



AGENDA
VILLAGE COUNCIL MEETING
VILLAGE HALL COUNCIL CHAMBERS
226 CYPRESS LANE ■ PALM SPRINGS, FL 33461
SEPTEMBER 26, 2024
6:30 PM

COUNCIL

- | | |
|---|--|
| ☐ Mayor Bev Smith | |
| ☐ Vice Mayor Patti Waller | ☐ Mayor Pro Tem Kim Schmitz |
| ☐ Council Member Joni Brinkman | ☐ Council Member Gary Ready |

ADMINISTRATION

- | | |
|--|---|
| ☐ Village Manager Michael Bornstein | ☐ Village Attorney Christy Goddeau |
| ☐ Village Clerk Kimberly Wynn | |

If an individual wishes to challenge any decision made by the Council regarding any matter under consideration, they must have a copy of the proceedings. To do so, they may need to ensure that a complete and accurate record of the proceedings is available. This recording should include all testimonies and evidence that will form the basis of the appeal.

CALL TO ORDER

ROLL CALL

INVOCATION

PLEDGE OF ALLEGIANCE

ADDITIONS, DELETIONS OR MODIFICATIONS, AND APPROVAL OF AGENDA

Motion	Second	Vote
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CONSENT AGENDA

(Public Comment on Consent Agenda Items is permissible prior to voting)

1. **Resolution No. 2024-45 Contract Award RFP No. 2024R-005 Holiday Tree**

Lighting and Decoration Displays - Parks and Recreation Department (FY 2025 Funded - General Fund) - Shellard Lighting Design, LLC: Motion for the approval of Resolution No. 2024-45 to award RFP No. 2024R-005, the Holiday Tree Lighting and Decoration Project, to Shellard Lighting Design, LLC for a period of three years, with the option to renew for two additional years, based on the outlined pricing structure. Funding will be available contingent upon the approval of the FY25 General Fund - Public Works Budget.

Staff: Juan Ruiz, Director of Parks and Recreation

2. **Resolution No. 2024-41 Contract Award ITB No. 2024B-014 - Main & RL Pratt Water Treatment Plants Ammonia Feed System Improvements Project Award (Task Order No. 321 & 322) – Utilities Department (FY25 Budget Funded – Water & Sewer Enterprise Fund) - Florida Design Drilling, LLC:** Motion for the approval of Resolution No. 2024-41 to award ITB No. 2024B-014 - Task Order No. 321 and 322 with Florida Design Drilling, LLC for \$984,400.00 for replacement and improvements associated with the Main and RL Pratt Water Treatment Plants for the Ammonia Feed System Improvements. Funding to support the proposed Main & RL Pratt Water Treatment Plants Ammonia Feed System improvements is available within the FY 2024 Budget – Water & Sewer Enterprise Fund:

Note: The proposed bid amount of \$984,400.00 was submitted by Florida Design Drilling, LLC, and was above the engineer's estimate of \$949,300.00.

The Village will not expend more than the amount within the approved budget as it may be adopted/amended each year for these goods and/or services over the term of this contract.

Staff: Jimmie Johnson, Utilities Director, Paul Ward, Assistant Director of Utilities

3. **Resolution No. 2024-40 Replacement of Surficial Aquifer Well No. 14 Project Award (Task Orders No. 316 & 323) ITB #2024B-015 - All Webbs Enterprises, Inc.:** Motion for the approval of Resolution No. 2024-40 to award ITB No. 2024B-015 - Task Orders No. 316 and 323 to All Webbs Enterprises for \$1,742,114.00 to reconstruct one existing production Well No. 14 and Emergency Back-Up Generator for Surficial Aquifer Well No. 14. Funding to support the Reconstruction of Surficial Aquifer Well No. 14 (Task Orders No. 316 and 323) is available within the FY 2024 - Water and Sewer Enterprise Fund. An internal budget transfer or amendment to support this proposed cost above the budgeted amount will be completed within the Water and Sewer Enterprise Fund at a later date, if necessary.

Staff: Paul Ward, Assistant Director of Utilities, Jimmie Johnson, Utilities Director

4. **Professional Services Agreement - Lobbying Services - Ronald L. Book, P.A.:** Motion to approve a Professional Services Agreement with Ronald L. Book, P.A., for a retainer amount of \$50,000 for state lobbying services. Funding that is available is the proposed FY 2025 Village Council Budget.

Staff: Kimberly Glas-Castro, Assistant Village Manager

5. **Sodium Hypochlorite Contract - Piggyback - Utilities Department (FY 2025 Budget Funded - Water & Sewer Enterprise Fund) - Allied Universal Corporation:** Approve a piggyback agreement with Allied Universal Corporation for a Sodium Hypochlorite Contract - Piggyback - Utilities Department (FY 2025 Budget Funded - Water & Sewer Enterprise Fund) - Allied Universal Corporation.
Staff: Paul Ward, Assistant Director of Utilities
6. **Change Order #2 to Rosso Site Development for the Davis Road Stormwater Improvements Project in an amount not to exceed \$203,407.33 (ARPA - TO#291):** Motion for the approval of Change Order #2 with Rosso Site Development for an amount not to exceed \$203,407.33 for the importation of clean fill, haul-off/disposal of muck, and loss of crew production to compensate the contractor related to the Davis Road Stormwater Improvement Project. This is an ARPA Funded project.
Staff: Felipe Lofaso, Public Works Director, Timothy Crespo, Assistant Public Works Director
7. **Approve Main and RL Pratt Water Treatment Plants Protective Coating System Restoration (Task Orders No. 343 & 344) - Work Authorization No. KH-U24 - Utilities Department (FY 2025-Water & Sewer Enterprise Fund) - Kimley-Horn and Associates Inc.:** Motion for the approval of Task Orders No. 343 and 344 - Work Authorization No. KH-U24 to Kimley-Horn and Associates, Inc. for the amount of \$75,000 to perform protective coating system restoration work to the infrastructure at the Main and RL Pratt Water Treatment Plants (WTPs). Funding to support purchases under this proposed agreement is available within the FY 2025 Budget - Water & Sewer Enterprise Fund.
Staff: Paul Ward, Assistant Director of Utilities, Jimmie Johnson, Utilities Director
8. **Authorize Emergency Repair - Force Main Repair Florida Mango Road - Utilities (FY 2024 Budget - Water & Sewer Enterprise Fund):** Motion to approve an emergency repair and extend the existing Piggyback agreement with the City of Lake Worth for a valve on the Village's 18" force main that runs along Florida Mango Road and interconnects with The City of Lake Worth Beach. Hinterland Group, Inc. was hired for repairs and cleanup, costing \$154,225.96. Funding to support the emergency purchase is available from the FY 2024 Budget - Water & Sewer Enterprise Fund.
Staff: Paul Ward, Assistant Director of Utilities

End of Consent Agenda....

Motion	Second	Vote
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PRESENTATIONS

9. Helix Urgent Care 21st Anniversary Proclamation

REGULAR AGENDA

PUBLIC COMMENT (Three-minute limit)

PUBLIC HEARINGS

10. **(Second Reading/Final Budget Adoption) Ordinance No. 2024-07 - Adoption of FY 24-25 Millage Rates - Operating & Debt Service:** Motion to approve Ordinance No. 2024-07 on First Reading for the FY 24-25 operating millage rate for the Village of Palm Springs is hereby levied for 3.5000 mills which is a 1.12% decrease, below the rolled-back rate of \$3.5396. The real property tax roll for the current calendar year has been certified by the Palm Beach County Property Appraiser for a nonexempt valuation of \$1,989,329,411 and of tangible personal property for nonexempt valuation of \$86,692,464 of a total gross taxable value for operating purposes of \$2,076,021,875.
Staff: Mara Frederiksen, Finance Director
11. **(Second Reading/ Final Budget Adoption) Ordinance No. 2024-08 - Adopt FY 2024-2025 Budget:** Motion to approve Ordinance No. 2024-08; adopting an annual budget for the year beginning October 1, 2024, and ending September 30, 2025, in the amount of \$102,036,208 for the Village's projected operating expenditures on Final Reading.
Staff: Mara Frederiksen, Finance Director
12. **Resolution No. 2024-44 - Palm Beach Habilitation Center - 4522 South Congress Avenue - Site Plan Amendment (SPR24-05) and Special Exception Use (PSSE24-02) to allow the creation of an Arts and Cultural Center:** Motion to approve Resolution No. 2024-44 for a Site Plan Amendment (SPR24-05) and Special Exception Use (PSSE24-02) approval to allow the conversion of three (3) buildings into an Arts and Cultural Center for its clients within the Commercial General property located at 4522 South Congress Avenue.
Staff: Iramis Cabrera, PZB Director

ACTIONS AND REPORTS

VILLAGE MANAGER COMMENTS

VILLAGE COUNCIL COMMENTS

ADJOURNMENT

NEXT MEETING THURSDAY, OCTOBER 10, 2024 AT 6:30 PM

Village of Palm Springs

Title VI/Nondiscrimination Policy

I. Policy Statement:

The Village of Palm Springs values diversity and welcomes input from all interested parties, regardless of cultural identity, background, or income level. Moreover, the Village believes the best programs and services result from careful consideration of the needs of all its communities and when those communities are involved in the decision-making process. The Village does not tolerate discrimination in any of its programs, services, or activities. Pursuant to Title VI of the Civil Rights Act of 1964 and other federal and state authorities, the Village will not exclude from participation in, deny the benefits of, or subject to discrimination anyone on the grounds of race, color, national origin, sex, age, disability, religion, or family status.

II. Persons with Disabilities:

Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA) and related federal and state laws and regulations forbid discrimination against those who have disabilities. These laws require federal-aid recipients and other government entities to take affirmative steps to reasonably accommodate those with disabilities and ensure that their needs are equitably represented.

The Village will make every effort to ensure that its facilities, programs, services, and activities are accessible to those with disabilities. The Village will also make every effort to ensure that its advisory committees, public involvement activities and all other programs, services and activities include representation by communities with disabilities and disability service groups.

The Village encourages the public to report any facility, program, service, or activity that appears inaccessible to those who are disabled. Also, the Village will provide reasonable accommodation to individuals with disabilities who wish to participate in public involvement events or who require special assistance to access facilities, programs, services, or activities. Because providing reasonable accommodation may require outside assistance, the Village asks that requests be made at least three (3) business days prior to the need for accommodation. Questions, concerns, comments, or requests for accommodation should be made to the Village ADA Officer:

Name: Ashley Saingilus, Human Resources Director
Address: 226 Cypress Lane, Palm Springs, FL 33461
Email: asaingilus@vpsfl.org
Phone: (561) 584-8200 Ext. 8421

III. Complaint Procedures:

The Village has established a discrimination complaint procedure and will take prompt and reasonable action to investigate and eliminate discrimination when found. Any person who believes that he or she has been subjected to discrimination based upon race, color, national origin, sex, religion, age, disability or family status in any Village program, service or activity may file a complaint with the Village Title VI/Nondiscrimination Coordinator:

Name: Janette Piedra, Human Resources Manager
Address: 226 Cypress Lane, Palm Springs, FL 33461
Email: jpiedra@vpsfl.org
Phone: (561) 584-8200 Ext. 8422



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Parks & Recreation

ITEM #1: Resolution No. 2024-XX Contract Award RFP No. 2024R-005 Holiday Tree Lighting and Decoration Displays - Parks and Recreation Department (FY 2025 Funded - General Fund) - Shellard Lighting Design, LLC

SUMMARY: The Village Council is asked to approve the award of the contract for Holiday Season Tree Lighting and Decorations to Shellard Lighting, LLC. This contract will cover various village locations for an initial three-year period with the option for two one-year renewals.

A Request for Proposal (RFP No. 2024R-005) was issued for the provision of tree lighting and decorative services for the holiday season throughout several village locations. The Village received five responses to the RFP. The evaluation committee, after reviewing all proposals based on price, experience, and service offerings, has selected Shellard Lighting as the preferred vendor.

Shellard Lighting was chosen as the most qualified and cost-effective vendor for this project. Their proposal was deemed to offer the best value for the Village based on competitive pricing, quality of service, completeness of proposal and their proven experience in similar municipal projects.

Contract Details:

- **Duration:** Three (3) years, with two (2) one-year renewal options.
 - **Year 1 Cost:** Not to exceed \$33,000.
 - **Year 2 and 3 Pricing:** Vendor has proposed a 12% decrease in pricing for years 2 and 3.
 - **Renewal Years 4 and 5 Pricing:** Vendor has proposed a 15% reduction in costs for years 4 and 5, should the Village exercise the renewal options.

The Village Council is recommended to approve the award of the Holiday Season Tree Lighting and Decorations contract to Shellard Lighting for an initial three-year term, with the option to renew for two additional years, based on the outlined pricing structure.

The proposed agreement was prepared by the Village Attorney and reviewed by the Parks and Recreation Director, Public Works Assistant Director, and the Finance Director.

FISCAL IMPACT:

Funding to support this purchase is available within the FY 2025 Budget - General Fund (Public Works). The year one (1) cost will not exceed \$33,000. Budget considerations for future years as

proposed by the selected vendor (years 2 and 3) should account for a 12% price decrease each year. Should the Village opt to extend the contract for years 4 and 5, a 15% reduction will be applied.

ATTACHMENTS:

1. Proposed Resolution No. 2024-45 Holiday Tree Lighting and Decorations
2. Holiday Tree Lighting and Decorations Agreement
3. Shellard Lighting LLC Attachment A
4. RFP #2024R-005 Bid Documents

RESOLUTION 2024-45

A RESOLUTION OF THE VILLAGE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, APPROVING A CONTRACT AGREEMENT WITH SHELLARD LIGHTING DESIGNS, LLC – HOLIDAY TREE LIGHTING AND DECORATIONS – FOR TREE LIGHTING AND DECORATIVE SERVICES FOR THE HOLIDAY SEASON THROUGHOUT SEVERAL VILLAGE LOCATIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Village issued the Request for Proposals for Holiday Tree Lighting and Decorations (RFP 2024R-005) (“RFP”) to provide decorative services during the holiday season for multiple locations throughout the Village; and

WHEREAS, the Village advertised the RFP in the Lake Worth Herald on June 20, 2024; and

WHEREAS, the Village's Selection Committee received five (5) responses to the RFP and met on September 9, 2024, to discuss each rank of each firm; and

WHEREAS, the Selection Committee consisted of representatives from Parks and Recreation, Public Works, and the Library Service from firms; and

WHEREAS, Village staff recommended Shellard Lighting Designs, LLC based on their qualifications, experience and expertise, location and delivery approach, availability fees, and references.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, AS FOLLOWS:

Section 1: The foregoing recitals are incorporated into this Resolution as true and correct findings of the Village Council.

Section 2: The Village Council approves entering a three-year contract agreement with an option to renew for two (2) additional years attached as Exhibit “A” with Shellard Lighting Design, LLC.

Section 3: The annual fee for the first year will not exceed \$33,000; Year two (2) and three (3), the vendor has proposed a 12% decrease in pricing. If the Village renews for two additional one-year terms, Shellard Lighting Design, LLC has proposed a 15% reduction in cost.

Section 4: This resolution shall become effective immediately upon its passage and adoption.

Council Member _____ offered the foregoing Resolution. Council Member _____ seconded the motion, and upon being put to the vote, the vote was as follows:

Aye	Nay	Absent
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BEV SMITH, MAYOR

PATTI WALLER, VICE MAYOR

KIM SCHMITZ, MAYOR PRO TEM

JONI BRINKMAN, COUNCIL MEMBER

GARY READY, COUNCIL MEMBER

The Mayor thereupon declared this Resolution duly passed and adopted this 26th day of September 2024.

VILLAGE OF PALM SPRINGS, FLORIDA BY:

BY: _____
BEV SMITH, MAYOR

ATTEST:

BY: _____
KIMBERLY M. WYNN, VILLAGE CLERK

REVIEWED FOR FORM AND LEGAL SUFFICIENCY BY:

BY: _____
CHRISTY GODDEAU, VILLAGE ATTORNEY

**AGREEMENT FOR GOODS AND SERVICES
(Holiday Tree Lighting and Decorations)**

THIS AGREEMENT FOR GOODS AND SERVICES ("Agreement") is made on _____, 2024, between the **Village of Palm Springs, Florida**, a municipal corporation ("VILLAGE"), and **Shellard Lighting**, a **Limited Liability Corporation** authorized to do business in the State of Florida ("CONTRACTOR").

RECITALS

WHEREAS, the VILLAGE is a municipal corporation organized and existing pursuant to the Constitution of the State of Florida and the Village of Palm Springs Charter; and

WHEREAS, the VILLAGE issued Request for Proposals #2024R-005 for holiday tree lighting and decorations ("RFP"); and

WHEREAS, CONTRACTOR submitted a proposal in response to the RFP and the VILLAGE desires to accept the CONTRACTOR's proposal (with the CONTRACTOR's proposed fee attached hereto as **Exhibit "A"**) for CONTRACTOR to render the goods and services to the VILLAGE as provided herein; and

WHEREAS, the CONTRACTOR further warrants that it is experienced and capable of performing the tasks hereunder in a professional and competent manner; and

WHEREAS, the VILLAGE finds awarding the RFP to the CONTRACTOR as described herein serves a valid public purpose.

NOW THEREFORE, the VILLAGE hereby engages the services of the CONTRACTOR, and in consideration of the mutual promises herein contained, the sufficiency of which is hereby acknowledged by both parties, the parties agree as follows:

1. TERM

1.1 The term of this Agreement shall be for three (3) years, with the option to renew for two (2) additional one (1) year renewal periods upon the mutual agreement of both parties and dependent on the annual appropriation of funds by the VILLAGE's Village Council. The renewal terms may be approved by the VILLAGE Manager. Notwithstanding the foregoing, this Agreement may be earlier terminated as set forth in this Agreement.

2. SCOPE OF WORK

2.1 The scope of work includes the installation and management of decorative holiday lighting on trees and holiday decorations at various locations throughout the Village of Palm Spring, Florida, as more specifically set forth in the RFP, which is incorporated herein by reference. The CONTRACTOR's provisions of all necessary goods and services under the scope of work shall commence upon the issuance of a Purchase Order by the VILLAGE.

2.2 The CONTRACTOR represents to the VILLAGE that the scope of work provided under this Agreement shall be in accordance with accepted and established trade practices and procedures recognized in the CONTRACTOR's trade in general and that the materials shall conform to the highest standards and in accordance with this Agreement.

2.3 The CONTRACTOR represents that it is licensed to do business in the State of Florida and holds and will maintain all applicable licenses required for the work to be completed under this Agreement. The CONTRACTOR further warrants its capability and experience to perform the work provided for herein in a professional and competent manner.

2.4 The scope of work shall be completed in accordance with the terms and conditions set forth in this Agreement and the RFP.

3. INDEPENDENT CONTRACTOR; USE OF AGENTS OR ASSISTANTS

3.1 The CONTRACTOR is and shall be, in the performance of the scope of work under this Agreement, an independent contractor, and not an employee, agent, or servant of the VILLAGE. All persons engaged in any of the scope of work performed pursuant to this Agreement shall at all times, and in all places, be subject to the CONTRACTOR's sole direction, supervision, and control. The CONTRACTOR shall exercise control over the means and manner in which it and its employees perform the scope of work.

3.2 To the extent reasonably necessary to enable the CONTRACTOR to perform the scope of work hereunder, the CONTRACTOR shall be authorized to engage the services of any agents or assistants which it may deem proper, and may further employ, engage, or retain the services of such other persons or corporations to aid or assist in the proper performance of its duties. All costs of the services of, or expenses incurred by, such agents or assistants shall be paid by the CONTRACTOR.

4. GOODS AND SERVICES

4.1 The CONTRACTOR shall provide all goods, materials, and services as more specifically set forth in the scope of work and RFP.

5. CONTRACTOR'S FEE

5.1 For goods and services to be rendered under this Agreement's scope of work, the CONTRACTOR shall be entitled to fees as set forth in **Exhibit "A"**.

5.2 Should the VILLAGE require additional materials or services, not included in this Agreement's scope of work, fees and payment for such work will be set forth in a separate amendment, as authorized in accordance with the VILLAGE's procurement code prior to any such additional materials or services being provided by the CONTRACTOR.

5.3 The VILLAGE's ordering mechanism for the Scope of Work performed under this Agreement may be a VILLAGE Purchase Order; however, the terms and conditions stated in a VILLAGE Purchase Order shall not apply. CONTRACTOR shall not exceed amounts expressed on any Purchase Order. Note that the VILLAGE's Fiscal Year ends on September 30th of each calendar year. The VILLAGE cannot authorize the purchase of goods or services beyond September 30th of each calendar year, prior to the annual budget being approved by the VILLAGE's Village Council. Additionally, the VILLAGE must have budgeted appropriate funds for the goods and services in any subsequent Fiscal Year. If the budget is approved for said goods and services, the VILLAGE will issue a new Purchase Order for required and approved goods and/or services.

6. MAXIMUM COSTS

6.1 The CONTRACTOR expressly acknowledges and agrees that the total cost to complete the scope of work in accordance with the RFP and this Agreement is not to exceed **Thirty-Three Thousand Dollars (\$33,000.00) annually**, and no additional costs shall be authorized without prior written approval from the VILLAGE.

7. INVOICE

7.1 The CONTRACTOR shall submit an itemized invoice to the VILLAGE for approval prior to receiving compensation. The CONTRACTOR shall be paid within forty-five (45) days from receipt of a proper invoice consistent with section 218.74, Florida Statutes.

7.2 If the VILLAGE disputes any invoice or part of an invoice, VILLAGE shall notify the CONTRACTOR within a reasonable time after receipt of the invoice. The VILLAGE reserves the right to off-set, reduce or withhold any payment to the CONTRACTOR until the dispute is resolved.

8. AUDIT BY VILLAGE

8.1 The CONTRACTOR shall permit the VILLAGE, or any authorized representatives of the VILLAGE, at all reasonable times, access to and the right to examine all records, books, papers or documents related to the CONTRACTOR's performance under this Agreement including, but not limited to, expenses for sub-contractors, agents or assistants, direct and indirect charges for work performed and detailed documentation for all such work performed or to be performed under this Agreement.

9. COPIES OF DATA/DOCUMENTS

9.1 Copies or original documents prepared by the CONTRACTOR in relation to work associated with this Agreement shall be provided to the VILLAGE. Data collected, stored, and/or provided shall be in a form acceptable to the VILLAGE and agreed upon by the VILLAGE.

10. OWNERSHIP

10.1 Each and every report, draft, work product, map, record, and other document reproduced, prepared, or caused to be prepared by the CONTRACTOR pursuant to or in connection with this Agreement shall be the exclusive property of the VILLAGE.

11. WRITTEN AUTHORIZATION REQUIRED

11.1 The CONTRACTOR shall not make changes in the scope of work or perform any additional services or provide any additional goods or material under this Agreement without first obtaining written authorization from the VILLAGE for such additional services, goods, or materials. Additional services, goods, or materials provided without written authorization shall be done at the CONTRACTOR's sole risk and without payment from the VILLAGE.

12. DEFAULTS, TERMINATION OF AGREEMENT

12.1 If the CONTRACTOR fails to timely perform the scope of work or has failed in any other respect to satisfactorily perform in accordance with this Agreement; or, is in material breach of a term or condition of this Agreement, the VILLAGE Manager may give written notice to the CONTRACTOR specifying defaults to be remedied. Such notice shall set forth the basis for any

dissatisfaction and suggest corrective measures. If the CONTRACTOR does not remedy defaults within the allotted time or commence good faith steps to remedy the default to the reasonable satisfaction of the VILLAGE Manager, the VILLAGE may take such action to remedy the default and all expenses related thereto shall be borne by the CONTRACTOR including, without limitation, utilization of another contractor to provide for such work; and/or, the VILLAGE may withhold any money due or which may become due to the CONTRACTOR for such expense and/or work related to the claimed default. Alternatively, or in addition to the foregoing, if after ten (10) days the CONTRACTOR has not remedied defaults or commenced good faith steps to remedy defaults to the satisfaction of the VILLAGE Manager, the VILLAGE may elect to terminate this Agreement. No compensation shall be paid for de-mobilization, take-down, disengagement wind-down, lost profits or other costs incurred due to termination of this Agreement under this paragraph.

12.2 Notwithstanding paragraph 12.1, the VILLAGE reserves the right and may elect to terminate this Agreement at any time, with or without cause. At such time, the CONTRACTOR would be compensated only for that work which has been satisfactorily completed to the date of termination. No compensation shall be paid for de-mobilization, take-down, disengagement wind-down, lost profits or other costs incurred due to termination of this Agreement under this paragraph.

13. INSURANCE

13.1. Prior to commencing the scope of work, the CONTRACTOR shall provide certificates evidencing insurance coverage as required in the RFP. Failure to comply with the foregoing requirement shall not relieve the CONTRACTOR of its liability and obligations under this Agreement. All insurance, other than Workers' Compensation and Professional Liability, required in the RFP shall specifically include the "Village of Palm Springs" as an additional insured, which shall be clearly stated in the endorsements section of Certificates of Insurance.

14. WAIVER OF BREACH

14.1 The waiver by either party of any breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach of that same or any other provision.

15. INDEMNITY

15.1 The CONTRACTOR shall indemnify, defend and hold harmless, to the maximum extent permitted by law, the VILLAGE and its officers, agents, employees and representatives, from and against any and all liability, suit, actions, proceedings, judgments, claims, losses, liens, damages, injuries (whether in contract or in tort, including personal injury, accidental death, patent infringement or property damage, and regardless, of whether the allegations are false, fraudulent or groundless), costs and expenses (including attorney's fees, litigation, arbitration, mediation, appeal expenses) to the extent arising out of or alleged to have arisen out of the acts, omissions, or neglect of the CONTRACTOR or any of its agents, employees, subcontractors or by anyone the CONTRACTOR directly or indirectly utilizes to perform the scope of work under this Agreement.

15.2 The CONTRACTOR's obligation to indemnify, defend and hold harmless shall remain in effect and shall be binding upon the CONTRACTOR whether such injury or damage shall accrue, or may be discovered, before or after termination of this Agreement.

15.3 Compliance with any insurance requirements required elsewhere in this Agreement shall not relieve CONTRACTOR of its liability and obligation to defend, hold harmless and indemnify the VILLAGE as set forth in this section.

15.4 Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the VILLAGE or CONTRACTOR. Further, nothing contained in this Agreement shall be construed or interpreted as consent by the VILLAGE to be sued, nor as a waiver of sovereign immunity beyond the waiver provided in section 768.28, Florida Statutes, as amended from time to time.

15.5 The CONTRACTOR's failure to comply with this section's provisions shall constitute a material breach upon which the VILLAGE may immediately terminate or suspend this Agreement.

16. ENTIRE AGREEMENT AND ORDER OF PRECEDENCE

16.1 This Agreement consists of the terms and conditions provided herein; **Exhibit "A"** (CONTRACTOR's Fee); the VILLAGE issued Purchase Order(s); and, the RFP (including all specifications, exhibits and addenda attached thereto or referenced therein). To the extent that there exists a conflict between this Agreement and the remaining documents, the terms, conditions, covenants, and/or provisions of this Agreement shall prevail with any VILLAGE issued Purchase Order(s) and the RFP next taking precedence. Wherever possible, the provisions of such documents shall be construed in such a manner as to avoid conflicts between provisions of the various documents.

16.2 This Agreement supersedes any and all other Agreements, either oral or in writing, between the parties hereto with respect to the subject matter hereof, and no other Agreement, statement, or promise relating to the subject matter of this Agreement which is not contained herein shall be valid or binding.

17. ASSIGNMENT

17.1 Nothing under this Agreement shall be construed to give any rights or benefits to any party other than the VILLAGE and the CONTRACTOR. All duties and responsibilities under this Agreement shall be for the sole and exclusive benefit of the VILLAGE and the CONTRACTOR and not for the benefit of any other party. The CONTRACTOR shall not assign any right or interest in this Agreement, and shall not delegate any duty owned, without the VILLAGE's prior written consent. Any attempted assignment or delegation shall be void and totally ineffective for all purposes, and shall constitute a material breach upon which the VILLAGE may immediately terminate or suspend this Agreement.

17.2 In the event the VILLAGE consents to an assignment or delegation, the assignee, delegate, or its legal representative shall agree in writing to personally assume, perform, and be bound by this Agreement's covenants, conditions, obligations and provisions.

18. SUCCESSORS AND ASSIGNS

18.1 Subject to the provision regarding assignment, this Agreement shall be binding on the heirs, executors, administrators, successors, and assigns of the respective parties.

19. WAIVER OF TRIAL BY JURY

19.1 TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THIS AGREEMENT.

20. GOVERNING LAW AND REMEDIES

20.1 The validity of this Agreement and of any of its terms or provisions, as well as the rights and duties of the parties hereunder, shall be governed by the laws of the State of Florida and venue for any disputes shall be exclusively in Palm Beach County, Florida.

20.2 No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

21. TIME IS OF THE ESSENCE

21.1 Time is of the essence in the completion of the scope of work as specified herein and the RFP.

22. NOTICES

22.1 All notices hereunder must be in writing and, unless otherwise provided herein, shall be deemed validly given on the date when personally delivered to the address indicated below; or on the third (3rd) business day following deposit, postage prepaid, using certified mail, return receipt requested, in any U.S. postal mailbox or at any U.S. Post Office; or when sent via nationally recognized overnight courier to the address indicated below. Should the VILLAGE or the CONTRACTOR have a change of address, the other party shall immediately be notified in writing of such change, provided, however, that each address for notice must include a street address and not merely a post office box. All notices, demands or requests from the CONTRACTOR to the VILLAGE shall be given to the VILLAGE address as follows:

Village of Palm Springs
Attn: Village Manager
226 Cypress Lane
Palm Springs, FL 33461

All notices, demands or requests from the VILLAGE to the CONTRACTOR shall be given to the CONTRACTOR address as follows:

23. SEVERABILITY

23.1 Should any part, term or provision of this Agreement or any document required herein to be executed be declared invalid, void or unenforceable, all remaining parts, terms and provisions hereof shall remain in full force and effect and shall in no way be invalidated, impaired or affected thereby.

24. DELAYS AND FORCES OF NATURE

24.1 The CONTRACTOR shall not be considered in default by reason of a delay in timely performance if such delay and failure arises out of causes reasonably beyond the control of the CONTRACTOR or its subcontractors and without their fault or negligence. Upon the CONTRACTOR's request, the VILLAGE shall consider the facts and extent of any such delay and failure to timely perform the work for reason beyond the control of the CONTRACTOR and, if the CONTRACTOR's delay and failure to timely perform was without it or its subcontractors' fault or negligence, as determined by the VILLAGE in its sole discretion, the time of completion shall be extended for any reasonable time that the VILLAGE, in its sole discretion, may decide; subject to the VILLAGE's rights to change, terminate, or stop any or all of the work at any time. If the CONTRACTOR is delayed at any time in the progress of the work by any act or neglect of the VILLAGE or its employees, or by any other contractor employed by the VILLAGE, or by changes ordered by the VILLAGE or in an unusual delay in transportation, unavoidable casualties, or any causes beyond the CONTRACTOR's control, or by delay authorized by the VILLAGE pending negotiation or by any cause which the VILLAGE, in its sole discretion, shall decide justifies the delay, then the time of completion shall be extended for any reasonable time the VILLAGE, in its sole discretion, may decide. No extension of time shall be made for any delay occurring more than five (5) days before a claim therefore is made in writing to the VILLAGE. In the case of continuing cause of delay, only one (1) claim is necessary. The CONTRACTOR's sole remedy for a delay in completion of the work for any reason will be an extension of time to complete the work and CONTRACTOR specifically waives any right to seek any monetary damages or losses for a delay in completion of the work, including, but not limited to, waiving any right to seek monetary amounts for lost profits, additional overhead, salaries, lost productivity, efficiency losses, or any other alleged monetary losses which may be allegedly suffered by CONTRACTOR due to a delay in completion of the work.

24.2 Neither party shall be considered in default in the performance of its obligations hereunder or any of them, if such obligations were prevented or delayed by any cause, existing or future beyond the reasonable control of such party which include but are not limited to acts of God, labor disputes or civil unrest.

25. COUNTERPARTS

25.1 This Agreement may be executed in counterparts, each of which shall be an original, but all of which shall constitute one and the same document. Each of the parties shall sign a sufficient number of counterparts, so that each party will receive a fully executed original of this Agreement.

26. LIMITATIONS OF LIABILITY

26.1 Under no circumstances shall either party be liable to the other for any consequential, incidental, special, punitive, or any other form of indirect or non-compensatory damages.

27. PUBLIC ENTITY CRIMES

27.1 CONTRACTOR acknowledges and agrees that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier or sub-contractor under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list. CONTRACTOR will advise the VILLAGE immediately if it becomes aware of any violation of this statute.

28. PREPARATION

28.1 This Agreement shall not be construed more strongly against either party regardless of who was more responsible for its preparation.

29. PALM BEACH COUNTY INSPECTOR GENERAL

29.1 In accordance with Palm Beach County ordinance number 2011-009, the CONTRACTOR acknowledges that this Agreement may be subject to investigation and/or audit by the Palm Beach County Inspector General. The CONTRACTOR has reviewed Palm Beach County ordinance number 2011-009 and is aware of its rights and/or obligations under such ordinance.

30. ENFORCEMENT COSTS

30.1 All parties shall be responsible for their own attorneys' fees, court costs and expenses if any legal action or other proceeding is brought for any dispute, disagreement, or issue of construction or interpretation arising hereunder whether relating to the Agreement's execution, validity, the obligations provided therein, or performance of this Agreement, or because of an alleged breach, default or misrepresentation in connection with any provisions of this Agreement.

31. PUBLIC RECORDS

31.1 CONTRACTOR shall comply with Florida's Public Records Laws, Chapter 119, Florida Statutes, and, if it is acting on behalf of the VILLAGE as provided under section 119.011(2), the CONTRACTOR specifically agrees to:

- (a) Keep and maintain public records required by the VILLAGE to perform the services under this Agreement.
- (b) Upon request from the VILLAGE's custodian of public records, provide the VILLAGE with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this Chapter 119, Florida Statutes, or as otherwise provided by law.
- (c) Ensure that said public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and following completion of the Agreement, if the CONTRACTOR does not transfer the records to the VILLAGE.
- (d) Upon the completion of the Agreement, transfer, at no cost, to the VILLAGE all public records in possession of the CONTRACTOR or keep and maintain public records required by the VILLAGE to perform the services. If the CONTRACTOR transfers all public records to the VILLAGE upon completion of the Agreement, the

CONTRACTOR shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONTRACTOR keeps and maintains public records upon completion of the Agreement, the CONTRACTOR shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the VILLAGE, upon request from the VILLAGE's custodian of public records, in a format that is compatible with the information technology systems of the VILLAGE.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (561) 584-8200 Ext. 8431, kwynn@vpsfl.org, OR BY MAIL SENT TO THE PALM SPRINGS VILLAGE, 226 CYPRESS LANE, PALM SPRINGS, FL 33461.

32. COPYRIGHTS AND/OR PATENT RIGHTS

32.1 CONTRACTOR warrants that there has been no violation of copyrights and/or patent rights in the manufacturing, producing or selling of the goods, shipped or ordered, as a result of this Agreement and the CONTRACTOR agrees to hold the VILLAGE harmless from any and all liability, loss, or expense occasioned by any such violation.

33. COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH

33.1 CONTRACTOR certifies that all material, equipment, etc., contained in this bid meets all OSHA requirements. CONTRACTOR further certifies that, if the material, equipment, etc., delivered is subsequently found to be deficient in any OSHA requirements in effect on date of delivery, all costs necessary to bring the material, equipment, etc. into compliance with the aforementioned requirements shall be borne by the CONTRACTOR.

34. FEDERAL AND STATE TAX

34.1 The VILLAGE is exempt from Federal Tax and State Tax for Tangible Personal Property. The Procurement Official will sign an exemption certificate submitted by the successful Proposer. Vendors or contractors doing business with the VILLAGE shall not be exempted from paying sales tax to their suppliers for materials to fulfill contractual obligations with the VILLAGE, nor shall any Vendor/Contractor be authorized to use the VILLAGE's tax Exemption Number in securing such materials.

35. PROTECTION OF PROPERTY

35.1 The CONTRACTOR shall at all times guard against damage or loss to the property of the VILLAGE or of other vendors or contractors and shall be held responsible for replacing or repairing any such loss or damage. The VILLAGE may withhold payment or make such deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the successful CONTRACTOR or its agents. The CONTRACTOR shall be responsible to safeguard all of their property such as tools and equipment while on site. The VILLAGE will not be held responsible for any loss of CONTRACTOR property due to theft or vandalism.

36. DAMAGE TO PERSONS OR PROPERTY

36.1 The responsibility for all damage to person or property arising out of or on account of work done under this Agreement shall rest upon the CONTRACTOR, and he/she shall save the VILLAGE and political unit thereof harmless from all claims made on account of such damages.

37. SAFETY: ACCIDENT PREVENTION.

37.1 In the performance of this Agreement, the CONTRACTOR shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation including without limitation Chapter 23 CFR 635. The CONTRACTOR shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the VILLAGE, may determine to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the Agreement.

37.2 It is a condition of this Agreement, and shall be made a condition of each subcontract, which the CONTRACTOR enters into pursuant to this Agreement (if authorized), that the CONTRACTOR and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

37.3 Pursuant to 29 CFR 1926.3, it is a condition of this Agreement that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

38. SCRUTINIZED COMPANIES AND E-VERIFY

38.1 As provided in Section 287.135, Florida Statutes, as amended from time to time, by entering into this Agreement, the CONTRACTOR certifies that it is not participating in a boycott of Israel. The VILLAGE and CONTRACTOR agree that the VILLAGE will have the right to terminate this Agreement if the CONTRACTOR is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

38.2 Pursuant to Section 448.095(2), Florida Statutes, if applicable, the CONTRACTOR shall register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all subcontractors (receiving funding under this Agreement) to register with and use the E-Verify system to verify the work authorization status of all the subcontractors' newly hired employees.

39. COMPLIANCE WITH SECTION 787.06.

39.1 By signing this Agreement as set forth below, the CONTRACTOR's authorized representative attests under penalty of perjury that the CONTRACTOR does not use coercion for labor or services as defined in section 787.06, Florida Statutes.

40. SURVIVABILITY

40.1 Any provision of this Agreement which is of a continuing nature or imposes an obligation which extends beyond the term of this Agreement shall survive its expiration or earlier termination.

IN WITNESS WHEREOF the parties hereto have made and executed this Agreement for Goods and Services (Holiday Tree Lighting and Decorations) on the day and year first above written.

VILLAGE OF PALM SPRINGS, FLORIDA

By: _____
Bev Smith, Mayor

ATTEST:

Approved as to form and legal sufficiency:

Kimberly Wynn, Village Clerk

Christy Goddeau, Village Attorney

CONTRACTOR: Shellard Lighting, LLC.

[Corporate Seal]

By: _____

Print Name: _____

Title: _____

STATE OF FLORIDA)
COUNTY OF PALM BEACH)

THE FOREGOING instrument was acknowledged before me by means of ___ physical presence or ___online notarization on this ____ day of _____, 2024, by _____ of _____, a _____ authorized to do business in the State of Florida, who is personally known to me or who has produced _____ as identification, and who did take an oath under penalty of perjury that the facts stated with regard to section 787.09, Florida Statutes, are true and correct, and that he or she is duly authorized to execute the foregoing instrument and bind the Contractor to the same.

Notary Seal:

Notary Public Signature

EXHIBIT "A"
(Contractor's Fee)



Request For Proposal 2024R-005

Village of Palm Springs

Holiday Tree Lighting and Decoration

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TAB 1: Letter of Interest

In 2014 an idea was placed on my heart and in my mind - to make and create change in this world. Sometimes we get these crazy ideas that are so far out into the future that we miss what is right in front of us; what we have the ability to change right now, in the present. In 2017 I was able to start my own lighting company after working for 3 years with a large lighting company. Starting off as a small company, with the resources I had at my disposal, I focused on where I could make an impact in people's lives. Since 2017 and every year since, Shellard Lighting Designs has volunteered its services and materials to help bring light and the Christmas spirit to an agency called Place of Hope. It is a community that was built to bring in foster children, to show them a love that they never knew existed. They are raised in a family environment and the life changes that occur are never ending. Being a part of something so fruitful has helped create a vision for Shellard Lighting each and every year.

Our work for individuals, neighborhood associations, and municipalities afforded us the opportunity to give back in this way to our community. Our work with municipalities has been exceptionally rewarding and we hope that you will consider Shellard Lighting to fulfill your vision this holiday season. Our promise to you is that the quality of our work, attention to detail, creativity and exceptional customer service will meet and exceed your expectations. This will be by our integrity of heart accompanied by our skillful hands.

Thank you for this opportunity to propose our services.

Sincerely,

Spencer Shellard
Owner/Operator
shellardlighting@gmail.com
C: 561.358.7869

A handwritten signature in cursive script that reads "Spencer Shellard". The ink is dark and the signature is fluid, with the first and last names being more prominent than the middle name.

TAB 2: Qualifications of Team, Experience and Expertise

Project Manager – Spencer Shellard

Position – MGR/Owner

Education – Florida Atlantic University

Experience – 10 years installing, designing and maintenance, 7 years as company owner.

Shellard Lighting has provided holiday lights and decorations for cities and downtown areas for the last five years. Our work with other cities would include The City of West Palm Beach CRA, The Town of Jupiter, The City of Greenacres, The City of Pompano Beach, The City of Aventura, The City of Riviera Beach, The City of Boynton Beach CRA and the West Palm Beach Downtown Development Authority.

A team of 8 installers plus myself will be designated for the installation/maintenance of this contract. Our team members each have several years of expertise in the holiday lighting field. The same team who installs the project would also provide any service that might be needed. We have found this extremely beneficial when servicing a site because it is personal to that particular staff member. They are aware of all of the ins and outs of the site. No subcontractors will be used.

Throughout the holiday seasons various service issues have occurred. The best way to handle these issues is not when they occur, but earlier in the year with proper planning. Last year we dealt with very strong winds for a few days straight. In the Town of Jupiter, we had street banners ripped from their poles and the perimeter fence around the christmas tree fell over. We had ordered over a dozen extra banners in the off season in the case of an emergency like the one we faced. We were able to go out the next day and replace the 8 ripped banners. With the perimeter fence, we teamed up with Jupiter's staff and acquired a pile of sandbags that they had already had on site. The fence was reconstructed and weighed down with sandbags to prevent the high winds from causing further damage.

Also due to the high winds that we sustained last season, the 5ft tall starburst tree topper that was installed on a 41ft tree in Riviera Beach had bent in half. Again, earlier in the year we had ordered an additional topper to be ready for any kind of emergency. The very next day we were able to replace the damaged one with a new one. We also have had our remaining starburst toppers reinforced with steel to prevent damage in the future.

Shellard Lighting has by no means faced every issue that may arise during the holiday season. The ones that we have faced, we have met head on with our integrity of heart and our skillful hands. We have resolved these issues in a timely, professional, and creative manner. We approach such issues as opportunities to learn and grow.

TAB 3: Firm Location, Project Delivery, and Approach

Shellard Lighting is located at the intersection of Haverhill and Purdy Lane. We are located just under 2 miles from your Village Hall. This will be beneficial for us as well as The Village Palm Springs. This will allow us to drive by your locations nightly to ensure all lights are working. The goal is to fix and service any issues before it is brought to your attention. Page 18 of the RFP states all issues must be resolved within a 72-hour time frame. Shellard Lighting will commit to a 24-hour time frame to resolve any issues. We will be on call 7 days a week, 24 hours a day.

Name and contact information maintenance staff:

Spencer Shellard: C. 5613587869. E. shellardlighting@gmail.com

I personally will facilitate correcting any issues for The Village. Call or text the number listed above at any time.

Week of November 11th – installation of just lights will occur – 3 days total

Week of November 18th – installation of snowflakes on building and north side pathway arches installed – 2 days total

Monday before Thanksgiving – all lights will be checked and tested ready to be lit at the Villages confirmation

During removals, Shellard Lighting will complete a thorough walk through of each area to ensure no debris has been left. All decorations and lights will be stored in Shellard Lighting facilities. Except The Villages own decorations.

We will meet The Village of Palm Springs installation time frame and removal time frame. All lights each year will be installed by the Monday before Thanksgiving unless otherwise specified. All lights will be removed no later than the 2nd week January of each year.

TAB 4: Firm's Resources, Personnel Availability, and Commitment

Shellard Lighting is committed to ensuring the schedule listed in tab 3 is met with 100% completion. We are located under 2 miles from your Village Hall and are accompanied by our experienced team.

If there is a team member of Palm Springs that would like daily updates during the installation process, we will be happy to make that happen. We will keep an opened line of communication between Shellard Lighting and The Village.

Shellard Lighting we be on site for any tree lighting events to ensure our lights are fully functional.

The project manager will be Spencer Shellard. His contact information is listed in tab 3. He will be 100% devoted to ensure a timely and professional installation. He will ensure all service issues are corrected in a 24-hour period. Lastly, we will ensure a smooth removal of all lights and decorations.

To keep The Villages best interest at the forefront, with the allotted budget you have proposed, Shellard Lighting will add additional arches to the pathway. 25 total. There is plenty of room left in the budget to include the RGB spritzers in the oak canopies if you desire. With the initial 3 year agreement, The Village will receive a 12% discount for each year. If The Village agrees to a year 4 and or a year 5, they will receive a 15% discount for each of those years.

Shellard Lighting is opened to changing and enhancing the areas within the scope of work each year if it is at your best interest. For example, to add different dimensions to the trees or to add displays to the area. Or to change out the light sets to RGB to be able to change colors and effects throughout the holiday season. We are here to serve you!

TAB 5: Scope of Work and Fees for Professional Services



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

PRICE SCHEDULE PROPOSAL SUBMITTAL FORM

Item No.	Description	Unit	Estimate Quantity	Bid Unit Price	Bid Price
1	Greenbrier at Congress- 9 Royal palms, white lights around trunks / green lights on bottom of palm fronds.	9			\$3532.32
2	Davis at 10 th Ave N = 14 Washingtonian palms, white lights around trunks/ green lights on bottom of palm fronds.	14			\$3608.88
3	Village Hall courtyard = 6 live oaks white lights	6			\$2420.00
4	Village Hall north side pathway = arches (300') arches must be minimum of 10' in height at center point of each arch, candy cane design	1			\$9308.00
5	Library east side pathway = 15 royal palms, white lights around trunk/green lights on bottom of palm fronds.	15			\$5887.20
6	Library south side parking lot island = 12 cabbage palms, white lights around trunks	12			\$1716.00
7	Individual Tree (s) add-ons 12 snowflakes				\$2350.00
	Royal Palms- white lights around trunks/green lights on bottom of palm fronds	1			
	Oak Trees- white lights	1			
	Cabbage Palms- white lights around trunks	1			
TOTAL OF ALL BID ITEMS					\$28,822.40

Additional Items

Install 8 RGB spritzers per oak tree canooy - 48 total

\$3907.20

Area 1: Greenbrier and Congress



1. Light the trunks and fronds of all 9 royal palm trees in the center median. The trunks will be lit with warm white LEDs and the fronds will be lit with green LEDs. Each tree will have 7 fronds lit.
 - 90 warm white sets total for the trunks
 - 63 green sets total for the fronds

Area 2: Davis at 10th Ave North



1. Light the trunks and fronds of 14 washingtonian palms. The trunks will be wrapped with warm white LEDs and the fronds will be lit with green LEDs. Each tree will have 8-9 fronds lit.
 - 117 warm white sets total for the trunks
 - 42 green sets total for the fronds

Area 3: Village Hall Courtyard



1. Light the trunks and branches of 6 oak trees with warm white LEDs. The lights will extend up into the tree where the leaves start.

- 110 sets total

Area 4: Village Hall North Side Pathway



1. Down the north pathway we will install 25 arches down the 300ft long pathway. An arch will be placed every 12 feet. The arches will be warm white LEDs (we can add red LEDs in the arches as well to create a candy cane effect) The height of the center of the arch will be 10ft and will extend about a foot off of the pathway on both sides. At either end of the arches, we will install 2 10ft tall x 3ft wide candy canes. *photo attached for visual
 - 25 arches
 - 4 10ft tall x 3ft wide candy canes



Area 5: Library East Side Pathway



1. Light the trunks and fronds of all 15 royal palm trees down the east side pathway. The trunks will be lit with warm white LEDS and the fronds will be lit with green LEDS. Each tree will have 7 fronds lit.
 - 150 warm white sets total for the trunks
 - 105 green sets total for the fronds

Area 6: Library South Side Parking Lot Island



1. Light the trunks of 13 cabbage palms in south side parking lot island. These trees will be wrapped with warm white LEDs.
 - 78 sets total

Area 7: Individual Tree Add-Ons

1. For some additional lighting, we will install 8 RGB spritzers throughout the canopy of each of the 6 oak trees in the village hall courtyard. The spritzers will be 16" and 24" in diameter. The spritzers will have the option to be blue, red, green, warm white, purple, pink, multi and gold. These colors will be partnered with several functions to fade, jump, twinkle and flash. This will be a very memorable dimension to these oak trees. These lights will be controlled by a remote for any city staff member to operate.



- 24 16" RGB spritzers
- 24 24" RGB spritzers

2. On the library building wall facing east we will install 12 snowflakes. They will be warm white in color. They will be 36", 48" and 60" in size. Snowflakes can be RGB as well to match the spritzers in the oak tree canopies.

- 5 36" snowflakes

- 5 48" snowflakes

- 2 60" snowflakes



TAB 6: References



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT J: REFERENCE FORM

RFP Number & Title: 2024R-005 Holiday Tree Lighting and

Decorations Reference: West Palm Beach Downtown Development Authority
(Company Name providing Reference)

Name/Title: Catherine Ast, District Services Manager
(Name and Title of Person providing Reference)

Project/Service: Banyan Parking Garage & Fern Street Chess Park
(Project/Service which references are being provided)

Project Manager: Catherine Ast
(Project for which references are being provided)

Telephone: 561-833-8873 Fax: _____

Describe the scope of work of the contract awarded by your company/agency to this contractor:

No.	Questions	Rating	Comments
1.	Rate the level of commitment of the firm to your project. Did they devote the time and management staff necessary for successful and timely work?	5	Shellard has been a great contractor. Helpful, professional, and timely.
2.	Rate the quality of customer service and the competence and accessibility of the personnel.	5	
3.	Rate how well the firm listened and understood the specific needs of your organization.	5	Not only did they do a great job, they worked with another contractor for us to ensure seamless collaboration.
4.	Rate how well the firm met the major schedule milestones for the project.	5	Everything was done in a timely manner. No issues
5.	Rate the firm's success at minimizing and controlling potential mistakes.	5	
6.	Rate the overall quality of the work.	5	Excellent Quality

VILLAGE OF PALM SPRINGS
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7.	Rate the technical competence of the firm and its personnel.	5	
8.	Rate the integrity and professionalism of the firm.	5	Very professional. Made a very good impression on our Board.
9.	If you have a similar contract to undertake in the future, would the firm be considered? Yes – No	YES	Without hesitation I would use them.

Rating: 1= Poor 2= Fair 3= Average 4= Good 5= Excellent



7/8/2024

Signature

Date



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT J: REFERENCE FORM

RFP Number & Title: 2024R-005 Holiday Tree Lighting and

Decorations Reference: City of Greenacres
(Company Name providing Reference)

Name/Title: Nichole King, Events Supervisor
(Name and Title of Person providing Reference)

Project/Service: Holiday Lights and Display (Community Park)
(Project/Service which references are being provided)

Project Manager: RFP No: 23-011 Holiday Lights and Display
(Project for which references are being provided)

Telephone: (561) 642-2196 Fax: (561) 642-2190

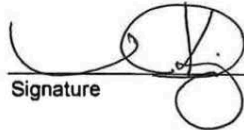
Describe the scope of work of the contract awarded by your company/agency to this contractor:

No.	Questions	Rating	Comments
1.	Rate the level of commitment of the firm to your project. Did they devote the time and management staff necessary for successful and timely work?	5	Did whatever was necessary the entire time for a trial first year
2.	Rate the quality of customer service and the competence and accessibility of the personnel.	5	Local expert, great customer service and high level of lighting competence
3.	Rate how well the firm listened and understood the specific needs of your organization.	5	Very well and would quickly clarify / resolve and misunderstanding of needs: Very responsive!
4.	Rate how well the firm met the major schedule milestones for the project.	5	Perfectly and very responsive
5.	Rate the firm's success at minimizing and controlling potential mistakes.	5	This was our first year, and it was a little bit of a learning curve with destruction done by squirrels, took preventative action: replaced over 40 strands of lights with no extra charge: Has a new game plan for next year:
6.	Rate the overall quality of the work.	5	Couldn't ask for a more professional or dedicated, customer focused vendor who listens and finds a solution:

VILLAGE OF PALM SPRINGS
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7.	Rate the technical competence of the firm and its personnel.	5	Once Spencer became familiar with the park's electrical pros/cons the City's Parks Supervisor gave him carte blanche - quickly trusted his capabilities/work:
8.	Rate the integrity and professionalism of the firm.	5	Exceptional integrity, honesty, great demeanor, quick work, amazing owner and employees:
9.	If you have a similar contract to undertake in the future, would the firm be considered? Yes – No	5	Wouldn't want to use another company - renewed a multi-year agreement after first year!

Rating: 1= Poor 2= Fair 3= Average 4= Good 5= Excellent

Signature 

Date 7/10/24



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT J: REFERENCE FORM

RFP Number & Title: 2024R-005 Holiday Tree Lighting and Decorations

Reference: City of West Palm Beach CRA
(Company Name providing Reference)

Name/Title: Ansley Lacy, Marketing Manager
(Name and Title of Person providing Reference)

Project/Service: Holiday Lighting for CRA
(Project/Service which references are being provided)

Project Manager: Ansley Lacy
(Project for which references are being provided)

Telephone: 561-822-1484 Fax: N/A

Describe the scope of work of the contract awarded by your company/agency to this contractor:

No.	Questions	Rating	Comments
1.	Rate the level of commitment of the firm to your project. Did they devote the time and management staff necessary for successful and timely work?	5	If we could rate a 10, we would!
2.	Rate the quality of customer service and the competence and accessibility of the personnel.	5	Spencer was always accessible - at any time!
3.	Rate how well the firm listened and understood the specific needs of your organization.	5	Went above & beyond to fit our needs
4.	Rate how well the firm met the major schedule milestones for the project.	5	Always on time
5.	Rate the firm's success at minimizing and controlling potential mistakes.	5	If there was a problem, Spencer was on top of it before we even got to it.
6.	Rate the overall quality of the work.	5	

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

7.	Rate the technical competence of the firm and its personnel.	5	
8.	Rate the integrity and professionalism of the firm.	5	
9.	If you have a similar contract to undertake in the future, would the firm be considered? Yes – No	5	

Rating: 1= Poor 2= Fair 3= Average 4= Good 5= Excellent


Signature

7/8/24
Date

Client's Name & Address: City of Greenacres – 501 Swain Blvd, Greenacres, Florida 33463

Contact Person: Michele Thompson

Telephone: 561-642-2180

Email: MThompson@greenacresfl.gov

Date Services Provided: 2023 holiday season (agreed for 2024 as well)

Services Provided: Tree lighting ceremony – 39ft tree, lights and decoration for Samuel J. Ferreri Community Park, monument enhancer, silhouettes, building lighting, 52 trees throughout park.



Client's Name & Address: West Palm Beach Downtown Development Authority – 107 South Olive Avenue, 2nd floor West Palm Beach, Florida 33401

Contact Person: Catherine Ast

Telephone: 561-833-8873

Email: CAst@downtownwpb.com

Date Services Provided: 2019 – 2023

Services Provided: Light and decorate the perimeter trees of The Banyan parking garage, trunks, branches and canopies.



Client's Name & Address: Town of Jupiter – 200 Military Trail, Jupiter, Florida 33458

Contact Person: Kristin George

Telephone: 561-741-2328

Email: KristinG@jupiter.fl.us

Date Services Provided: 2022 and 2023 holiday season

Services Provided: Tree lighting ceremony – 34ft tree, lights and decorations for 19 areas throughout the town. Including parks, light poles, holiday banners, town monuments, police station and community center.



Client's Name & Address: City of Riviera Beach

Contact Person: Deirdre Jacobs

Telephone: 561-812-6592

Email: DJacobs@rivierabeach.org

Date Services Provided: 2023 (contract is for the 2024 and 2025 season as well)

Services Provided: 3 christmas trees (24ft, 24ft and a 41ft) lights and decorations for several city buildings, fire stations, holiday banners and silhouettes for several areas throughout the city



Client's Name & Address: City of Aventura – 19200 W County Club Dr, Aventura, Florida 33180

Contact Person: Alan Levine

Telephone: 305-466-8931

Email: Levine@cityofaventura.com

Date Services Provided: 2023 (under contract for 2024)

Services Provided: holiday lighting for the government building, park, city monuments and the main Blvd in the city, interior decorations for the government building as well



West Palm Beach CRA





City of Pompano Beach



TAB 7: Addenda and Required Documents

Addendum No. 1

2. Section [Section #], [Section Name], Part X, Article X.XX:

Add:

None

Receipt acknowledged and conditions agreed to the 17th day of July, 2024.

Shellard Lighting Designs LLC

Bidder



By



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

SUBMISSION REQUIREMENTS

Project Name: Holiday Tree Lighting and Decorations

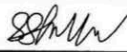
Proposal Number: RFP 2024R-005

The following items must be included in the proposal response:

1. Letter of Interest on your company's letterhead
2. Required documentation support requested in the Scope of Services
3. Copy of Submission Requirements form
4. Price Schedule Proposal Form
5. Attachments A -J
6. E-Verify Support (Memorandum of Understanding)
7. W-9 Form
8. Certificate of Liability Insurance
9. Supplemental Forms (i.e. license/certification)

PROPOSER (firm name): Shellard Lighting Designs LLC

PRINT NAME OF AUTHORIZED REPRESENTATIVE: Spencer Shellard

SIGNATURE OF AUTHORIZED REPRESENTATIVE: 

TITLE: MGR/Owner DATE: 6/30/2024



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

***PLEASE AFFIX SIGNATURE WHERE INDICATED
(FAILURE TO DO SO SHALL RESULT IN THE REJECTION OF YOUR RFP)**

By signature on this document, Proposer acknowledges and agrees that its offer includes and accepts all terms, conditions, and specifications of the Village's RFP solicitation as originally published, without exception, change or alteration of any kind, except as may have been published by the Village in official amendments prior to the submission time.

Shellard Lighting Designs LLC	6/30/2024
Firm Name	Date
	Spencer Shellard
*Signature	Print Name
	MGR/Owner
5613587869	Shellardlighting@gmail.com
Telephone	Email Address
Toll Free #	Fax #
Applicable License(s) #	Type
82-1274837	
Federal	Identification
	Number



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT A: PROPOSAL CERTIFICATION FORM
(Proposer must complete, sign, and return with the proposal)

I hereby certify that I am submitting my company's proposal and understand that by virtue of executing and returning with this proposal, this Proposal Certification Form, I certify that all information is correct, and I understand the contents and accept the conditions of the Request for Proposal and this Proposal Certification Form.

Acknowledgment of Addenda:

It is agreed that the proposer has received and understands all addenda issued by the Village.

The Proposer acknowledges receipt of supplement(s) as follows:

Addendum #	<u>1</u>	Date of Addendum	<u>7/16/2024</u>
Addendum #	_____	Date of Addendum	_____
Addendum #	_____	Date of Addendum	_____
Addendum #	_____	Date of Addendum	_____

PROPOSER (firm name): Shellard Lighting Designs LLC

FIRM ADDRESS: 2310 Pinewood Lane West Palm Beach Florida 33415

PRINT NAME OF AUTHORIZED REPRESENTATIVE: Spencer Shellard

EMAIL ADDRESS OF AUTHORIZED REPRESENTATIVE: Shellardlighting@gmail.com

PHONE NUMBER OF AUTHORIZED REPRESENTATIVE: 5613587869

SIGNATURE OF AUTHORIZED REPRESENTATIVE: 

TITLE: MGR/Owner DATE: 7/10/2024



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

**ATTACHMENT B: ADDENDUM TO PROPOSAL
CERTIFICATION FORM**

As part of its proposal, the Proposer shall provide to the Village a list of all instances within the immediate past four (4) years where there has been a final adjudicated determination in a legal or administrative proceeding in the State of Florida that the Proposer discriminated against its subcontractors, vendors, suppliers or commercial customers, and a description of the status or resolution of that complaint, including any remedial action taken.

The Proposer shall select the appropriate box:

☒ Proposer certifies that Proposer has had no final adjudications in Florida of discrimination against subcontractors, vendors, suppliers or commercial customers in the immediate past 4 years.

☐ Proposer has attached to this form a list of all instances within the immediate past four (4) years where there has been a final adjudicated determination in a legal or administrative proceeding in the State of Florida that the Proposer discriminated against its subcontractors, vendors, suppliers or commercial customers, and a description of the status or resolution of that complaint, including any remedial action taken.

PROPOSER (firm name): Shellard Lighting Designs LLC

PRINT NAME OF AUTHORIZED REPRESENTATIVE: Spencer Shellard

SIGNATURE OF AUTHORIZED REPRESENTATIVE: 

TITLE: MGR/Owner DATE: 6/30/2024



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

**ATTACHMENT C: CERTIFICATION OF BUSINESS
LOCATION FORM**

I. Proposer is a:

 Local Business: Local preference will be given to local businesses (entity or person) with a physical address within the village limits; second preference is within the county; and, third preference is within the state. Proof of the person's or entity's residency shall be a valid business tax receipt issued by the local government where the business is located. (Village of Palm Springs Code Section 58-14).

(Please indicate):

 Physical address within Village of Palm Springs limits

 X Physical address outside of Village of Palm Springs but within Palm Beach County

 X Physical address within the State of Florida

 Non-local: The Proposer does not have a physical address within the State of Florida

II. For Local Businesses: The attached copy of the Proposer's Business Tax Receipt verifies the Proposer's permanent place of business.

THIS CERTIFICATION is submitted by [Name of Individual:] Spencer Shellard
as [Title:] MGR/Owner of [Name of Firm:] Shellard Lighting Designs LLC

who hereby certifies that the information stated above is true and correct and that the Business Tax Receipt if attached hereto is a true and correct copy of the original. Further, it is hereby acknowledged that any misrepresentation by the Proposer on this Certification will be considered an unethical business practice and be grounds for sanctions against future Village business.


(Signature)

6/30/2024
(Date)

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

INSTRUCTIONS

Complete all lines as indicated. If the answer to any question is "None," so indicate. If an item does not apply, denote N/A (not applicable). If you cannot include the required information in the space provided, attach additional sheets as necessary.

**VILLAGE OF PALM SPRINGS
VENDOR CONFLICT OF INTEREST DISCLOSURE FORM**

Shellard Lighting Designs LLC

NAME OF VENDOR

Spencer Shellard

NAME OF PERSON COMPLETING FORM

MGR/Owner

RELATIONSHIP TO VENDOR

2310 Pinewood Lane

ADDRESS

West Palm Beach Florida 33415

CITY, STATE, ZIP

5613587869

TELEPHONE NUMBER

Shellardlighting@gmail.com

CONTACT EMAIL ADDRESS

CELL PHONE NUMBER

This form is provided in connection with:

☐ Invitation to Bid (specify) _____

☒ Request for Proposal / Qualifications (specify) RFP 2024R-005

☐ Other (specify) _____

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

1. List below the name(s), titles and address(es) of all **public officials and employees** of the Village having an **employment or contractual relationship with the Vendor** and describe the nature and extent of the relationship.

N/A

2. List below the name(s), titles and address(es) of all **relatives of public officials and employees** of the Village having an **employment or contractual relationship with the Vendor**, state to whom and how they are related, and describe the nature and extent of the employment or contractual relationship with the vendor.

N/A

3. List below the name(s), titles and address(es) of all **public officials and employees** of the Village having any direct or indirect **financial interest in the Vendor** (other than a relationship described in response to paragraph no. 1, above) and describe the nature and extent of the interest.

N/A

4. List below the name(s), titles, and address(es) of all **relatives of public officials and employees** of the Village having any direct or indirect **financial interest in the Vendor** (other than a relationship described in response to paragraph no. 2, above), state to whom and how they are related, and describe the nature and extent of the financial interest.

N/A

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

5. Describe any other circumstances of which you are aware may give rise to a conflict of interest with respect to the award of the contract referenced above to the Vendor.

N/A

Under penalties of perjury, I declare that I have read the foregoing VENDOR CONFLICT OF INTEREST DISCLOSURE FORM and that the facts stated in it are true and complete to the best of my knowledge after diligent inquiry. I understand that any untrue or incomplete statements herein shall be cause for disqualification from participation in the proposed transaction. I further understand that I am under a continuing duty to supplement this form to correct any errors or omissions and to provide newly discovered information.



Signature

6/30/2024

Date

Spencer Shellard

Printed Name

MGR/Owner

Title



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT E: PUBLIC ENTITY CRIMES STATEMENT

(To be signed in the presence of a notary public or other officer authorized to administer oaths.)

STATE OF Florida

COUNTY OF Palm Beach

Before me, the undersigned authority, personally appeared Spencer Shellard, who, being by me first duly sworn, made the following statement:

1. The business address of Shellard Lighting Designs LLC
(Firm name of Bidder/Proposer)
is 2310 Pinewood Lane West Palm Beach Florida 33415.
2. My relationship to Shellard Lighting Designs LLC
(Firm name of Bidder/Proposer)
is MGR/Owner
(relationship such as a sole proprietor, partner, president, or vice president)
3. I understand that a "public entity crime" as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or such an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
4. I understand that "convicted" or "conviction" is defined by the statute to mean a finding of guilt or a conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
5. I understand that "affiliate" is defined by the statute to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime; or (2) an entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime; or (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate; or (4) a person or corporation who knowingly entered into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

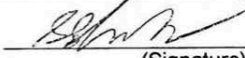
6. Neither the Bidder/Contractor nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Bidder/Contractor, nor any affiliate of the Bidder/Contractor, has been convicted of public entity crime subsequent to July 1, 1989.

(Draw a line through Paragraph 6 if Paragraph 7 below applies.)

7. There has been a conviction of a public entity crime by the Bidder/Contractor, or an officer, director, executive, partner, shareholder, employee, member or agent of the Bidder/Contractor who is active in the management of the Bidder/Contractor or an affiliate of the Bidder/Contractor. A determination has been made pursuant to Section 287.133(3) by order of the Division of Administrative Hearings that it is not in the public interest for the name of the convicted person or affiliate to appear on the convicted vendor list. The name of the convicted person or affiliate is _____.

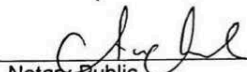
A copy of the order of the Division of Administrative Hearings is attached to this statement.

(Draw a line through Paragraph 7 if Paragraph 6 above applies.)


(Signature)

Sworn to and subscribed to before me in the State and County first mentioned above on the _____ day
of _____

July, 2024.


Notary Public

(Affix seal)

2/22/2026
My commission expires



HURGOLINE A. FLORVIL
Notary Public
State of Florida
Comm# HH232589
Expires 2/22/2026



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT F: SCRUTINIZED COMPANIES CERTIFICATION FORM

By execution below, I, Spencer Shellard, on behalf of
Shellard Lighting Designs LLC (hereinafter, the "Contractor"), hereby swear of affirm to the
following certifications:

The Following certifications apply to all procurements:

1. The Contractor has reviewed section 215.4725, Florida Statutes, section 215.473, Florida Statutes and section 287.135, Florida Statutes, and understands the same.
2. The Contractor is not on the Scrutinized Companies that Boycott Israel List nor is the Contractor engaged in a boycott of Israel.
3. If awarded a contract, the Contractor agrees to require these certifications for applicable subcontracts entered into for the performance of work/services under this procurement.
4. If awarded a contract, the Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the entire term of the contract, including any and all renewals.

If the contract awarded hereunder is for one million dollars or more, the following additional certifications ns apply:

1. The Contractor is not on the Scrutinized Companies with Activities in Sudan List.
2. The Contractor is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.
3. The Contractor is not engaged in business operations in Cuba or Syria.
4. If awarded a contract, the Contractor agrees to require these certifications for applicable subcontracts entered into for the performance of work/services under this procurement.
5. If awarded a contract, the Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the entire term of the contract, including any and all renewals.

CONTRACTOR:

By: Shellard Lighting Designs LLC

Name: Spencer Shellard

Title: MGR/Owner

Date: 7-3-2024

STATE OF FLORIDA

COUNTY OF St. Louis

The foregoing instrument was sworn to (or affirmed) and subscribed before this 3
day of July, 2024, by Spencer Shellard, who is the
owner of Shellard Lighting Designs, LLC, who is
personally known to me or who has produced driver's license as identification.

NOTARY PUBLIC

Printed Name of Notary Hurgoline A. Florvil

My Commission expires: 2/22/2026



HURGOLINE A. FLORVIL
Notary Public
State of Florida
Comm# HH232589
Expires 2/22/2026



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT G: NON-COLLUSION AFFIDAVIT

STATE OF Florida
COUNTY OF Palm Beach

Before me, the undersigned authority, personally appeared Spencer Shellard
after being by me first duly sworn, deposes and says of his/her personal knowledge that:

- a. He/ She is MGR/Owner of Shellard Lighting Designs LLC the
Proposer that has submitted a Qualification to perform work for the following:

RFP No. 2024R-005 Title: MGR/Owner

- b. He/ She is fully informed respecting the preparation and contents of the attached Request for Proposals, and of all pertinent circumstances respecting such Solicitation.
- c. Such Proposal is genuine and is not a collusive or sham Proposal.
- d. Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly, with any other Proposer, firm, or person to submit a collusive or sham Proposal in connection with the Solicitation and contract for which the attached Proposal has been submitted or to refrain from proposing in connection with such Solicitation and contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Proposer, firm, or person to fix the price or prices in the attached Proposal or any other Proposer, or to fix any
- e. overhead, profit, or cost element of the Proposal price or the Proposal price of any other Proposer, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the Village or any person interested in the proposed contract.

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

- f. The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

[Signature]
Signature

STATE OF FLORIDA
COUNTY OF ~~PALM BEACH~~ St. Lucie

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 3 day of July, 2024 by Spencer D. Shellcut

[Signature]
Signature of Notary

[NOTARY STAMP]

Commission Expires: 2/22/2026

 HURGOLINE A. FLORVIL
Notary Public
State of Florida
Comm# HH232589
Expires 12/22/2026

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

State of: Florida

County of: St. Lucie

Sworn to and subscribed before me this 3 day of July 2024 ☐ Personally
known or ☒ Produced Identification drivers license
(Specify Type of Identification)

[Signature]
Signature of Notary

[NOTARY STAMP]

Commission Expires: 2/22/2026



HURGOLINE A. FLORVIL
Notary Public
State of Florida
Comm# HH232589
Expires 2/22/2026



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT I: TRUTH-IN-NEGOTIATION CERTIFICATE

The undersigned warrants:

- i) that it has not employed or retained any company or person, other than bona fide employees working solely for the undersigned, to solicit or secure the Agreement and
- ii) that it has not paid or agreed to pay any person, company, corporation, individual, or firm other than its bona fide employees working solely for the undersigned or agreed to pay any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of the Agreement.

The undersigned certifies that the wage rates and other factual unit costs used to determine the compensation provided for in the Agreement are accurate, complete, and current as of the date of the Agreement.

This document must be executed by a Corporate Officer:

Spencer Shellard	_____
	Name
MGR/Owner	_____
	Title
6/30/2024	_____
	Date
	_____
	Signature



Company ID Number: 2209804



Approved by:

Employer shellard lighting designs llc	
Name (Please Type or Print) spencer D shellard	Title
Signature Electronically Signed	Date 07/16/2023
Department of Homeland Security – Verification Division	
Name (Please Type or Print) USCIS Verification Division	Title
Signature Electronically Signed	Date 07/16/2023

**Request for Taxpayer
Identification Number and Certification**

► Go to www.irs.gov/FormW9 for instructions and the latest information.

**Give Form to the
requester. Do not
send to the IRS.**

Print or type.
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. Spencer Shellard	
2 Business name/disregarded entity name, if different from above Shellard Lighting Designs LLC	
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. ☒ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate ☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. ☐ Other (see instructions) ►	
4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ (Applies to accounts maintained outside the U.S.)	
5 Address (number, street, and apt. or suite no.) See instructions. 2310 Pinewood Lane 6 City, state, and ZIP code West Palm Beach, Florida, 33415	7 List account number(s) here (optional)
Requester's name and address (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
				-				-	
or									
Employer identification number									
8	2	-	1	2	7	4	8	3	7

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

**Sign
Here**

Signature of U.S. person ► *Spencer Shellard*

Date ► *5/23/2023*

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
 - Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
 - Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
 - Form 1099-S (proceeds from real estate transactions)
 - Form 1099-K (merchant card and third party network transactions)
 - Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
 - Form 1099-C (canceled debt)
 - Form 1099-A (acquisition or abandonment of secured property)
- Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.



ANNE M. GANNON
CONSTITUTIONAL TAX COLLECTOR
Serving Palm Beach County
Serving you.

P.O. Box 3353, West Palm Beach, FL 33402-3353
www.pbctax.com Tel: (561) 355-2264

****LOCATED AT****
2310 PINWOOD LN
WEST PALM BEACH, FL 33415

TYPE OF BUSINESS	OWNER	CERTIFICATION #	RECEIPT #/DATE PAID	AMT PAID	BILL #
LIGHTING & SOUND DESIGN - OPERATOR	SHELLARD LIGHTING DESIGNS LLC		B23.684424 08/07/2023	\$33.00	B40157506

This document is valid only when receipted by the Tax Collector's Office.



5
7-1143

SHELLARD LIGHTING DESIGNS LLC
SHELLARD LIGHTING DESIGNS
2310 PINWOOD LN
WEST PALM BEACH FL 33415-7330



STATE OF FLORIDA
PALM BEACH COUNTY
2023 / 2024 LOCAL BUSINESS TAX RECEIPT
LBTR Number: 2018110291
EXPIRES: 09/30/2024

This receipt grants the privilege of engaging in or managing any
business profession or occupation within its jurisdiction and
MUST be conspicuously displayed at the place of business and
in such a manner as to be open to the view of the public.



JIMMY PATRONIS
CHIEF FINANCIAL OFFICER

STATE OF FLORIDA
DEPARTMENT OF FINANCIAL SERVICES
DIVISION OF WORKERS' COMPENSATION

**** CERTIFICATE OF ELECTION TO BE EXEMPT FROM FLORIDA WORKERS' COMPENSATION LAW ****

NON-CONSTRUCTION INDUSTRY EXEMPTION

This certifies that the individual listed below has elected to be exempt from Florida Workers' Compensation law.

EFFECTIVE DATE: 12/15/2023

EXPIRATION DATE: 12/14/2025

PERSON: SPENCER D SHELLARD

EMAIL: SHELLARDLIGHTING@GMAIL.COM

FEIN: 821274837

BUSINESS NAME AND ADDRESS:

SHELLARD LIGHTING DESIGNS LLC

2310 PINEWOOD LANE

WEST PALM BEACH, FL 33415

This certificate of election to be exempt is NOT a license issued by the Department of Business and Professional Regulation. To determine if the certificate holder is required to have a license to perform work or to verify the license of the certificate holder, go to www.myfloridalicense.com.

IMPORTANT: Pursuant to subsection 440.05(13), F.S., an officer of a corporation who elects exemption from this chapter by filing a certificate of election under this section may not recover benefits or compensation under this chapter. Pursuant to subsection 440.05(11), F.S., Certificates of election to be exempt issued under subsection (3) apply only to the corporate officer named on the notice of election to be exempt. Pursuant to subsection 440.05(12), F.S., notices of election to be exempt and certificates of election to be exempt shall be subject to revocation if, at any time after the filing of the notice or the issuance of the certificate, the person named on the notice or certificate no longer meets the requirements of this section for issuance of a certificate. The department shall revoke a certificate at any time for failure of the person named on the certificate to meet the requirements of this section.

DFS-F2-DWC-252 CERTIFICATE OF ELECTION TO BE EXEMPT
RULE 69L-6.012, F.A.C. REVISED 01/2023

E01840437 QUESTIONS? (850) 413-1609



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
02/15/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Wiglesworth - Rindom Insurance Agency 217 SW AKRON AVE, STUART, FL 34994	CONTACT NAME: Progressive Commercial Lines Customer and Agent Servicing PHONE (A/C, No, Ext): 1-800-444-4487 FAX (A/C, No): E-MAIL ADDRESS: progressivecommercial@email.progressive.com														
INSURED Shellard Lighting Designs, LLC 2314 Pinewood Ln West Palm Beach, FL 33415	<table><tr><th>INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr><tr><td>INSURER A : Progressive Express Insurance Company</td><td>10193</td></tr><tr><td>INSURER B :</td><td></td></tr><tr><td>INSURER C :</td><td></td></tr><tr><td>INSURER D :</td><td></td></tr><tr><td>INSURER E :</td><td></td></tr><tr><td>INSURER F :</td><td></td></tr></table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Progressive Express Insurance Company	10193	INSURER B :		INSURER C :		INSURER D :		INSURER E :		INSURER F :	
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INSURER D :															
INSURER E :															
INSURER F :															

COVERAGES **CERTIFICATE NUMBER:** 527253974707308705D022823T182548 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMPIOP AGG \$
A	AUTOMOBILE LIABILITY ANY AUTO ☐ OWNED AUTOS ONLY ☒ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY	N	N	954456708	12/27/2023	12/27/2024	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☐	N/A				PER-STATUTE ☐ OTH-ER ☐ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Shellard Lighting Designs, LLC 2314 Pinewood Ln West Palm Beach, FL 33415	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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ACORD 25 (2016/03)

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
07/15/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Pettineo Insurance Agency, Inc 2428 E Commercial Blvd Fort Lauderdale FL 33308		CONTACT NAME: Customer Service PHONE (A/C, No, Ext): 954-493-9424 FAX (A/C, No): 9544939424 E-MAIL ADDRESS: coi@pettineo.com	
INSURED Shellard Lighting Designs, LLC. 2310 Pinewood Lane West Palm Beach FL 33415		INSURER(S) AFFORDING COVERAGE INSURER A: Heritage Property & Casualty Insurance Company NAIC # 14407 INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PRO-JECT ☐ LOC OTHER:	Y	Y	HCR011676	10/09/2023	10/09/2024
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS ONLY					
	UMBRELLA LIAB ☐ EXCESS LIAB DED ☐ RETENTION \$					
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☐	N/A			
						EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$ COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ EACH OCCURRENCE \$ AGGREGATE \$ \$ PER STATUTE ☐ OTH-ER ☐ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Certificate Holder also listed as additional insured.

CERTIFICATE HOLDER**CANCELLATION**

Village of Palm Springs 226 Cypress Ln Palm Springs FL 33461	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Louise Reid</i>
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**REQUEST FOR PROPOSALS
FOR
HOLIDAY TREE LIGHTING AND DECORATIONS
RFP 2024R-005
RFP DEADLINE: JULY 19, 2024, AT 4:00 PM, LOCAL TIME**



**VILLAGE OF PALM SPRINGS
PARKS AND RECREATION DEPARTMENT
226 CYPRESS LANE
PALM SPRINGS, FL 33461
(561) 584-8200
procurement@vpsfl.org**

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**VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS**

The Village of Palm Springs, Florida, seeks proposals from qualified and responsible contractors to provide holiday lighting on trees and decorations at various locations throughout the Village.

The Village utilizes electronic online services to notify and distribute its solicitation documents. The full set of RFP documents will be available beginning June 20, 2024, from www.demandstar.com or from the Village website at www.vpsfl.org. Those interested in providing these services are instructed to submit a response electronically via DemandStar at www.demandstar.com.

The Proposer is responsible for ensuring that all pages are included in the submission. All proposers are advised to closely examine the request for proposal documents. Sealed Proposals must be received by the Village Clerk before the deadline on **Friday, July 19, 2024, at 4:00 PM local time**. Late Proposals will not be accepted. Any questions regarding the completeness or substance of the Request for Proposals documents or the scope of services must be submitted in writing via email to the Procurement Official at procurement@vpsfl.org.

A virtual pre-bid conference will be held for this solicitation at 2:00 PM local time on July 1, 2024. Attendance at the pre-bid conference is non-mandatory.

Pre-bid Conference – July 1, 2024, at 2:00 PM local time

Participants can use their telephone or computer mic & speakers (VoIP)

Registration: **Join on your computer, mobile app or room device** Register:
<https://events.gcc.teams.microsoft.com/event/31d1aa46-1c93-42d2-8cab-7709b8f3921e@20801dc8-57d4-4c4b-b981-92be4d50e21c>

**Meeting ID: 262 986 315 917
Passcode: r3j3NM**

Deadline to Submit Questions: Questions must be submitted in writing to the Procurement Specialist at procurement@vpsfl.org no later than the deadline on **Monday, July 8, 2024, at 5:00 PM local time**

After receiving all proposals, a public meeting will be scheduled and announced for the Village's Selection Committee to review and discuss the respondents' rankings. The meeting will be held at Village Hall at 226 Cypress Lane, Palm Springs, FL 33461.

The Village reserves the right, in its sole discretion, to accept or reject any or all Proposals, in whole or in part, to waive all nonmaterial irregularities and/or technicalities and to award the contract on such terms it deems will best serve the interests of the Village.

Kimberly Wynn, CMC, Village Clerk
Village of Palm Springs
Publish: DemandStar, Lake Worth Herald, and Village of Palm Springs website
June 20, 2024

+ + END OF ADVERTISEMENT FOR BIDS + +

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

GENERAL TERMS AND CONDITIONS

1. CONE OF SILENCE

Pursuant to Section 2-355 of Palm Beach County Ordinance No. 2011-039 and the purchasing policies of the Village of Palm Springs, all Solicitations, once advertised and until the appropriate authority has approved an award recommendation, are under the "Cone of Silence". This limits and requires documentation of communications between potential Proposers and/or Proposers on Village Solicitations, the Village's professional staff, and the Village Council members.

2. ADDENDUM

The Village may issue an addendum in response to any inquiry received prior to the close of the Solicitation period, which changes, adds, or clarifies the terms, provisions, or requirements of the Solicitation. The Proposer should not rely on any representation, statement, or explanation, whether written or verbal, other than those made in the Solicitation document or in the addenda issued. Where there appears to be a conflict between the Solicitation and any addenda, the last addendum issued shall prevail. It is the vendor's responsibility to ensure receipt of all addenda and any accompanying documentation. The vendor is required to submit a signed "Acknowledgment of Addenda" form with its Proposal when any addenda has been issued.

3. LEGAL REQUIREMENTS

This Solicitation is subject to all legal requirements contained in the applicable Village Ordinances and Resolutions, as well as all applicable Village, State, and Federal Statutes. Where conflict exists between this Proposal Solicitation and these legal requirements, the authority shall prevail in the following order: Federal, State, and local.

4. CHANGE OF PROPOSAL

Prior to the scheduled Proposal opening, a Proposer may change its Proposal by submitting a new Proposal (as indicated on the cover page) with a letter on the firm's letterhead, signed by an authorized agent stating that the new submittal replaces the original submittal. The new submittal shall contain the letter and all information required to submit the original Proposal. No changes to a Proposal will be accepted after the Proposal has been opened.

5. WITHDRAWAL OF PROPOSAL

A Proposal shall be irrevocable unless the Proposal is withdrawn as provided herein. Only a written letter received by the Village Clerk prior to the Proposal opening date may withdraw a Proposal. The withdrawal letter must be on company letterhead and signed by an authorized agent of the Proposer.

6. CONFLICTS WITHIN THE PROPOSAL SOLICITATION

In the event of a conflict between the General Terms and Conditions, Special Conditions, the Technical Specifications, the Proposal Certification Form, or any addendum issued, the order of precedence shall be the last addendum issued, the Proposal Certification Form, the Technical Specifications, the Special Conditions, and then the General Terms and Conditions.

7. PAYMENT TERMS

It is the policy of the Village of Palm Springs that payment for all purchases by Village departments shall be made in a timely manner. The Village will pay the awarded Proposer upon receipt and acceptance of the goods or services by a duly authorized representative of the Village. In accordance with Section 218.74, Florida Statutes, the time at which payment shall be

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

due from the Village shall be forty-five (45) days from receipt of a proper invoice for goods or services other than construction services. The payment due date for construction services is governed by Section 218.735, Florida Statutes. Proceedings to resolve disputes regarding payment of obligations shall be concluded by the final written decision of the Village Manager or designee, not later than sixty (60) days after the date on which the Village received the proper invoice.

8. DISCOUNTS (PROMPT PAYMENTS)

The Proposer may offer cash discounts for prompt payments; however, such discounts will not be considered when determining the lowest price during Proposal evaluation. Proposers are requested to provide prompt payment terms in the space provided on the Proposal submittal signature page of the Solicitation.

9. PREPARATION OF PROPOSALS

- (a) The Proposal forms define the requirements for items to be purchased, which must be completed and submitted with the proposal. Use of any other forms will result in the rejection of the Proposer's offer. The Proposal submittal forms must be legible. Proposers shall use typewriter, computer, or ink. All changes must be crossed out and initialed in ink. Failure to comply with these requirements may cause the Proposal to be rejected.
- (b) An authorized agent of the Proposer's firm must sign the Proposal submittal form. Failure to sign the Signature Page of the Proposal shall render the Proposal non-responsive.
- (c) The Proposer may be considered non-responsive if Proposals are conditioned upon modifications, changes, or revisions to the terms and conditions of this Solicitation.
- (d) The Proposer may submit alternate Proposal(s) for the same Solicitation provided that such offer is allowable under the terms and conditions. The alternate Proposal must meet or exceed the minimum requirements and be submitted as a separate Proposal submittal marked "Alternate Proposal."
- (e) When there is a discrepancy between the unit prices and any extended prices, the unit prices will prevail.
- (f) Late Proposals will not be accepted and will be returned to the sender unopened. It is the Proposer's responsibility to ensure timely delivery by the due date and time and at the place stated in this Solicitation. No exceptions will be made due to weather, carrier, traffic, illness, or other issues.

10. CANCELLATION OF PROPOSAL SOLICITATION

The Village of Palm Springs reserves the right to cancel, in whole or in part, any Invitation to Proposal when it is in the best interest of the Village.

11. AWARD OF CONTRACT

- (a) The contract may be awarded to the responsive and responsible Proposer meeting all requirements as set forth in the Solicitation. The Village reserves the right to reject any and all Proposals, to waive irregularities or technicalities, and to re-advertise for all or any part of this Proposal Solicitation as deemed in its best interest. The Village shall be the sole judge of its best interest.

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

- (b) The Village reserves the right to reject any and all Proposals if it is determined that prices are excessive, best offers are determined to be unreasonable, or it is otherwise determined to be in the Village's best interest to do so.
- (c) The Village reserves the right to negotiate prices with the responsive and responsible low Proposer, provided that the scope of work of this Solicitation remains the same.
- (d) The Proposer's performance as a prime contractor or subcontractor on previous Village contracts shall be taken into account in evaluating the Proposal received for this Proposal Solicitation.
- (e) The Proposal Solicitation, any addenda and/or properly executed modifications, the Proposer's response, the signed Agreement, the purchase order, and any change order(s) shall constitute the contract.
- (f) Award of this Proposal may be predicated on compliance with, and submittal of all required documents as stipulated in the Proposal Solicitation.
- (g) The Village reserves the right to request and evaluate additional information from any Proposer after the submission deadline as the Village deems necessary.
- (h) Following award of the contract, the contract documents shall consist of this RFP, together with all attachments and addenda thereto, and the successful Proposer's response, including all attachments thereto.

12. CONTRACT EXTENSION

The Village reserves the right to extend any agreement for a maximum period not to exceed ninety (90) calendar days in order to provide Village departments with continual service and supplies while a new agreement is being solicited, evaluated, and/or awarded.

13. WARRANTY

All warranties express and implied shall be made available to the Village for goods and services covered by this Proposal Solicitation. All goods furnished shall be fully guaranteed by the awarded Proposer against factory defects and workmanship. At no expense to the Village, the awarded Proposer shall correct any and all apparent and latent defects that may occur within the manufacturer's standard warranty.

14. NON-EXCLUSIVITY

It is the intent of the Village to enter into an agreement with the awarded Proposer that will satisfy its needs as described herein. However, the Village reserves the right as deemed in its best interest to perform, or cause to be performed, the work and services, or any portion thereof, herein described in any manner it sees fit, including but not limited to, award of other contracts, use of any contractor, or perform the work with its own employees.

15. CONTINUATION OF WORK

Any work that commences prior to and will extend beyond the expiration date of the current contract period shall, unless terminated by mutual written agreement between the Village and the successful Proposer, continue until completion at the same prices, terms, and conditions.

16. PROPOSAL PROTEST

Shall be in accordance with Section 58-6 of the Village Code.

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

17. LICENSES, PERMITS AND FEES

The awarded Proposer(s) shall hold all licenses and/or certifications, obtain and pay for all permits and/or inspections, and comply with all laws, ordinances, regulations, and building code requirements applicable to the work required herein. Damages, penalties, and/or fines imposed on the Village or an awarded Proposer for failure to obtain and maintain required licenses, certifications, permits, and/or inspections shall be borne by the awarded Proposer.

18. SUBCONTRACTING

Unless otherwise specified in this Proposal Solicitation, the successful Proposer shall not subcontract any portion of the work without the prior written consent of the Village. The Special Conditions may further limit the ability to subcontract. Subcontracting without the prior consent of the Village may result in termination of the contract for default.

19. ASSIGNMENTS

The awarded Proposer shall not assign, transfer, hypothecate, or otherwise dispose of this contract, including any rights, title, or interest therein, or its power to execute such contract to any person, company, or corporation without the prior written consent of the Village. Assignment without the prior consent of the Village may result in termination of the contract for default.

20. RESPONSIBILITIES AS EMPLOYER

The employee(s) of the awarded Proposer shall be considered to be at all times its employee(s), and not an employee(s) or agent(s) of the Village or any of its departments. The awarded Proposer shall provide physically competent employee(s) capable of performing the work as required. The Village may require the awarded Proposer to remove any unacceptable employee. All employees of the awarded Proposer should wear proper identification.

The awarded Proposer's responsible for ensuring that all its employees and subcontractors comply with the employment regulations required by the US Department of Homeland Security. The Village shall have no responsibility to check or verify the legal immigration status of any employee of the awarded Proposer.

21. INDEMNIFICATION

The awarded Proposer shall indemnify and hold harmless the Village and its officers, employees, agents, and instrumentalities from any liability, losses or damages, including attorney's fees and costs of defense, which the Village or its officers, employees, agents, or instrumentalities may incur as a result of claims, demands, suits, causes of actions, or proceedings of any kind or nature arising out of, relating to, or resulting from the performance of the agreement by the awarded Proposer or its employees, agents, servants, partners, principals, or subcontractors. The awarded Proposer shall pay all claims and losses in connection therewith, and shall investigate and defend all claims, suits, or actions of any kind or nature in the name of the Village, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may be incurred thereon. The awarded Proposer expressly understands and agrees that any insurance protection required by the contract agreement or otherwise provided by the awarded Proposer shall in no way limit the responsibility to indemnify, keep and save harmless, and defend the Village or its officers, employees, agents, and instrumentalities as herein provided.

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

22. COLLUSION

A Proposer recommended for award as the result of a competitive Request for Proposal for any Village purchases of supplies, materials, and services (including professional services, other than professional architectural, engineering, and other services subject to Sec. 287.055 Florida Stats.), purchase, lease, permit, concession, or management agreement shall, within five (5) business days of the filing of such recommendation, submit an affidavit under the penalty of perjury, on a form provided by the Village, stating either that the Proposer is not related to any of the other parties submitting in the competitive Request for Proposal or identifying all related parties, as defined in this Section, which RFP in the Request for Proposal; and attesting that the Proposer's RFP is genuine and not a sham or collusive or made in the interest or on behalf of any person not therein named, and that the Proposer has not, directly or indirectly, induced or solicited any other Proposer to put in a sham RFP, or any other person, firm, or corporation to refrain from proposing, and that the Proposer has not in any manner sought by collusion to secure to the Proposer an advantage over any other Proposer. In the event a recommended Proposer identifies related parties in the competitive Request for Proposal, its RFP shall be presumed to be collusive, and the recommended Proposer shall be ineligible for award unless that presumption is rebutted to the satisfaction of the Village. Any person or entity that fails to submit the required affidavit shall be ineligible for contract award.

23. MODIFICATION OF CONTRACT

The contract may be modified by mutual consent, in writing, through the issuance of a modification to the contract, a supplemental agreement, purchase order, or change order, as appropriate. In accordance with Section 58-18 of the Purchasing code, modification of contract or change order shall be subject to prior approval by the Village

24. FRAUD AND MISREPRESENTATION

Any individual, corporation, or other entity that attempts to meet its contractual obligations with the Village through fraud, misrepresentation, or material misstatement, may be debarred as set forth by the Village Code. The Village, as a further sanction, may terminate or cancel any other contracts with such individual, corporation, or entity. Such individual or entity shall be responsible for all direct or indirect costs associated with termination or cancellation, including attorney's fees.

25. ACCESS AND AUDIT OF RECORDS

The Village reserves the right to require the awarded Proposer to submit to an audit by an auditor of the Village's choosing at the awarded Proposer's expense. The awarded Proposer shall provide access to all of its records, which relate directly or indirectly to this Agreement, at its place of business during regular business hours. The awarded Proposer shall retain all records pertaining to this Agreement, and upon request, make them available to the Village for three (3) years following expiration of the Agreement. The awarded Proposer agrees to provide such assistance as may be necessary to facilitate the review or audit by the Village to ensure compliance with applicable accounting and financial standards.

26. OFFICE OF THE INSPECTOR GENERAL

Palm Beach County has established the Office of the Inspector General, which is authorized and empowered to review past, present, and proposed County programs, contracts, transactions, accounts, and records. The Inspector General (IG) has the power to subpoena witnesses, administer oaths, require the production of records, and monitor existing projects and programs. The Inspector General may, on a random basis, perform audits on all Village contracts.

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

27. PRE-AWARD INSPECTION

The Village may conduct a pre-award inspection of the Proposer's site or hold a pre-award qualification hearing to determine if the Proposer is capable of performing the requirements of this Proposal Solicitation.

28. PROPRIETARY AND/OR CONFIDENTIAL INFORMATION

Proposers are hereby notified that all information submitted as part of, or in support of Proposal submittals will be available for public inspection after the opening of Proposals in compliance with Chapter 119 of the Florida Statutes, popularly known as the "Public Records Law." The Proposer shall not submit any information in response to this Solicitation which the Proposer considers to be a trade secret, proprietary, or confidential. The submission of any information to the Village in connection with this Solicitation shall be deemed conclusively to be a waiver of any trade secret or other protection which would otherwise be available to the Proposer. In the event that the Proposer submits information to the Village in violation of this restriction, either inadvertently or intentionally, and clearly identifies that information in the Proposal as protected or confidential, the Village may, in its sole discretion, either (a) communicate with the Proposer in writing in an effort to obtain the Proposer's withdrawal of the confidentiality restriction, or (b) endeavor to redact and return that information to the Proposer as quickly as possible, and if appropriate, evaluate the balance of the Proposal. The redaction or return of information pursuant to this clause may render a Proposal non-responsive.

29. PUBLIC RECORDS

Florida law provides that municipal records shall at all times be available to the public for inspection. Chapter 119, Florida Statutes, the Public Records Law, requires that all material submitted in connection with a Proposal response shall be deemed to be a public record subject to public inspection upon award, recommendation for award, or thirty (30) days after Proposal opening, whichever occurs first. Certain exemptions to public disclosure are statutorily provided for in Section 119.07, Florida Statutes. If the Proposer believes any of the information contained in his/her/its Proposal is considered confidential and/or proprietary inclusive of trade secrets as defined in Section 812.081, Florida Statutes, and is exempt from the Public Records Law, then the Proposer, must in its response, specifically identify the material which is deemed to be exempt and state the legal authority for the exemption. All materials that qualify for exemption from Chapter 119, Florida Statutes or other applicable law must be submitted in a separate envelope, clearly identified as "EXEMPT FROM PUBLIC DISCLOSURE" with the firm's name and the Proposal number clearly marked on the outside. The Village will not accept Proposals when the entire Proposal is labeled as exempt from disclosure. The Village's determination of whether an exemption applies shall be final, and the Proposer agrees to defend, indemnify, and hold harmless the Village and the Village's officers, employees, and agents, against any loss or damages incurred by any person or entity as a result of the Village's treatment of records as public records.

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31. ADDITIONAL FEES AND SURCHARGES

Unless provided for in the contract/agreement, the Village will not make any additional payments such as fuel surcharges, demurrage fees, or delay-in-delivery charges.

32. COMPLIANCE WITH FEDERAL STANDARDS

All items to be purchased under this contract shall be in accordance with all governmental standards, to include, but not be limited to, those issued by the Occupational Safety and Health Administration (OSHA), the National Institute of Occupational Safety Hazards (NIOSH), and the National Fire Protection Association (NFPA). Additional federal standards and regulations may apply depending on the nature of the contract and the funding source. These will be specified within the Solicitation.

34. SEVERABILITY

The Village's obligation pursuant to any contract or agreement entered into in accordance with this Solicitation is specifically contingent upon the lawful appropriation of funds. Failure to lawfully appropriate funds for any contract or agreement awarded shall result in automatic termination of the contract or agreement. A non-appropriation event shall not constitute a default or breach of said contract or agreement by the Village.

35. NO THIRD-PARTY BENEFICIARY

No provision of this Contract is intended to, or shall be construed to, create any third-party beneficiary or to provide any rights to any person or entity not a party to this Contract, including but not limited to any citizen or employees of the Village and/or successful vendor.

36. EQUAL OPPORTUNITY AND ANTI-DISCRIMINATION

The Village of Palm Springs complies with all laws prohibiting discrimination on the basis of age, race, gender, religion, creed, political affiliation, sexual orientation, physical or mental disability, color or national origin, and therefore is committed to assuring equal opportunity in the award of contracts and encourages small, local, minority, and female- owned businesses to participate.

During the performance of this contract, the awarded Proposer agrees it will not discriminate or permit discrimination in its hiring practices or in its performance of the contract. The awarded Proposer shall strictly adhere to the equal employment opportunity requirements and any applicable requirements established by the State of Florida, Palm Beach County, and the federal government.

The awarded Proposer further acknowledges and agrees to provide the Village with all information and documentation that may be requested by the Village from time to time regarding the Solicitation, selection, treatment and payment of subcontractors, suppliers, and vendors in connection with this Contract.

37. AVAILABILITY OF CONTRACT TO OTHER VILLAGE DEPARTMENTS

It is agreed and understood that any Village department or agency may access this contract and purchase the goods or services awarded herein. Each Village department will issue a separate purchase order to the awarded Proposer for the department's specific purchases.

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38. CRIMINAL HISTORY BACKGROUND CHECKS

Prior to hiring a contract employee or contracting with a Proposer, the Village may conduct a comprehensive criminal background check by accessing any Federal, State, or local law enforcement database available. The contract employee or Proposer will be required to sign an authorization for the Village to access criminal background information. The costs for the background checks shall be borne by the Village.

39. LABOR, MATERIALS, AND EQUIPMENT

Unless specified elsewhere in the Solicitation or resultant contract, all labor, materials, and equipment required for the performance of the requirements of the Contract shall be supplied by the awarded Proposer.

40. MINIMUM WAGE REQUIREMENTS

The awarded Proposer shall comply with all minimum wage and living wage requirements, such as Living Wage requirements, minimum wages based on Federal Law, minimum wages based on the Davis-Bacon Act, the Florida Minimum Wage Act, §448.110, Florida Statutes, and the provisions of any other wages laws, as may be applicable to this Contract.

41. PURCHASE OF OTHER ITEMS

The Village reserves the right to purchase other related goods or services, not listed in the Solicitation, during the contract term. When such requirements are identified, the Village may request price quote(s) from the awarded Proposer(s) on the contract. The Village, at its sole discretion, will determine if the prices offered are reasonable, and may choose to purchase the goods or services from the awarded Proposer, another contract vendor, or a non-contract vendor. The awarded Proposer(s) shall keep and maintain public records and fully comply with the requirements set forth at Section 119.0701, Florida Statutes, as applicable; failure to do so shall constitute a material breach of any and all agreements awarded pursuant to this Solicitation.

42. CONFLICTS OF INTEREST

All Proposers must disclose with their Proposal the name of any officer, director, or agent who is also an employee of the Village of Palm Springs. Further, all Proposers must disclose the name of any Village employee who has any interest, financial or otherwise, direct, or indirect, of five percent (5%) or more in the Proposers' firm or any of its branches. Failure to disclose any such affiliation will result in disqualification of the Proposer from this Invitation to Proposal and may be grounds for further disqualification from participating in any future Proposals with the Village.

43. OTHER GOVERNMENTAL AGENCIES

If a Proposer is awarded a contract as a result of this RFP, the Proposer shall allow other governmental agencies to access this contract and purchase the goods and services under the terms and conditions at the prices awarded, as applicable.

44. COMPLETION OF WORK AND DELIVERY

All work shall be performed, and all deliveries made in accordance with good commercial practice. The work schedule and completion dates shall be adhered to by the awarded Proposer(s), except in such cases where the completion date will be delayed due to acts of nature, force majeure, strikes, or other causes beyond the control of the awarded Proposer. In these cases, the awarded Proposer shall notify the Village of the delays in advance of the original completion so that a revised delivery schedule can be appropriately considered by the Village.

45. FAILURE TO DELIVER OR COMPLETE WORK

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Should the awarded Proposer(s) fail to deliver or complete the work within the time stated in the contract, it is hereby agreed and understood that the Village reserves the authority to cancel the contract with the awarded Proposer and secure the services of another vendor to purchase the items or complete the work. If the Village exercises this authority, the Village shall be responsible for reimbursing the awarded Proposer for work that was completed, and items delivered and accepted by the Village in accordance with the contract specifications. The Village may, at its option, demand payment from the awarded Proposer, through an invoice or credit memo, for any additional costs over and beyond the original contract price which were incurred by the Village as a result of having to secure the services of another vendor.

46. CORRECTING DEFECTS

The awarded Proposer shall be responsible for promptly correcting any deficiency, at no cost to the Village, within three (3) calendar days after the Village notifies the awarded Proposer of such deficiency in writing. If the awarded Proposer fails to correct the defect the Village may (a) place the awarded Proposer in default of its contract; and/or (b) procure the products or services from another source and charge the awarded Proposer for any additional costs that are incurred by the Village for this work or items, either through a credit memorandum or through invoicing.

47. ACCIDENT PREVENTION AND BARRICADES

Precautions shall be exercised at all times for the protection of persons and property. All awarded Proposers performing services or delivering goods under this contract shall conform to all relevant OSHA, State, and County regulations during the course of such effort. Any fines levied by the above-mentioned authorities for failure to comply with these requirements shall be borne solely by the awarded Proposer. Barricades shall be provided by the awarded Proposer when work is performed in areas traversed by persons, or when deemed necessary by the Village.

48. OMISSIONS IN SPECIFICATIONS

The specifications and/or statement of work contained within this Solicitation describe the various functions and classes of work required as necessary for the completion of the project. Any omissions of inherent technical functions or classes of work within the specifications and/or statement of work shall not relieve the Proposer from furnishing, installing, or performing such work where required to the satisfactory completion of the project.

49. MATERIALS SHALL BE NEW AND WARRANTED AGAINST DEFECTS

The awarded Proposer hereby acknowledges and agrees that all materials, except where recycled content is specifically requested, supplied by the awarded Proposer in conjunction with this Solicitation and resultant contract shall be new, warranted for their merchantability, and fit for a particular purpose. In the event any of the materials supplied to the Village by the awarded Proposer are found to be defective or do not conform to specifications, (1) the materials may be returned to the awarded Proposer at the Proposer's expense and the contract cancelled; or (2) the Village may require the awarded Proposer to replace the materials at the Proposer's expense.

50. TAXES

The Village is exempt from payment of Florida State Sales and Use Tax. Proposer shall not be exempted from paying sales tax to its suppliers for materials used to fill any contractual obligations with the Village, nor is Proposer authorized to use the Village's Tax Exemption Number in securing such materials. Proposer shall be responsible for payment of its own and its share of its employees' payroll, payroll taxes, and benefits with respect to the contract.

51. PROPOSER'S COSTS

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The Village shall not be liable for any costs incurred by Proposers in responding to this Invitation to Proposal.

52. SUBSTITUTION OF PERSONNEL

It is the intention of the Village that the awarded Proposer's personnel proposed for the contract should be available for the initial contract term. In the event the awarded Proposer wishes to substitute personnel, the awarded Proposer shall propose personnel of equal or higher qualifications, and all replacement personnel are subject to the Village's approval. In the event the substitute personnel are not satisfactory to the Village, and the matter cannot be resolved to the satisfaction of the Village, the Village reserves the right to cancel the contract for cause.

53. FISCAL FUNDING OUT

The Village's obligation pursuant to any contract or agreement entered into in accordance with this Solicitation is specifically contingent upon the lawful appropriation of funds. Failure to lawfully appropriate funds for any contract or agreement awarded shall result in automatic termination of the contract or agreement.

54. PURCHASE ORDER

The Village will not accept any goods delivered or services performed unless a duly authorized purchase order has been issued for said goods and/or services. The purchase order number must appear on all invoices, packing slips and all correspondence concerning the order.

55. DELIVERIES

Deliveries are to be made Monday through Friday, excluding Village holidays, unless otherwise stipulated.

56. SALES PROMOTIONS / PRICE REDUCTIONS

Should sales promotions occur during the term of the order/contract that lower the price of the procured item, the successful vendor shall extend to the Village the lower price offered by the manufacturer on any such promotional item. Further, any price decreases effectuated during the order/contract period by reason of market change or otherwise, shall be passed on to the Village. Additionally, any time after award, the vendor may offer a reduced price which shall remain in effect for the duration of the order/contract.

SPECIAL CONDITIONS

57. PURPOSE

The Village of Palm Springs, Florida is seeking proposals from qualified and responsible contractors to provide holiday lighting on trees and holiday decorations at various locations throughout the Village.

58. TERM OF CONTRACT

The Agreement shall commence on the date of the duly executed Agreement and shall remain in effect for period of three (3) years, contingent upon the completion and submittal of all required RFP documents. Work must be completed by two Mondays prior to Thanksgiving Holiday and remain operational until second Monday in January each year of the contract.

59. OPTIONS TO RENEW

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The Village Council and the successful Proposer may agree to two (2) one-year renewal options.

60. EQUAL PRODUCTS

Only the referenced manufacturers will be considered unless noted otherwise in the technical specifications.

61. INSURANCE

The awarded Proposer shall not commence any performance pursuant to the terms of this Solicitation until certification or proof of insurance has been received by the Village Clerk and approved.

The required insurance coverage is to be issued by an insurance company authorized and licensed to do business in the State of Florida, with the minimum rating of A- VIII or better, in accordance with the latest edition of A.M. Best's Insurance Guide. This insurance shall be documented in certificates of insurance which provide that the Village of Palm Springs shall be notified at least thirty (30) days in advance of cancellation, non-renewal, or adverse change. The receipt of certificates or other documentation of insurance or policies or copies of policies by the Village or by any of its representatives, which indicate less coverage than is required, does not constitute a waiver of the awarded Proposer's obligation to fulfill the insurance requirements herein. Deductibles must be acceptable to the Village of Palm Springs.

The awarded Proposer must submit a current Certificate of Insurance, naming the Village of Palm Springs as an additional insured, and include a waiver of subrogation, and list as such on the insurance certificate. New certificates of insurance are to be provided to the Village upon expiration.

Unless otherwise specified by the Village, The Proposer shall provide insurance coverage as follows:

- (a) Workers' Compensation Insurance – as required by law.
- (b) Employer's Liability Insurance - \$1,000,000 per occurrence, \$1,000,000 for each disease, and \$1,000,000 for aggregate disease
- (c) Comprehensive General Liability Insurance – with limits of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate for Bodily Injury and Property Damage.
- (d) Automobile Liability Insurance - for owned, non-owned and hired vehicles – with a limit of not less than \$1,000,000 per occurrence, and \$2,000,000 in the aggregate for Bodily Injury Liability and Property Damage Liability.
- (e) Professional Liability in an amount of not less than \$1,000,000 per claim.

If no deductible for insurance is referenced above, the Village reserves the right to require such deductibles which shall be determined by the Village Clerk, but not less than \$25,000 per claim.

The Comprehensive General Liability insurance policy must include coverage that is not more restrictive than the latest edition of the Comprehensive General Liability Policy, without restrictive endorsements, as filed by the Insurance Services Offices, and the policy must include coverage's for premises and/or operations, independent contractors, products and/or completed operations for contracts, contractual liability, broad form contractual coverage, broad form property damage, products, completed operations, and personal injury. Personal injury coverage shall include coverage that has the Employee and Contractual Exclusions removed.

62. CERTIFICATIONS

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Any Proposer that submits an offer in response to this Solicitation shall, at the time of such offer, hold all necessary certifications issued by the State or County Examining Board qualifying the Proposer to perform the work proposed for this project. If other professions or trades are required in conjunction with this Solicitation and such work/services will be performed or provided by a subcontractor(s), an applicable Certificate of Competency issued to the subcontractor(s) shall be submitted with the Proposer's offer; provided, however, that the Village may at its option and in its best interest allow the Proposer to supply the subcontractor(s) certificate to the Village during the evaluation period.

63. METHOD OF PAYMENT: INVOICE FOR COMPLETED WORK

The awarded Proposer shall submit an invoice to the Village for progress payments for work that has been completed and has been reviewed and accepted by the Village. The date of the invoices shall not exceed thirty (30) calendar days from the completion of that portion of the work. Under no circumstances shall the invoice be submitted to the Village in advance of the completion and acceptance of the work.

The invoice shall contain the following basic information: the awarded Proposer's name and address, invoice number, date of invoice, description of the goods or service, the contract number, purchase order number, and any discounts.

The Village prides itself on paying its vendors promptly and efficiently, and as such requires that vendors accept payment via method of check or Electronic Funds Transfer. All payments shall be made in accordance with the Florida Prompt Payment Act, Section 218.74, Florida Statutes, upon presentation of a proper invoice by the awarded Proposer.

64. WARRANTY REQUIREMENTS

In addition to all other warranties that may be supplied by the Proposer or required in the technical specifications, the awarded Proposer shall warrant its products and/or service against faulty labor and/or defective material, for a minimum period of one (1) year from the date of acceptance of the labor, materials and/or equipment by the Village. This warranty requirement shall remain in force for the full period; regardless of whether the awarded Proposer is under contract with the Village at the time of defect. Any payment by the Village on behalf of the services received from the awarded Proposer does not constitute a waiver of these warranty provisions.

65. PATENTS AND ROYALTIES

The awarded Proposer, without exception, shall indemnify and hold harmless the Village and its employees from liability of any nature or kind, including cost and expenses for, or as a result of, any copyrighted, patented, or unpatented invention, process, or article manufactured by the awarded Proposer. The awarded Proposer has no liability when such claim is solely and exclusively due to the combination, operation, or use of any article supplied hereunder with equipment or data not supplied by awarded Proposer or is based solely and exclusively upon the Village's alteration of the article. The Village will provide prompt written notification of a claim of copyright or patent infringement.

Further, if such a claim is made or is pending, the awarded Proposer may, at its option and expense, procure for the Village the right to continue use of, replace or modify the article to render it non-infringing. (If none of the alternatives are reasonably available, the Village agrees to return the article on request to the awarded Proposer and receive reimbursement, if any, as may be determined by a court of competent jurisdiction.) If the awarded Proposer uses any design, device, or materials covered by letters, patent, or copyright, it is mutually agreed and

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understood without exception that the contract prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.

66. RELEASE OF CLAIM REQUIRED

The awarded Proposer must provide the Village with duly executed affidavits (subcontractor's statement of satisfaction) or releases of claim from all subcontractors and suppliers who have performed any work or supplied any materials for on the project as of that date. The affidavit or releases shall certify that said subcontractors and suppliers have been paid their proportionate share of all previous partial payments to the awarded Proposer. In the event such affidavits cannot be furnished, the awarded Proposer may submit an executed consent of surety to requisition payment; identifying the subcontractors and suppliers with the amounts for which the statement of satisfaction cannot be furnished. If the awarded Proposer fails to provide a consent of surety to requisition payment, the amount in dispute will be withheld until either the statement of satisfaction is furnished, or the consent of surety to requisition payment is furnished.

67. SUBCONTRACTORS OF WORK SHALL BE IDENTIFIED

As part of its Proposal, the Proposer must identify any and all subcontractors that will be used in the performance of the proposed work, their capabilities and experience, and the portion of the work to be done by the subcontractor. The competency of the subcontractor(s) with respect to experience, skill, responsibility, and business standing shall be considered by the Village when making the award in the best interest of the Village. If the Proposer fails to identify any and all sub- contractors in the Proposal, the Proposer may be allowed to submit this documentation during the Proposal evaluation period, if such action is in the best interest of the Village.

68. OTHER FORMS OR DOCUMENTS

If the Village is required by the awarded Proposer to complete and execute any other forms or documents in relation to this Solicitation, the terms, conditions, and requirements in this Solicitation shall take precedence to any and all conflicting or modifying terms, conditions, or requirements of the Proposer's forms or documents.

69. UNUSUAL CHANGES OR COSTS

The Proposer may petition the Village at any time during the term of this Agreement for an additional rate adjustment on the basis of extraordinary and unusual changes in the cost of operations that could not reasonably be foreseen by a prudent operator. The Proposer's request must be made within ninety (90) days of the occurrence of such unusual change or cost, and shall contain substantial proof and justification, as determined by the Village Manager, to support the need for the rate adjustment. The Village may request from the Proposer, and the Proposer shall provide, such further information as may be reasonably necessary in making its determination. Upon receipt of the necessary information, the request for rate adjustment shall be placed on the Village Council's agenda for action.

70. TERMINATION

The Village shall have the right to terminate this Agreement by virtue of a default hereunder by the Proposer. Should the Proposer default on any of its material obligations as set forth herein, then the Village shall notify the Proposer in writing of such default, whereupon the Proposer shall make every reasonable effort to correct the default. If the Proposer refuses or is unable to correct the default within thirty (30) days of written notification, the Village may then give the Proposer sixty (60) days written notice of cancellation. Should the Proposer fail to make payments to the Village as required herein, the Village shall have the right to terminate this Agreement, immediately.

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71. COMPLIANCE WITH LAWS AND ORDINANCES

The Proposer will comply with all standing Federal laws and all Ordinances of the Village in the performance of the duties contemplated by this Agreement.

72. ACCESS AND AUDITS

The Proposer shall maintain within Palm Beach County adequate records of the services during the entire term of the contract and for two years thereafter. The Contract Administrator shall have the right to review all records maintained by the Proposer upon 24 hours written notice.

73. NOTICE

Written notice as provided for herein shall be considered sufficient when sent by certified mail or hand delivered to the parties at the following addresses:

Village of Palm Springs
Attn: Village Clerk
226 Cypress Lane
Palm Springs, FL 33461

74. DELAY – NOT A WAIVER

No delay by the Village in enforcing any covenant or right hereunder shall be deemed a waiver of such covenant or right, and no waiver by the Village of any particular provision hereof shall be deemed a waiver of any other provision or a continuing waiver of such particular provision, and except as so expressly waived, all provisions hereof shall continue in full force and effect.

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GENERAL INFORMATION AND PURPOSE

PURPOSE

The Village of Palm Springs, Florida is seeking proposals from qualified and responsible contractors to provide holiday lighting on trees and holiday decorations at various locations throughout the Village. Contractors shall be responsible for the provision, installation and removal of holiday lights and decorations.

BACKGROUND

Established in 1957, the Village offers a small-Village feel with an incredible sense of community within one of the state's largest urban environments. The Village of Palm Springs has a current population of 26,904 residents, which ranks us as the 12th largest city in Palm Beach County. Our focus is to continue to be a vibrant community filled with neighborhoods that fosters a "small town feel" that values our various cultures as well as our natural environment.

SCOPE OF SERVICES

The Village of Palm Springs, Florida is seeking proposals from qualified and responsible contractors to provide holiday lighting on trees and holiday decorations at various locations throughout the Village. The contractor shall be responsible for the provision, installation, and removal of the holiday lights and decorations.

General Service Requirements

Pricing:

Shall include all labor, material, equipment, and incidentals necessary to furnish all lighting and decorations, annual installation and removal, maintenance, and replacement of burned-out lights.

Permits:

The contractor is responsible for all permit requirements including scheduling inspections and meeting code requirements.

Display Period:

- Lights must be in place no later than two weeks **before Thanksgiving**.
- The lights must be removed by the second week of **January**.
- Lit decorations shall be on timers to remain on from dusk to dawn seven days per week.

Contractor shall coordinate with the Village Public Works regarding the amperage and electrical requirements by October 31st and coordinate with other Village departments as necessary.

Equipment:

Contractor shall supply all lifts and other materials necessary to install, maintain, and remove all lights and decorations safely and successfully.

Maintenance:

Contractor must maintain the lights and decorations throughout the display period to ensure all lights are on and functioning. All malfunctioning lights that occur during the period must be repaired within a reasonable time, not to exceed three (3) days from the time of notice of malfunctions. The contractor's staff shall respond to the Village's request form maintenance within twenty-four hours. The contractor shall provide the name and contact information for

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maintenance staff, including telephone number and email address to facilitate contact regarding any display problem as required.

Removal:

The contractor is responsible for the removal of all decorations and lighting withing seven (7) days of the end of the display period.

Disposal of Waste:

The contractor shall arrange to dispose of all waste from the work being performed. All areas of display must be kept clean and free from any debris, e.g., zip ties, tape, etc. after removal of decorations.

Safety Precautions:

Contractor shall be careful when working in various areas. Damage to public and private property shall be the responsibility of the Contractor and shall be repaired or replaced at no expense to the Village or property owner.

Other Requirements:

- The contractor will coordinate all required permitting.
- The contractor will provide the necessary Certificates of Insurance as required by the Village.
- The contractor will provide available work force to render services.
- Contractor shall have the capability of providing local repair and maintenance services.

Locations of project and quantities:

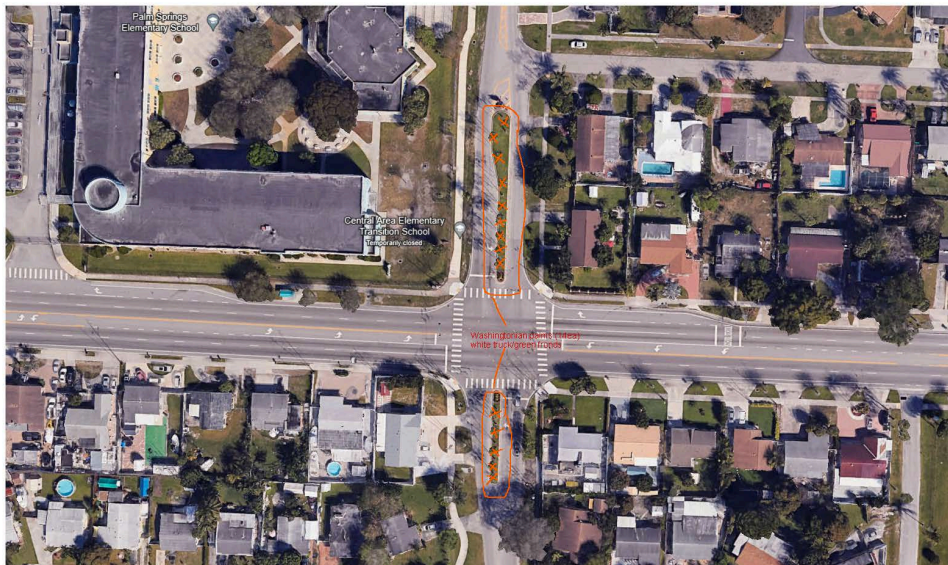
- 1) Greenbrier at Congress- 9 Royal palms, white lights around trunks / green lights on bottom of palm fronds.
- 2) Davis at 10th Ave N = 14 Washingtonian palms, white lights around trunks/ green lights on bottom of palm fronds.
- 3) Village Hall courtyard = 6 live oaks white lights
- 4) Village Hall north side pathway = arches (300')
- 5) Library east side pathway = 15 royal palms, white lights around trunk/green lights on bottom of palm fronds.
- 6) Library south side parking lot island = 12 cabbage palms, white lights around trunks

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- 1 **Greenbrier and Congress median- (9 Royal Palms, White Lights on Trunks/Green Palm Fronds)**

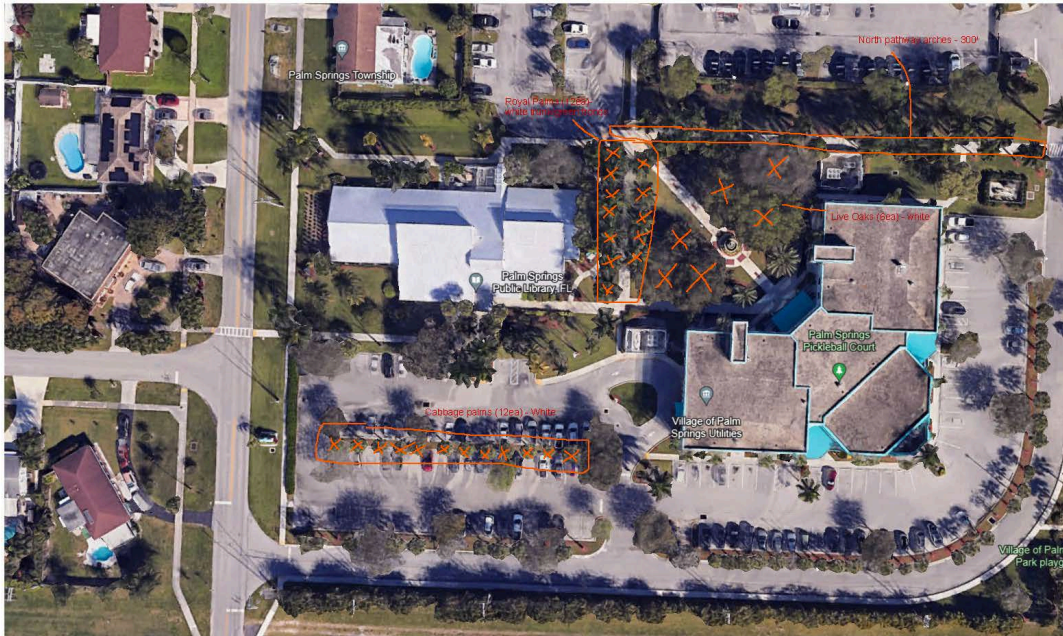


- 2 **Davis Rd and 10th Ave N medians (14 Washingtonian Palms, White Lights on Trunks and Green Palm Fronds)**



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- 3 Village Hall Courtyard (6 Live Oaks- White Lights on Trunks)
- 4 Village Hall Courtyard Pathway (300' of Lighted Arches, minimum of 10' at center of arch)
- 5 Village Library East Pathway (15 Royal Palms, White Lights on Trunks, Green Palm Fronds)
- 6 Village South Parking Lot Island (12 Cabbage Palms, White Lights on Trunks)





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RFP PROCESS

Request for Proposal

Request for Proposals documents are available beginning **June 20, 2024**. The Village of Palm Springs utilizes electronic online services for notification, distribution, and submittal of its Solicitation documents. The Village's Solicitation information can be obtained from (a) www.DemandStar.com or contact the Village Procurement Specialist, at procurement@vpsfl.org

Schedule of Events

A summary schedule of the major activities associated with this RFP is presented below. The Village, in its sole discretion, may modify the schedule as the Village deems appropriate. The Village will provide notification of any changes to the schedule by issuing written addenda.

The following is an estimated schedule to be followed for this RFP:

Issuance of RFP Package	06/20/2024	2:00 PM
Non Mandatory Pre Bid Questions	07/01/2024	2:00 PM
Deadline for Written Questions	07/08/2024	5:00 P.M.
Deadline to Submit RFP	07/19/24	4:00 P.M.

Award of the Contract by Village Council

As soon as practicable after the Selection Committee, if appointed, completes its assessment of the proposals, the Selection Committee's recommendation shall be presented to the Village Council at a public meeting that is duly noticed. It is anticipated that the Village Council will award the RFP to the Proposer that submits the best overall proposal, based on the Village Council's determination of the Village's best interests and the best overall value for the Village. The Village Council shall have the exclusive authority to select the best overall proposal and make any determinations concerning the responsiveness of the Proposers, the value of their proposals, the Proposer's respective abilities to satisfactorily perform the work specified in the Village's RFP, and all other related matters. After the Village Council selects the successful Proposer, the successful Proposer and the Village shall execute the Agreement for Professional Services.

Evaluation and Scoring

The selection process consists of evaluation and scoring by the Selection Committee, as appointed by the Village Manager. Each category will be scored and when the scores awarded for all categories are totaled, the scores will be tabulated and added to achieve the Total Points awarded to each firm. The ranking of each firm will be tabulated from each Committee Member and combined with other Committee Members to determine the total score for the firm. In the event there is only one responsive responsible response a selection committee shall not be required to be appointed.

The Evaluation Criteria is made up of the categories below that collectively represent a Total Point Value of 100 points, as described herein. The points indicated below as "Potential Points" are the maximum that can be allocated for each category. The point value shall be the basis of establishing a ranking of RFP submittals.

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1. **Qualifications of Team:** Scoring will be based on the qualifications and relevant experience of the firm, including key personnel. This includes certification of staff, relevant knowledge, and experience on similar projects that will translate into the successful execution of the project.
2. **Experience and Expertise:** Teams will be evaluated based on their experience on similar projects, experience working with government agencies, how the projects translate to success on this project, quality of those projects, maintenance of the schedule, problems encountered, and the means to solve them.
3. **Firm Location, Project Delivery, and Approach:** Scoring for this category will consider the team organization, understanding of the Village's needs and challenges, the project management and communication plan, ability to meet budget and provide services in a timely manner, and how quality and accuracy are ensured. Include a detailed time schedule for the start and completion of the project. Firm location considering how it impacts maintaining effective communication between the Village and Consultant.
4. **Firm's Resources, Personnel Availability, and Commitment:** The firm shall demonstrate a commitment to ensuring the Village's interests are met by completing projects on time and within budget. The firm must also demonstrate flexibility to complete projects per the Village's specifications. Provide availability of the project manager, key personnel, and consultants as a percentage of their total work effort that will be devoted to the proposed project.
5. **Fees for Professional Services:** The firm must provide a detailed itemization of the cost of services. The proposal should provide the total, all-inclusive, maximum fees for this project. The fee should include all direct and indirect costs including out-of-pocket expenses. If additional work is requested outside the Scope of Services of this project, the Village reserves the right to negotiate a fixed fee for such services.
6. **References:** References will be evaluated based on their ratings, how relevant the project is to this RFP, and specific comments provided by the references.

<u>EVALUATION CATEGORIES</u>	<u>POTENTIAL POINTS</u>
Qualification of Team	10
Experience and Expertise	15
Project Delivery and Approach	15
Firm's Resources, Personnel Availability & Commitment	10
Fees for Professional Services	40
References	10
Total of Points	100

Each Committee member will be awarded points according to the evaluation criteria. The points indicated as Points Possible are the maximum that may be awarded for each Category. The points awarded for each Category will be totaled to achieve the Total Points awarded to each Proposer. The Proposer with the greatest cumulative Total Points will be ranked 1, the next greatest total ranked 2, etc.

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REQUEST FOR PROPOSALS
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In the event a tie occurs for the top-ranking position, the selection committee will rescore using the following method. The tie firms will be individually re-ranked (1,2 etc.) based on the total of points awarded by each committee member through the rescoring process. The Proposer with the highest grand total of points by the committee, through rescoring, will become the #1 ranked Proposer.

The Selection Committee may request firms to make a presentation of their proposal. This will provide an opportunity to clarify or elaborate on the proposal, but will not, in any way provide an opportunity to change any items in the original proposal. The Selection Committee may request such presentations prior to ranking or depending on the number of proposals received, the Selection Committee may rank the proposals and then request presentations of the highest-ranked firms. If the proposals were first ranked and then presentations were made, the Selection Committee shall then be allowed to re-rank the proposals based on the same original ranking criteria and the final ranking shall be forwarded to the Village Council.

If you have any questions concerning the RFP Process or Submission Requirements, please submit your questions via email to the Procurement Specialist at procurement@vpsfl.org.



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
RFP 2024R-005
HOLIDAY TREE LIGHTING AND DECORATIONS

SUBMISSION REQUIREMENTS

Project Name: Holiday Tree Lighting and Decorations

Proposal Number: RFP 2024R-005

The following items must be included in the proposal response:

1. Letter of Interest on your company's letterhead
2. Required documentation support requested in the Scope of Services
3. Copy of Submission Requirements form
4. Price Schedule Proposal Form
5. Attachments A -J
6. E-Verify Support (Memorandum of Understanding)
7. W-9 Form
8. Certificate of Liability Insurance
9. Supplemental Forms (i.e. license/certification)

PROPOSER (firm name): _____

PRINT NAME OF AUTHORIZED REPRESENTATIVE: _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

TITLE: _____ DATE: _____



VILLAGE OF PALM SPRINGS
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PRICE SCHEDULE PROPOSAL SUBMITTAL FORM

Item No.	Description	Unit	Estimate Quantity	Bid Unit Price	Bid Price
1	Greenbrier at Congress- 9 Royal palms, white lights around trunks / green lights on bottom of palm fronds.	9			
2	Davis at 10 th Ave N = 14 Washingtonian palms, white lights around trunks/ green lights on bottom of palm fronds.	14			
3	Village Hall courtyard = 6 live oaks white lights	6			
4	Village Hall north side pathway = arches (300') arches must be minimum of 10' in height at center point of each arch, candy cane design	1			
5	Library east side pathway = 15 royal palms, white lights around trunk/green lights on bottom of palm fronds.	15			
6	Library south side parking lot island = 12 cabbage palms, white lights around trunks	12			
7	Individual Tree (s) add-ons				
	Royal Palms- white lights around trunks/green lights on bottom of palm fronds	1			
	Oak Trees- white lights	1			
	Cabbage Palms- white lights around trunks	1			
	TOTAL OF ALL BID ITEMS		\$		



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***PLEASE AFFIX SIGNATURE WHERE INDICATED
(FAILURE TO DO SO SHALL RESULT IN THE REJECTION OF YOUR RFP)**

By signature on this document, Proposer acknowledges and agrees that its offer includes and accepts all terms, conditions, and specifications of the Village's RFP solicitation as originally published, without exception, change or alteration of any kind, except as may have been published by the Village in official amendments prior to the submission time.

Firm Name		Date
*Signature	Print Name	Print Title
Telephone		Email Address
Toll Free #		Fax #
Applicable License(s) #		Type
Federal	Identification	Number



VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
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HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT A: PROPOSAL CERTIFICATION FORM
(Proposer must complete, sign, and return with the proposal)

I hereby certify that I am submitting my company's proposal and understand that by virtue of executing and returning with this proposal, this Proposal Certification Form, I certify that all information is correct, and I understand the contents and accept the conditions of the Request for Proposal and this Proposal Certification Form.

Acknowledgment of Addenda:

It is agreed that the proposer has received and understands all addenda issued by the Village.

The Proposer acknowledges receipt of supplement(s) as follows:

Addendum #	_____	Date of Addendum	_____
Addendum #	_____	Date of Addendum	_____
Addendum #	_____	Date of Addendum	_____
Addendum #	_____	Date of Addendum	_____

PROPOSER (firm name): _____

FIRM ADDRESS: _____

PRINT NAME OF AUTHORIZED REPRESENTATIVE: _____

EMAIL ADDRESS OF AUTHORIZED REPRESENTATIVE: _____

PHONE NUMBER OF AUTHORIZED REPRESENTATIVE: _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

TITLE: _____ DATE: _____



VILLAGE OF PALM SPRINGS
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**ATTACHMENT B: ADDENDUM TO PROPOSAL
CERTIFICATION FORM**

As part of its proposal, the Proposer shall provide to the Village a list of all instances within the immediate past four (4) years where there has been a final adjudicated determination in a legal or administrative proceeding in the State of Florida that the Proposer discriminated against its subcontractors, vendors, suppliers or commercial customers, and a description of the status or resolution of that complaint, including any remedial action taken.

The Proposer shall select the appropriate box:

_____ Proposer certifies that Proposer has had no final adjudications in Florida of discrimination against subcontractors, vendors, suppliers or commercial customers in the immediate past 4 years.

_____ Proposer has attached to this form a list of all instances within the immediate past four (4) years where there has been a final adjudicated determination in a legal or administrative proceeding in the State of Florida that the Proposer discriminated against its subcontractors, vendors, suppliers or commercial customers, and a description of the status or resolution of that complaint, including any remedial action taken.

PROPOSER (firm name): _____

PRINT NAME OF AUTHORIZED REPRESENTATIVE: _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

TITLE: _____

DATE: _____



VILLAGE OF PALM SPRINGS
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**ATTACHMENT C: CERTIFICATION OF BUSINESS
LOCATION FORM**

I. Proposer is a:

_____ **Local Business:** Local preference will be given to local businesses (entity or person) with a physical address within the village limits; second preference is within the county; and, third preference is within the state. Proof of the person's or entity's residency shall be a valid business tax receipt issued by the local government where the business is located. (Village of Palm Springs Code Section 58-14).

(Please indicate):

_____ Physical address within Village of Palm Springs limits

_____ Physical address outside of Village of Palm Springs but within Palm Beach County

_____ Physical address within the State of Florida

_____ **Non-local:** The Proposer does not have a physical address within the State of Florida

II. For Local Businesses: The attached copy of the Proposer's Business Tax Receipt verifies the Proposer's **permanent** place of business.

THIS CERTIFICATION is submitted by [Name of Individual:] _____
as [Title:] _____ of [Name of Firm:] _____

who hereby certifies that the information stated above is true and correct and that the Business Tax Receipt if attached hereto is a true and correct copy of the original. Further, it is hereby acknowledged that any misrepresentation by the Proposer on this Certification will be considered an unethical business practice and be grounds for sanctions against future Village business.

(Signature)

(Date)

VILLAGE OF PALM SPRINGS
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HOLIDAY TREE LIGHTING AND DECORATIONS



ATTACHMENT D: VENDOR CONFLICT OF INTEREST DISCLOSURE STATEMENT INFORMATION AND INSTRUCTIONS

The award of this contract is subject to the provisions of Chapter 112, Part III, *Florida Statutes*, and section 6.02 of the Charter of the Village of Palm Springs. The Village requires all potential vendors, as defined herein, to complete and submit this Conflict of Interest Disclosure Statement in connection with any competitive purchase in excess of \$7,500.00.

The purpose of this disclosure form is to give the Village the information needed to identify potential conflicts of interest for evaluation team members, public officials, and other key personnel involved in the award of this contract and to take appropriate remedial measures. The information disclosed will not necessarily be deemed a conflict of interest or result in disqualification. If you are unsure whether certain information is responsive, you should include it in the disclosure.

The original disclosure statement shall be maintained by the Village Clerk, with a copy retained by the Finance Department.

- The Village will not enter into any contract or purchase order with any vendor who fails or refuses to provide all information required in the disclosure form.
- For vendors consisting of partnerships or joint ventures, each member of the partnership or joint venture is required to complete and submit the form.
- Any vendor who provides incorrect, misleading, or incomplete information on the disclosure statement shall be disqualified from participation.
- If the Village discovers misleading, incorrect, or incomplete information on the disclosure statement subsequent to the execution of a contract, the contract will be voidable by the Village;
- Serious and/or repeated failure to provide complete and accurate information on the Conflict of Interest Disclosure Form may lead to suspension or debarment of the vendor pursuant to Sec. 58-16 of the Village Code.

DEFINITIONS

"Business Entity" means any corporation, partnership, limited partnership, company, limited liability company, proprietorship, firm, enterprise, franchise, association, self-employed individual, or trust, whether fictitiously named or not, doing business in the State of Florida.

"Conflict of Interest" means a situation in which regard for a private interest tends to lead to disregard of a public duty or interest.

"Financial interest" means direct or indirect ownership or other interest that may result in special private gain or loss.

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“Person” means an individual, firm, partnership, association, joint venture, cooperative, or corporation, or any other group or combination acting in concert.

“Public Official” includes any person elected or appointed to hold office in any agency, including any person serving on an advisory body.

“Relative” means an individual who is related to a public officer or employee as a father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half-brother, half-sister, grandparent, great grandparent, grandchild, great-grandchild, step-grandparent, step great grandparent, step-grandchild, step great-grandchild, a person who is engaged to be married to the public officer or employee or who otherwise holds himself or herself out as or is generally known as the person whom the public officer or employee intends to marry or with whom the public officer or employee intends to form a household, or any other natural person having the same legal residence as the public officer or employee.

“Vendor” means (1) any business entity or person submitting a response to an invitation to bid, request for proposals, request for qualifications, or other solicitation in connection with the procurement of goods or services; or (2) any business entity or person entering into a contract or purchase order in excess of \$7,500.00 with the Village.

VILLAGE OF PALM SPRINGS
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INSTRUCTIONS

Complete all lines as indicated. If the answer to any question is "None," so indicate. If an item does not apply, denote N/A (not applicable). If you cannot include the required information in the space provided, attach additional sheets as necessary.

**VILLAGE OF PALM SPRINGS
VENDOR CONFLICT OF INTEREST DISCLOSURE FORM**

NAME OF VENDOR

NAME OF PERSON COMPLETING FORM

RELATIONSHIP TO VENDOR

ADDRESS

CITY, STATE, ZIP

TELEPHONE NUMBER

CONTACT EMAIL ADDRESS

CELL PHONE NUMBER

This form is provided in connection with:

☐ Invitation to Bid (specify) _____

☒ Request for Proposal / Qualifications (specify) RFP 2024R-005

☐ Other (specify) _____

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1. List below the name(s), titles and address(es) of all **public officials and employees** of the Village having an **employment or contractual relationship with the Vendor** and describe the nature and extent of the relationship.

2. List below the name(s), titles and address(es) of all **relatives of public officials and employees** of the Village having an **employment or contractual relationship with the Vendor**, state to whom and how they are related, and describe the nature and extent of the employment or contractual relationship with the vendor.

3. List below the name(s), titles and address(es) of all **public officials and employees** of the Village having any direct or indirect **financial interest in the Vendor** (other than a relationship described in response to paragraph no. 1, above) and describe the nature and extent of the interest.

4. List below the name(s), titles, and address(es) of all **relatives of public officials and employees** of the Village having any direct or indirect **financial interest in the Vendor** (other than a relationship described in response to paragraph no. 2, above), state to whom and how they are related, and describe the nature and extent of the financial interest.

VILLAGE OF PALM SPRINGS
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5. Describe any other circumstances of which you are aware may give rise to a conflict of interest with respect to the award of the contract referenced above to the Vendor.

Under penalties of perjury, I declare that I have read the foregoing VENDOR CONFLICT OF INTEREST DISCLOSURE FORM and that the facts stated in it are true and complete to the best of my knowledge after diligent inquiry. I understand that any untrue or incomplete statements herein shall be cause for disqualification from participation in the proposed transaction. I further understand that I am under a continuing duty to supplement this form to correct any errors or omissions and to provide newly discovered information.

Signature

Date

Printed Name

Title



VILLAGE OF PALM SPRINGS
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ATTACHMENT E: PUBLIC ENTITY CRIMES STATEMENT

(To be signed in the presence of a notary public or other
officer authorized to administer oaths.)

STATE OF _____

COUNTY OF _____

Before me, the undersigned authority, personally
appeared _____, who, being by me first duly sworn, made the following
statement:

1. The business address of

(Firm name of Bidder/Proposer)
is _____.

2. My relationship to _____
(Firm name of Bidder/Proposer)
is _____
(relationship such as a sole proprietor, partner, president, or vice president)

3. I understand that a "public entity crime" as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or such an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

4. I understand that "convicted" or "conviction" is defined by the statute to mean a finding of guilt or a conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

5. I understand that "affiliate" is defined by the statute to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime; or (2) an entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime; or (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate; or (4) a person or corporation who knowingly entered into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.

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6. Neither the Bidder/Contractor nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Bidder/Contractor, nor any affiliate of the Bidder/Contractor, has been convicted of public entity crime subsequent to July 1, 1989.

(Draw a line through Paragraph 6 if Paragraph 7 below applies.)

7. There has been a conviction of a public entity crime by the Bidder/Contractor, or an officer, director, executive, partner, shareholder, employee, member or agent of the Bidder/Contractor who is active in the management of the Bidder/Contractor or an affiliate of the Bidder/Contractor. A determination has been made pursuant to Section 287.133(3) by order of the Division of Administrative Hearings that it is not in the public interest for the name of the convicted person or affiliate to appear on the convicted vendor list. The name of the convicted person or affiliate is _____.

A copy of the order of the Division of Administrative Hearings is attached to this statement.

(Draw a line through Paragraph 7 if Paragraph 6 above applies.)

(Signature)

Sworn to and subscribed to before me in the State and County first mentioned above on the _____ day
_____ of
_____, 20____.

Notary Public

(Affix seal)

My commission expires



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ATTACHMENT F: SCRUTINIZED COMPANIES CERTIFICATION FORM

By execution below, I, _____, on behalf of _____ (hereinafter, the "Contractor"), hereby swear of affirm to the following certifications:

The Following certifications apply to all procurements:

1. The Contractor has reviewed section 215.4725, Florida Statutes, section 215.473, Florida Statutes and section 287.135, Florida Statutes, and understands the same.
2. The Contractor is not on the Scrutinized Companies that Boycott Israel List nor is the Contractor engaged in a boycott of Israel.
3. If awarded a contract, the Contractor agrees to require these certifications for applicable subcontracts entered into for the performance of work/services under this procurement.
4. If awarded a contract, the Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the entire term of the contract, including any and all renewals.

If the contract awarded hereunder is for one million dollars or more, the following additional certifications ns apply:

1. The Contractor is not on the Scrutinized Companies with Activities in Sudan List.
2. The Contractor is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.
3. The Contractor is not engaged in business operations in Cuba or Syria.
4. If awarded a contract, the Contractor agrees to require these certifications for applicable subcontracts entered into for the performance of work/services under this procurement.
5. If awarded a contract, the Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the entire term of the contract, including any and all renewals.

CONTRACTOR: By: _____
Name: _____
Title: _____
Date: _____

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was sworn to (or affirmed) and subscribed before this _____ day of _____, 20____, by _____, who is the _____ of _____, who is personally known to me or who has produced _____ as identification.

NOTARY PUBLIC

Printed Name of Notary _____

My Commission expires: _____



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ATTACHMENT G: NON-COLLUSION AFFIDAVIT

STATE OF _____

COUNTY OF _____

Before me, the undersigned authority, personally appeared _____
after being by me first duly sworn, deposes and says of his/her personal knowledge that:

- a. He/ She is _____ of _____ the
Proposer that has submitted a Qualification to perform work for the following:

RFP No. 2024R-005 Title: _____

- b. He/ She is fully informed respecting the preparation and contents of the attached Request for Proposals, and of all pertinent circumstances respecting such Solicitation.
- c. Such Proposal is genuine and is not a collusive or sham Proposal.
- d. Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly, with any other Proposer, firm, or person to submit a collusive or sham Proposal in connection with the Solicitation and contract for which the attached Proposal has been submitted or to refrain from proposing in connection with such Solicitation and contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Proposer, firm, or person to fix the price or prices in the attached Proposal or any other Proposer, or to fix any
- e. overhead, profit, or cost element of the Proposal price or the Proposal price of any other Proposer, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the Village or any person interested in the proposed contract.

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- f. The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Signature

STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, 2024 by _____

Signature of Notary

[NOTARY STAMP]

Commission Expires: _____



VILLAGE OF PALM SPRINGS
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**ATTACHMENT H: DRUG-FREE WORKPLACE
CERTIFICATE**

I, the undersigned, in accordance with Florida Statute 287.087, hereby certify that

(Print or Type Name of Firm)

- Publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace named above, and specifying actions that will be taken against violations of such prohibition.
- Informs employees about the dangers of drug abuse in the workplace; the firm's policy of maintaining a drug-free working environment and available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug-use violations.
- Gives each employee engaged in providing commodities or contractual services that are under bid or proposal of a copy of the statement specified above.
- Notifies the employees that as a condition of working on the commodities or contractual services under bid or proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of or plea of guilty or nolo contendere to any violation of Chapter 1893 or any controlled substance law of the State of Florida or the United States for a violation occurring in the workplace, no later than 5 days after such conviction, and requires employees to sign copies of such written statement to acknowledge their receipt.
- Imposes a sanction on or requires the satisfactory participation in a drug-abuse assistance or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
- Makes a good faith effort to continue to maintain a drug-free workplace through the implementation of the drug-free workplace program.

"As a person authorized to sign this statement, I certify that the business, firm, or corporation named above complies fully with the requirements set forth herein."

Authorized Signature

Date Signed

« « « « « Notary on the following page » » » » »

VILLAGE OF PALM SPRINGS
REQUEST FOR PROPOSALS
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HOLIDAY TREE LIGHTING AND DECORATIONS

State of: _____

County of: _____

Sworn to and subscribed before me this day of____, 20____ ☐ Personally
known or ☐ Produced Identification _____ .
(Specify Type of Identification)

Signature of Notary

[NOTARY STAMP]

Commission Expires: _____



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ATTACHMENT I: TRUTH-IN-NEGOTIATION CERTIFICATE

The undersigned warrants:

i) that it has not employed or retained any company or person, other than bona fide employees working solely for the undersigned, to solicit or secure the Agreement and

ii) that it has not paid or agreed to pay any person, company, corporation, individual, or firm other than its bona fide employees working solely for the undersigned or agreed to pay any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of the Agreement.

The undersigned certifies that the wage rates and other factual unit costs used to determine the compensation provided for in the Agreement are accurate, complete, and current as of the date of the Agreement.

This document must be executed by a Corporate Officer:

Name

Title

Date

Signature



VILLAGE OF PALM SPRINGS
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HOLIDAY TREE LIGHTING AND DECORATIONS

ATTACHMENT J: REFERENCE FORM

RFP Number & Title: 2024R-005 Holiday Tree Lighting and Decorations

Reference: _____
(Company Name providing Reference)

Name/Title: _____
(Name and Title of Person providing Reference)

Project/Service: _____
(Project/Service which references are being provided)

Project Manager: _____
(Project for which references are being provided)

Telephone: _____ Fax: _____

Describe the scope of work of the contract awarded by your company/agency to this contractor:

No.	Questions	Rating	Comments
1.	Rate the level of commitment of the firm to your project. Did they devote the time and management staff necessary for successful and timely work?		
2.	Rate the quality of customer service and the competence and accessibility of the personnel.		
3.	Rate how well the firm listened and understood the specific needs of your organization.		
4.	Rate how well the firm met the major schedule milestones for the project.		
5.	Rate the firm's success at minimizing and controlling potential mistakes.		
6.	Rate the overall quality of the work.		

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7.	Rate the technical competence of the firm and its personnel.		
8.	Rate the integrity and professionalism of the firm.		
9.	If you have a similar contract to undertake in the future, would the firm be considered? Yes – No		

Rating: 1= Poor 2= Fair 3= Average 4= Good 5= Excellent

Signature	Date
-----------	------



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Utilities

ITEM #3: Resolution No. 2024-41 - Contract Award ITB No. 2024B-014 - Approve Main & RL Pratt Water Treatment Plants Ammonia Feed System Improvements project award (Task Order No.s' 321 & 322) – Utilities Department (FY2025 Budget Funded – Water & Sewer Enterprise Fund) - Florida Design Drilling, LLC

SUMMARY: The Village owns and operates the Main Water Treatment Plant and the RL Pratt Water Treatment Plant, which utilize combined chlorine as the Public Water Systems residual disinfectant, the feed rate of sodium hypochlorite and anhydrous ammonia requires careful control and operation to allow an adequate free chlorine residual to be maintained before anhydrous ammonia feed point for an adequate anhydrous ammonia feed rate to be utilized during the chloramination process to form monochloramines. The current system is near the end of its useful life and the Village desires to replace the existing system with newer technology to better control anhydrous ammonia feed rates utilizing flow-paced feed control, the addition of a monochloramine analyzer downstream of the ammonia injection point to monitor the chloramination process, and replace the existing total chlorine analyzer at the distribution system point of entry to maintain high-quality drinking water.

To ensure the lowest possible price for this project, the Village issued an Invitation to Bid (ITB) on August 1, 2024, for the Main & RL Pratt Water Treatment Plants Ammonia Feed System improvements. This process was completed by the Village through a competitive selection process - Main & RL Pratt Water Treatment Plants Ammonia Feed System Improvements (ITB No. 2024B-014) on August 29, 2024.

Within the FY 2025 Budget – Water & Sewer Enterprise Fund and the Capital Improvement Plan (CIP), the Village approved \$800,000.00 (TO#321 - \$400,000.00 – TO#322 - \$400,000.00) for the Main & RL Pratt Water Treatment Plants Ammonia Feed System improvements. 2 bid proposals were received.

<u>Vendor</u>	<u>Total Bid</u>
Lawrence Lee Construction Services, Inc	\$1,304,000.00
Florida Design Drilling, LLC	\$984,400.00

After reviewing the 2 bids received, the Utilities Director, Assistant Utilities Director, Utilities Project Manager, the Village Attorney, and the Village's Consulting Engineer, Kimley-Horn, determined that Florida Design Drilling, LLC provided the lowest responsible and responsive bid. As a result, the staff is recommending that the Council award this proposed contract (Task Orders No. 321 & 322) to Florida Design Drilling, LLC for the amount of \$984,400.00.

The project will take approximately 365 days to complete following the Notice to Proceed from the Village.

The proposed agreement was prepared by the Village Attorney and reviewed by the Utilities Director, the Assistant Utilities Director, the Utilities Project Manager, and the Finance Director.

The Village has worked with the proposed vendor previously and has received excellent service and a quality product.

FISCAL IMPACT:

Funding to support the proposed Main & RL Pratt Water Treatment Plants Ammonia Feed System improvements is available within the FY 2024 Budget – Water & Sewer Enterprise Fund:

Note: The proposed bid amount \$984,400.00 was submitted by Florida Design Drilling, LLC and was above the engineer's estimate of \$949,300.00.

The Village will not expend more than the amount within the approved budget as it may be adopted/amended each year for these goods and/or services over the term of this contract.

ATTACHMENTS:

1. Proposed Resolution No. 2024-41 - Florida Design Drilling - Ammonia Feed System ITB #2024B-014
2. Proposed Agreement - Florida Design Drilling - Ammonia Feed System Improvements - ITB #2024B-014
3. Bid Advertisement - ITB #2024B-014 Main & Pratt NH3 Upgrade
4. Bid Submittal - Florida Design Drilling - Ammonia Feed System Improvements - ITB #2024B-014
5. Bid Tabulation - ITB #2024B-014
6. Recommendation to Award - ITB #2024B-014 - Ammonia Feed System Improvements
7. Bid Set Plans - ITB #2024B-014
8. Bid Specifications - ITB #2024B-014
9. Addendum No. 1 - ITB #2024B-014
10. Addendum No. 2 - ITB #2024B-014
11. Capital Improvement Project Request Form - Main Water Treatment Plant - Ammonia Feed System Improvements
12. Capital Improvement Project Request Form - RL Pratt Plant - Ammonia Feed System Improvements

RESOLUTION 2024-41

A RESOLUTION OF THE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, TO APPROVE AN AGREEMENT WITH FLORIDA DESIGN DRILLING, LLC FOR AN AMOUNT NOT TO EXCEED \$984,400 FOR THE REPLACEMENT OF THE CURRENT AMMONIA FEED SYSTEM FOR THE MAIN AND RL PRATT WATER TREATMENT PLANTS, PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Village of Palm Springs needs to replace with improvements to the Ammonia Feed Systems at the Main and RL Pratt Water Treatment Plants; and

WHEREAS, Public Works advertised ITB No. 2024B-014 - (TO #321 and #322) - in the Lake Worth Herald on August 1, 2024; and

WHEREAS, Florida Design Drilling, LLC, located at 7733 Hooper Road, West Palm Beach, FL 33411, submitted a proposal on August 22, 2024, to provide replacement and improvements of the Ammonia Feed System at the Main and RL Pratt Water Treatment Plants; and

WHEREAS, the Village's Engineer, Kimley-Horn, and staff have reviewed and considered the proposal from Florida Design Drilling, LLC and find that it is in the village's best interest to approve the agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, AS FOLLOWS:

Section 1: Village of Palm Springs approves the agreement with Florida Design Drilling (TO #321 and #322) for services of repairs and improvements in the amount not to exceed \$984,400.00 Ammonia Feed System Improvements.

Section 2: This resolution shall become effective immediately upon its passage and adoption.

Florida Design Drilling, LLC Agreement for Replacement of the Current Ammonia Feed System for the Main and RL Platt Water Treatment Plants (ITB #2024B-014 [TO #321 & #322])

Council Member _____ offered the foregoing Resolution. Council Member _____ seconded the motion, and upon being put to the vote, the vote was as follows:

	Aye	Nay	Absent
BEV SMITH, MAYOR			
PATTI WALLER, VICE MAYOR			
KIM SCHMITZ, MAYOR PRO TEM			
JONI BRINKMAN, COUNCIL MEMBER			
GARY READY, COUNCIL MEMBER			

The Mayor thereupon declared this Resolution duly passed and adopted this 26th day of September 2024.

VILLAGE OF PALM SPRINGS, FLORIDA BY:

BY: _____
BEV SMITH, MAYOR

ATTEST:

BY: _____
KIMBERLY M. WYNN, VILLAGE CLERK

REVIEWED FOR FORM AND LEGAL SUFFICIENCY BY:

BY: _____
CHRISTY GODDEAU, VILLAGE ATTORNEY

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between Village of Palm Springs ("Owner") and
FLORIDA DESIGN DRILLING, LLC ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Main Water Treatment Plant and Pratt Water Treatment Plant Ammonia Feed System Replacement

ARTICLE 3 – ENGINEER

- 3.01 The part of the Project that pertains to the Work has been designed by Kimley-Horn and Associates, Inc.
- 3.02 The Owner has retained Kimley-Horn and Associates, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

- A. The Work will be substantially completed within 240 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 300 days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The

parties also recognize the delays, expense, and difficulties involved in proving in a legal or other proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$500 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 Special Damages

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work other than Unit Price Work, a lump sum of: \$ 984,400.00.

ITEM NO.	ITEM	QTY	UNIT PRICE (\$)	UNIT	TOTAL (\$)
1	Mobilization and Demobilization (10%)	1	\$74,000.00	LS	\$74,000.00
2	Bonds and Insurance	1	\$58,400.00	LS	\$58,400.00
3	Main WTP Anhydrous Ammonia System	1	\$362,500.00	LS	\$362,500.00
4	Main WTP Contingency/Allowance	1	\$ 75,000.00	LS	\$ 75,000.00
5	RL Pratt WTP Anhydrous Ammonia System	1	\$364,500.00	LS	\$364,500.00
6	RL Pratt Contingency/Allowance	1	\$ 50,000.00	LS	\$ 50,000.00

All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.

- B. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) \$ 984,400.00.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 Progress Payments; Retainage

- A. Payment to the Contractor shall be made pursuant Florida's Prompt Payment Act (for construction services), section 218.735, Florida Statutes (2024), except as provided herein. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer on or about the **20th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
1. Progress payments will be made in an amount equal to the percentages indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with the General Conditions, less liquidated damages, if any.

95% of Work completed.

95% of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to Owner as provided in the General Conditions).

Upon **50%** of the Work being completed, the Contractor may request from Engineer that Owner release a portion of the retainage not to exceed **50%** of the then current total retainage amount being withheld.

Within 20 business days after the Owner's delivery of the finalized punch-list to the Contractor, the Owner will pay the Contractor the remaining Contract balance that includes all retainage previously withheld by the Owner less an amount equal to **150%** of the estimated cost to complete the items on the punch-list. Once all items on the punch-list are completed as confirmed by the Engineer, the Contractor may request payment for the **150%** amount withheld for completion of the punch-list.

Notwithstanding the foregoing, the City shall not be required to pay or release any amounts that are subject of a good faith dispute made in writing pursuant to the Contract Documents or the subject of a claim brought pursuant to section 255.05, Florida Statutes.

6.03 Final Payment

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions (including all punch-list items and settlement of all claims, including liquidated damages) and final inspection by the appropriate agency with jurisdiction over the project (if other than the Owner), the Contractor shall submit a "final invoice" to the Owner. In order for both parties to close their books and records, the Contractor will clearly state "FINAL" on the Contractor's final

invoice. This certifies that all Work has been properly completed and all charges have been invoiced to the Owner. Since this account will thereupon be closed, any and other further charges if not properly included in this final invoice are waived by the Contractor. If the Contractor's Final Invoice is approved as set forth above, the Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06. Notwithstanding the foregoing, the City shall not be required to pay or release any amounts that are subject of a good faith dispute made in writing pursuant to the Contract Documents or the subject of a claim brought pursuant to section 255.05, Florida Statutes.

- 6.04 *Punch-List Process.* In accordance with section 218.735(7), Florida Statutes (2024) and section 15.03 of the General Conditions, prior to declaring the Work substantially complete the Engineer, Owner, and Contractor shall inspect the Work and the Engineer shall create a proposed punch-list of items that must be completed by the Contractor before the Contractor is authorized to submit for final payment. The proposed punch-list must include all items of Work which remain to be completed and the estimated cost to complete each Work item on the list. Upon receipt of the Engineer's proposed punch-list, the Contractor and Owner will have seven (7) days to review, make modifications, or agree to the proposed punch-list and estimated costs. The Engineer will resolve any disputes in the punch-list and deliver the final punch-list to the Owner and Contractor along with the final certificate of substantial completion. **Once the punch-list is finalized and delivered to the Owner and Contractor, the Contractor shall have thirty (30) calendar days to complete all Work on the punch-list.** The failure of either party to include any corrective work or pending items on the finalized punch-list does not alter the responsibility of the Contractor to complete all Work and the Project. The Engineer's proposed punch-list, modifications thereto and finalized punch-list may be by informal written notice (e.g., email, fax, or hand-delivery); however, proof of delivery shall be kept by the person providing the informal written notice to the other.

ARTICLE 7 – INTEREST

- 7.01 All amounts not paid when due shall bear interest at the rate set forth in section 218.735, Florida Statutes (as amended from time to time).

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating

to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 16, inclusive).
 - 2. Performance bond (pages 1 to 3, inclusive).
 - 3. Payment bond (pages 1 to 3, inclusive).
 - 4. Other bonds.
 - a. (pages to , inclusive).
 - b. (pages to , inclusive).
 - c. (pages to , inclusive).
 - 5. General Conditions (pages 1 to 65, inclusive).
 - 6. Supplementary Conditions (pages 1 to 10, inclusive).
 - 7. Specifications as listed in the table of contents of the Project Manual.

8. Drawings (not attached but incorporated by reference) consisting of 38 sheets total, in two (2) sets of 19 sheets with each sheet bearing the following general title: "Main WTP Ammonia Feed System Improvements" or "RL Pratt WTP Ammonia Feed System Improvements".
9. Addenda (numbers 1 to 2, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages 3 to 4, inclusive).
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.
- E. *Governing Order of Contract Documents* - The Contract Documents include various divisions, sections and conditions which are essential parts for the work to be provided by the Contractor. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, the following precedence will govern the interpretation of the Contract Documents prior to award of the Contract:
 1. Agreement
 2. Addenda to Invitation to Bid (solicitation)
 3. Instructions to Bidders
 4. Special Conditions
 5. Supplementary Conditions
 6. General Conditions
 7. Technical Specifications
 8. Details
 9. City Standard Details
 10. Drawings/Plans
 11. Bid Form

After award, Work Change Directives, Change Orders, amendments and revisions to plans and specifications will take precedence over any of the above. In case of discrepancy among technical specifications, drawings and plans, the most restrictive shall govern. Detailed plans shall have precedence over general plans. In the event that any conflicts cannot be resolved by reference to this Governing

Order of Contract Documents provision, then City shall resolve the conflict in any manner which is acceptable to City and which comports with the overall intent of the Contract Documents.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract Documents, no assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract Documents. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 Indemnity

- A. The parties recognize that the CONTRACTOR is an independent contractor. The CONTRACTOR agrees to assume liability for and indemnify, hold harmless, and defend the Owner, its council members, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONTRACTOR, its agents, officers, contractors, subcontractors, employees, or anyone else utilized by the CONTRACTOR in the performance of the Contract Documents. The CONTRACTOR's liability hereunder shall include all attorney's fees and costs incurred by the Owner in the enforcement of this indemnification provision. This includes claims made by the employees of the CONTRACTOR against the Owner and the CONTRACTOR hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. The obligations contained in this provision shall survive termination of the Contract Documents and shall not be limited by the amount of any insurance required to be obtained or maintained under the Contract Documents.
- B. Subject to the limitations set forth in this Section, CONTRACTOR shall assume control of the defense of any claim asserted by a third party against the Owner and, in connection with such defense, shall appoint lead counsel, in each case at the CONTRACTOR's expense. The Owner shall have the right, at its option, to participate in the defense of any third party claim, without relieving CONTRACTOR of any of its obligations hereunder. If the CONTRACTOR assumes control of the defense of any third party claim in accordance with this paragraph, the CONTRACTOR shall obtain the prior written consent of the Owner before entering into any settlement of such claim. Notwithstanding anything to the contrary in this Section, the CONTRACTOR shall not assume or maintain control of the defense of any third party claim, but shall pay the fees of counsel retained by the Owner and all expenses, including experts' fees, if (i) an adverse determination with respect to the third party claim would, in the good faith judgment of the Owner, be detrimental in any material respect to the Owner's reputation; (ii) the third party claim seeks an injunction or equitable relief against the Owner; or (iii) the CONTRACTOR has failed or is failing to prosecute or defend vigorously the third party claim. Each party shall cooperate, and cause its agents to cooperate, in the defense or prosecution of any third party claim and shall furnish or cause to be furnished such records and information, and attend such conferences, discovery proceedings, hearings, trials, or appeals, as may be reasonably requested in connection therewith.
- C. It is the specific intent of the parties hereto that the foregoing indemnification complies with Section 725.06, Florida Statutes, as amended. CONTRACTOR expressly agrees that it will not claim, and waives any claim, that this indemnification violates Section 725.06, Florida Statutes. Nothing contained in the foregoing indemnification shall be construed as a waiver of any immunity or limitation of liability the Owner may have under the doctrine of sovereign immunity or Section 768.28, Florida Statutes.

10.07 *Governing Law and Remedies*

- A. The validity of this Agreement and of any of its terms or provisions, as well as the rights and duties of the parties hereunder, shall be governed by the laws of the State of Florida and venue for any and all disputes related to or arising from this Agreement shall be exclusively in Palm Beach County, Florida.
- B. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

10.08 *Office of the Inspector General*

- A. Palm Beach County has established the Office of the Inspector General, which is authorized and empowered to review past, present, and proposed County programs, contracts, transactions, accounts and records. The Inspector General (IG) has the power to subpoena witnesses, administer oaths, require the production of records, and monitor existing projects and programs. The Inspector General may, on a random basis, perform audits on all of the Owner's contracts.

10.09 *Scrutinized Companies*

- A. Contractor certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List and are not engaged in the boycott of Israel. Pursuant to section 287.135, Florida Statutes, the Owner may immediately terminate this Agreement at its sole option if the Contractor or any of its subcontractors are found to have submitted a false certification; or if the Contractor or any of its subcontractors, are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of the Contract Documents.
- B. The Contractor agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under the Contract Documents. The Contractor agrees that the certifications in this section shall be effective and relied upon by the Owner for the term of the Contract Documents, including any and all renewals. The Contractor agrees that if it or any of its subcontractors' status changes in regards to any certification herein, the Contractor shall immediately notify the Owner of the same. As provided in Subsection 287.135(8), Florida Statutes, if federal law ceases to authorize the above-stated contracting prohibitions then they shall become inoperative.

10.10 *Public Records*

- A. The CONTRACTOR shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the Owner as provided under section 119.011(2), Florida Statutes, specifically agrees to:
 - 1. Keep and maintain public records required by the Owner to perform the service.
 - 2. Upon request from the Owner's custodian of public records or designee, provide the Owner with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract Documents and following completion of the Contract Documents if the Contractor does not transfer the records to the Owner.
4. Upon completion of the Contract Documents, transfer, at no cost, to the Owner all public records in possession of the Contractor or keep and maintain public records required by the Owner to perform the service. If the Contractor transfers all public records to the Owner upon completion of the Contract Documents, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Owner, upon request from the Owner's custodian of public records or designee, in a format that is compatible with the information technology systems of the Owner.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THE CONTRACT DOCUMENTS, CONTACT THE CUSTODIAN OF PUBLIC RECORDS OR DESIGNEE AT 561-584-8200 ext. 8430, kwynn@vpsfl.org, OR BY MAIL AT VILLAGE OF PALM SPRINGS, 226 CYPRESS LANE, PALM SPRINGS, FL 33461.

10.11 Insurance

- A. The limits of liability for insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Law and Regulations:
 1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

a. State	Statutory
b. Applicable Federal	Statutory
c. Employer Liability:	
Bodily injury, each accident	\$1,000,000
Bodily injury by disease, each employee	\$500,000
Bodily injury/disease aggregate	\$1,000,000
d. Foreign voluntary worker compensation	Statutory
 2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

a. General Aggregate	\$2,000,000
b. Products – Completed Operations Aggregate	\$2,000,000
c. Personal and Advertising Injury	\$1,000,000
d. Each Occurrence/Per Claim	\$1,000,000
(Bodily Injury and Property Damage)	

3. Automobile Liability under paragraph 6.03.D of the General Conditions:
 - a. Bodily Injury:

Each Person	\$500,000
Each Accident	\$1,000,000
 - b. Property Damage:

Each Incident	\$1,000,000
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4. Umbrella of Excess Liability under paragraph 6.03.E of the General Conditions:
 - a. Excess or Umbrella Liability
 - 1) General Aggregate \$5,000,000
 - 2) Each Occurrence/Per Claim \$1,000,000
5. Contractor's Pollution Liability under paragraph 6.03.F of the General Conditions:
 - a. Contractor's Pollution Liability
 - 1) General Aggregate \$2,000,000
 - 2) Each Occurrence/Per Claim \$1,000,000
6. Additional Insureds include the respective officers, partners, directors, employees, agents, consultants, and subconsultants of the following firms and municipal government(s):
 - a. Village of Palm Springs

10.12 *Public Construction Bond*

- A. If the total contract price exceeds \$200,000 in total construction cost, the CONTRACTOR must provide the Owner with a public construction bond in accordance with section 255.05, Florida Statutes. Said bond must be recorded in the Official Records in and for Palm Beach County and a certified copy of recorded bond must be provided to the Owner prior to the CONTRACTOR providing any services under the Contract Documents. The Owner reserves the right to request a bond for any work which is less than \$200,000. The cost of the bond shall be a direct pass-through cost to the Owner without any mark-up by the CONTRACTOR.
- B. The public construction bond shall be on forms attached hereto as **Forms C-610 and C-615 "Performance" and "Payment" Bonds** or substantially similar as approved by the Owner. The bond shall be in an amount not less than the total contract price and shall incorporate by reference the terms of the Contract Documents in their entirety.
- C. To be acceptable to the Owner, a Surety Company shall comply with the following provisions:
 - a. The Surety Company shall have a currently valid Certificate of Authority, issued by the State of Florida Department of Insurance, authorizing it to write surety bonds in the State of Florida.
 - b. The Surety Company shall have a currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.
 - c. The Surety Company shall be in full compliance with the provisions of the Florida Insurance Code.
 - d. The Surety Company shall have at least twice the minimum surplus and capital required by the Florida Insurance Code at the time the contract is approved.

- e. The Surety Company shall have at least the ratings of A-/Class V in the latest issue of Best's Key Rating Guide.
- f. The Surety Company shall not expose itself to any loss on any one risk in an amount exceeding ten (10) percent of its surplus to policyholders, provided:
 - 1) Any risk or portion of any risk being reinsured shall be deducted in determining the limitation of the risk as prescribed in this section. These minimum requirements shall apply to the reinsuring carrier providing authorization or approval by the State of Florida, Department of Insurance to do business in this state have been met.
 - 2) In the case of the surety insurance company, in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any security deposited, pledged or held subject to the consent of the surety and for the protection of the surety shall be deducted.

10.13 *Audit by Owner*

- A. The CONTRACTOR shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the Services for at least three (3) years after completion of the Contract Documents. The CONTRACTOR shall permit the Owner, or any authorized representatives of the Owner, at all reasonable times, access to and the right to examine all records, books, papers or documents related to the CONTRACTOR's performance under the Contract Documents including, but not limited to, expenses for sub-contractors, agents or assistants, direct and indirect charges for work performed and detailed documentation for all such work performed or to be performed under the Contract Documents.

10.14 *Copies of Data/Documents*

- A. Copies or original documents prepared by the CONTRACTOR in relation to work associated with the Contract Documents shall be provided to the Owner. Data collected, stored, and/or provided shall be in a form acceptable to the Owner and agreed upon by the Owner.

10.15 *Ownership*

- A. Each and every report, draft, work product, map, record, and other document reproduced, prepared, or caused to be prepared by the CONTRACTOR pursuant to or in connection with this Agreement shall be the exclusive property of the Owner.

10.16 *Limitations of Liability*

- A. Under no circumstances shall either party be liable to the other for any consequential, incidental, special, punitive, or any other form of indirect or non-compensatory damages.

10.17 *Enforcement Costs*

- A. All parties shall be responsible for their own attorneys' fees, court costs and expenses if any legal action or other proceeding is brought for any dispute, disagreement, or issue of construction or interpretation arising hereunder whether relating to the Contract Documents' execution, validity, the obligations provided therein, or performance of the Contract Documents, or because of an alleged breach, default or misrepresentation in connection with any provisions of this Contract Documents.

10.18 *Copyrights and/or Patent Rights*

- A. CONTRACTOR warrants that there has been no violation of copyrights and/or patent rights in the manufacturing, producing or selling of the goods, shipped or ordered, as a result of this Agreement and the CONTRACTOR agrees to hold the Owner harmless from any and all liability, loss, or expense occasioned by any such violation.

10.19 *Protection of Property*

- A. The CONTRACTOR shall at all times guard against damage or loss to the property of the Owner or of other vendors or contractors and shall be held responsible for replacing or repairing any such loss or damage. The Owner may withhold payment or make such deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the successful CONTRACTOR or its agents. The CONTRACTOR shall be responsible to safeguard all of their property such as tools and equipment while on site. The Owner will not be held responsible for any loss of CONTRACTOR property due to theft or vandalism.

10.20 *Damage to Persons or Property*

- A. The responsibility for all damage to person or property arising out of or on account of Scope of Work done under the Contract Documents shall rest upon the CONTRACTOR.

10.21 *Discrimination*

- A. The CONTRACTOR warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, political affiliation, marital status, handicap, or sexual orientation. Further, CONTRACTOR shall not discriminate or permit discrimination against any employee or an applicant for employment on the basis of race, color, sex, religion, political affiliation, natural origin, ancestry, marital status, sexual orientation or handicap.

10.22 *Construction Defects*

- A. PURSUANT TO SECTION 558.005, FLORIDA STATUTES, ANY CLAIMS FOR CONSTRUCTION DEFECTS ARE NOT SUBJECT TO THE NOTICE AND CURE PROVISIONS OF CHAPTER 558, FLORIDA STATUTES.

10.23 *Public Entity Crimes*

- A. Contractor acknowledges and agrees that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier or sub-contractor under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list. The Contractor will advise the Owner immediately if it becomes aware of any violation of this statute.

10.24 *E-Verify*

A. Pursuant to Section 448.095(2), Florida Statutes, beginning on January 1, 2021, the CONTRACTOR shall:

1. Register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all Subcontractors (providing services or receiving funding under the Contract Documents) to register with and use the E-Verify system to verify the work authorization status of all the Subcontractors' newly hired employees;
2. Secure an affidavit from all Subcontractors (providing services or receiving funding under this Agreement) stating that the Subcontractor does not employ, contract with, or subcontract with an "unauthorized alien" as defined in Section 448.095(1)(k), Florida Statutes;
3. Maintain copies of all Subcontractor affidavits for the duration of the Contract Documents and provide the same to the Owner upon request;
4. Comply fully, and ensure all of its Subcontractors comply fully, with Section 448.095, Florida Statutes;
5. Be aware that a violation of Section 448.09, Florida Statutes (Unauthorized aliens; employment prohibited) shall be grounds for termination of the Contract Documents; and,
6. Be aware that if the Owner terminates the Contract Documents under Section 448.095(2)(c), Florida Statutes, the Contractor may not be awarded a contract for at least 1 year after the date on which the Contract Documents are terminated and will be liable for any additional costs incurred by the Owner as a result of the termination of the Contract Documents.

10.25 *Waiver.* Failure of either party to enforce or exercise any right(s) under the Contract Documents shall not be deemed a waiver of either party's right to enforce said right(s) at any time thereafter.

10.26 *Waiver of jury trial.* TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THE CONTRACT DOCUMENTS.

10.27 *Independent Contractor.* The Contractor is, and shall be, in the performance of all Work under the Contract Documents, an Independent Contractor, and not an employee, agent, or servant of the Owner. All persons engaged in any of the Work performed pursuant to the Contract Documents shall at all times and in all places be subject to the Contractor's sole direction, supervision and control.

10.28 *Preparation.* The Contract Documents shall not be construed more strongly against either party regardless of who was more responsible for its preparation.

10.29 *Binding authority.* Contractor's representative below has full power, authority and legal right to execute and deliver these Contract Documents and perform all of its obligations under the Contract Documents. By signing the Contract Documents, the representative hereby represents to the Owner that he/she has the authority and full legal power to execute the Contract Documents and any and all documents necessary to effectuate and implement the terms of the Contract Documents on behalf of the party for whom he or she is signing and to bind and obligate such party with respect to all provisions contained in the Contract Documents.

10.30 *Assignment of warranties.* Contractor shall assign to Owner all warranties extended to Contractor by material suppliers. If an assignment of warranty requires the material supplier to consent to same, then Contractor shall secure the material supplier's consent to assign said warranties to Owner.

10.31 *Termination for failure to provide Public Construction Bond.* If a Public Construction Bond is required under the Construction Documents and the Contractor fails to provide the fully executed Public Construction Bond, including a certified copy of the Public Construction Bond as recorded in the Official Records for Palm Beach County, within fifteen (15) calendar days after the Contractor's and Owner's execution of the Contract Documents, the Owner may immediately terminate the Contract Documents upon written notice to the Contractor and the Owner shall have no further obligation to the Contractor under the Contract. In the event of such termination, the Contractor shall also forfeit its bid security to the Owner.

10.32 *Counterparts.* The Contract Documents may be executed in counterparts, each of which shall be an original, but all of which shall constitute one and the same document. Each of the parties shall sign a sufficient number of counterparts, so that each party will receive a fully executed original of the Contract Documents. The Contract Documents may be executed electronically and such electronic signature shall be treated as an original signature of the party executing the Contract Documents electronically.

**REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE TO FOLLOW**

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

VILLAGE:

By: _____

Title: Mayor

Attest: _____

Title: Village Clerk

Approved
as to
Form: _____

Title: Village Attorney

Address for giving notices:

226 Cypress Lane

Palm Springs FL, 33461

CONTRACTOR:

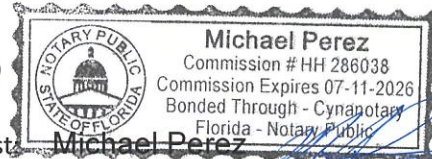
By: Jeffrey Holst

Title: Jeffrey Holst, Senior Vice President

(Seal)

Attest: Michael Perez

Title: Notary Public



Address for giving notices:

7733 Hooper Road

West Palm Beach, FL 33411

License No.: CGC1522104
(where applicable)



VILLAGE OF PALM SPRING OFFICE OF THE VILLAGE CLERK

226 Cypress Lane ▪ Palm Springs, FL ▪ 33461

Affidavit of Compliance with Anti-Human Trafficking Laws

[THIS FORM MUST BE SIGNED AND NOTARIZED]

I, the undersigned, am an authorized officer or agent of Heavy Civil, Inc. ("Vendor") and attest that the Vendor does not use coercion for labor or services as defined in section 787.06, Florida Statutes.

Under the penalty of perjury, I hereby declare swear or affirm that the above state facts are true and correct.

By: Jeffrey Holst

Print Name: Jeffrey Holst

Print Title: Senior Vice President

STATE OF FLORIDA }
COUNTY OF PALM BEACH }

THE FOREGOING instrument was acknowledged before me by means of x physical presence or online notarization on this 17 day of September 2024, by Jeffrey Holst, as the Senior Vice President [title] of Vendor, who is personally known to me or who has produced Personally Known as identification and who did affirm or swear to the same.

Notary Seal:



[Signature]
Notary Public Signature

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

ITEM NO.	ITEM	QTY	UNIT PRICE (\$)	UNIT	TOTAL (\$)
1	Mobilization and Demobilization (10%)	1	74,000.00	LS	74,000.00
2	Bonds and Insurance	1	58,400.00	LS	58,400.00
3	Main WTP Anhydrous Ammonia System	1	362,500.00	LS	362,500.00
4	Main WTP Contingency/Allowance	1	\$ 75,000.00	LS	\$ 75,000.00
5	RL Pratt WTP Anhydrous Ammonia System	1	364,500.00	LS	364,500.00
6	RL Pratt Contingency/Allowance	1	\$ 50,000.00	LS	\$ 50,000.00

Total of All Lump Sums \$ 984,400.00
Nine hundred eighty four thousand four hundred dollars and zero cents

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete within 240 calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 300 calendar days after the date when the Contract Times commence to run.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. List of Proposed Suppliers;
 - D. List of Project References;
 - E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - F. Contractor's License No.: CGC1522104 [or] Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
 - G. Required Bidder Qualification Statement with supporting data; and

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

Florida Design Drilling LLC

By:

[Signature]



[Printed name]

Jeffrey Holst - Senior Vice President

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature]



[Printed name]

Fernanda Sousa

Title:

Project Engineer

Submittal Date:

August 27, 2024

Address for giving notices:

7733 Hooper Road, West Palm Beach Florida 33411

Telephone Number:

561-818-3228

Fax Number:

561-844-2967

Contact Name and e-mail address:

Jeffrey Holst - Senior Vice President

jeff@fldrilling.com

Bidder's License No.:

CGC1522104

(where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.



VILLAGE OF PALM SPRINGS, PALM SPRINGS, FL
ITB NO. 2024B-014
MAIN AND RL PRATT WTPs AMMONIA SYSTEM IMPROVEMENTS

ADVERTISEMENT FOR BIDS

Sealed Bids for the construction of the **Main And RL Pratt WTPs Ammonia System Improvements, 2024B-014** must be received, by the **Village of Palm Springs**, at the office of the **Palm Springs Village Clerk via online submission on Demandstar.com**, until **2:00 PM** local time on **Thursday, August 22nd, 2024**. At **2:30 PM** all Bids received will be publicly opened and read. The Project consists of constructing flow-paced ammonia feed control systems, thermal mass flow meters & controllers, chlorine and monochloramine analyzers, pumps, valves, piping, injection assemblies, instrumentation, wiring, conduit and any other items as depicted in project documents to provide a complete and functional ammonia feed system for the Main and RL Pratt WTPs. Work in this contract also includes demolition of the existing ammonia feed system downstream from ammonia chemical supply tank, upon successful startup and Owner acceptance of new facilities.

Bidding Documents may be viewed and downloaded online www.vpsfl.org or <http://www.demandstar.com>. Bidders must submit their responses electronically via DemandStar – <http://www.demandstar.com>.

A virtual pre-bid conference will be held at **2:00 PM** local time on **Monday, August, 12, 2024**, via Microsoft Teams. Attendance at the pre-bid conference **is not** mandatory.

Non-Mandatory Pre-Bid Conference - Monday, August, 12th, 2024 at 2:00 PM

Participants can use their telephone or computer mic & speakers (VoIP)

- Registration: <https://events.gcc.teams.microsoft.com/event/1e42ed83-644f-4d68-aeff-8f841b056c82@20801dc8-57d4-4c4b-b981-92be4d50e21c>
 - Meeting ID: 295 263 122 794
 - Passcode: B24sqA

Bid Opening - Thursday, August 22nd, 2024 at 2:30 PM

Participants can use their telephone or computer mic & speakers (VoIP)

- Registration: <https://events.gcc.teams.microsoft.com/event/ea3607aa-22d8-40e1-97f1-55b016454d98@20801dc8-57d4-4c4b-b981-92be4d50e21c>
 - Meeting ID: 276 269 618 723
 - Passcode: p3qvvi

Bid security shall be furnished in accordance with the Instructions to Bidders.

Any questions regarding the specifications and Solicitation process must be submitted in writing to the Procurement Specialist at procurement@vpsfl.org. Questions and requests for clarification and additional information must be received prior to the Deadline for Submission of Questions on **Friday August 16 , 2024** AT 5:00 PM local time.

Pursuant to Section 2-355 of Palm Beach County Ordinance No. 2011-039, and the purchasing policies of the Village of Palm Springs, all Solicitations, once advertised, are under the “Cone of Silence” until the appropriate authority has approved an award recommendation, rejected all responses or some other action by the Village to end the selection process. This limits and requires documentation of

communications between potential Bidders and/or Bidders on Village Solicitations, the Village's professional staff, and the Village Council members.

Owner: **Village of Palm Springs**

Date: Thursday, August 1, 2024

Publication: Lake Worth Herald, DemandStar, and Village of Palm Springs website

+ + END OF ADVERTISEMENT FOR BIDS + +

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

ITEM NO.	ITEM	QTY	UNIT PRICE (\$)	UNIT	TOTAL (\$)
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4	Main WTP Contingency/Allowance	1	\$ 75,000.00	LS	\$ 75,000.00
5	RL Pratt WTP Anhydrous Ammonia System	1	364,500.00	LS	364,500.00
6	RL Pratt Contingency/Allowance	1	\$ 50,000.00	LS	\$ 50,000.00

Total of All Lump Sums \$ 984,400.00
Nine hundred eighty four thousand four hundred dollars and zero cents

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- 6.01 Bidder agrees that the Work will be substantially complete within 240 calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 300 calendar days after the date when the Contract Times commence to run.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. List of Proposed Suppliers;
 - D. List of Project References;
 - E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - F. Contractor's License No.: CGC1522104 [or] Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
 - G. Required Bidder Qualification Statement with supporting data; and

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

Florida Design Drilling LLC

By:

[Signature]



[Printed name]

Jeffrey Holst - Senior Vice President

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature]



[Printed name]

Fernanda Sousa

Title:

Project Engineer

Submittal Date:

August 27, 2024

Address for giving notices:

7733 Hooper Road, West Palm Beach Florida 33411

Telephone Number:

561-818-3228

Fax Number:

561-844-2967

Contact Name and e-mail address:

Jeffrey Holst - Senior Vice President

jeff@fldrilling.com

Bidder's License No.:

CGC1522104

(where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.



ITB NO. 2024B-015

MAIN AND RL PRATT WTPs AMMONIA SYSTEM IMPROVEMENTS

E-BID OPENING - August 29, 2024



Staff Present:

Andrew Klausner, Project Specialist
Kimberly Wynn, Village Clerk

Meeting Start: 2:30 PM

Meeting End:

NAME	Email	ADDRESS	Lump Sum
Lawrence Lee Construction Services, Inc.	GS@LAWRENCELEECONSTRUCTION.COM	800 SE Lincoln Avenue Stuart, Florida 34994	\$1,304,000.00
Florida Design Drilling LLC	jeff@fldrilling.com	7733 Hooper Road West Palm Beach, Florida 33411	\$984,400.00



September 5, 2024

Andrew Klausner
Project Coordinator
Village of Palm Springs
226 Cypress Lane
Palm Springs, Florida 33461

RE: Main and RL Pratt WTPs Ammonia System Improvements
Bid Number: 2024B-014
KHA Bid Review

Andrew,

The Village of Palm Springs publicly advertised the bid documents for the Main and RL Pratt WTPs Ammonia System Improvements project on August 2nd, 2024, and scheduled a non-mandatory pre-bid meeting, which was held virtually on August 12th, 2024, to discuss the project with potential bidders. On August 14th, 2024, a non-mandatory pre-bid walk through was hosted by Village staff. A total of two (2) addenda were issued as part of this project. On August 29th, 2024, bids were publicly opened and read. The Village of Palm Springs provided Kimley-Horn with electronic copies of the two (2) bids received. A bid tabulation was prepared by Kimley-Horn that includes the summary of the total bid amounts received. The bid amounts for this project are as follows:

BID ITEM	ITEM OF WORK	QTY.	UNIT	Lawrence Lee Construction Services, Inc.	Florida Design Drilling, LLC	Engineer's Opinion of Probable Construction Costs
1	Mobilization and Demobilization (10%)	1	LS	\$100,000.00	\$74,000.00	\$85,830.00
2	Bonds and Insurance	1	LS	\$65,000.00	\$58,400.00	\$12,874.50
3	Main WTP Anhydrous Ammonia System	1	LS	\$502,000.00	\$362,500.00	\$391,000.00
4	Main WTP Contingency/Allowance	1	LS	\$75,000.00	\$75,000.00	\$43,700.00
5	RL Pratt WTP Anhydrous Ammonia System	1	LS	\$512,000.00	\$364,500.00	\$381,000.00
6	RL Pratt Contingency/Allowance	1	LS	\$50,000.00	\$50,000.00	\$42,600.00
TOTAL BID				\$1,304,000.00	\$984,400.00	\$957,004.50

As shown, there were two (2) bidders and Lawrence Lee Construction Services, Inc. and Florida Design Drilling, LLC. Both bidders are reputable contractors in Southeast Florida, having extensive experience in similar water plant and chemical system related projects. Kimley-Horn reviewed the bids for completeness with respect to the lowest bid amount, most responsive, and most responsible bidder. All bid packages were provided by Palm Springs and reviewed by Kimley-Horn. The results of our review are as follows:

- No math errors were found in either of the bids reviewed

- Both bidders acknowledged the two (2) addendum that were issued
- Lawrence Lee's bid was approximately 33% higher than the apparent low bidder, Florida Design Drilling
- Upon review of the bid package, it was found that Florida Design Drilling, LLC has submitted the documentation requested with the lowest bid price.
- The Engineer's Opinion of Probable Construction Costs (OPCC) with contingency was 2.8% lower than the lowest bid amount received

Based on our review of the two bids received, we see no reason the Village of Palm Springs should not award this project to Florida Design Drilling, LLC. Based on the results of our review, Florida Design Drilling, LLC submitted the lowest, most responsive and responsible bid for the project. Should you have any questions or comments, please do not hesitate to contact this office at (561) 421-1979.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Nick Black, P.E.

Attachment: Bid documents
Cc: Kimberly Wynn (VPS)
Paul Ward (VPS)
David Burgin (VPS)

K:\WPB_Civil\140593011 - VPS PRATT WTP AMMONIA\Bid Phase\BIDS\Ammonia Bids\RFB 2024B-014 - KHA Bid Review.docx

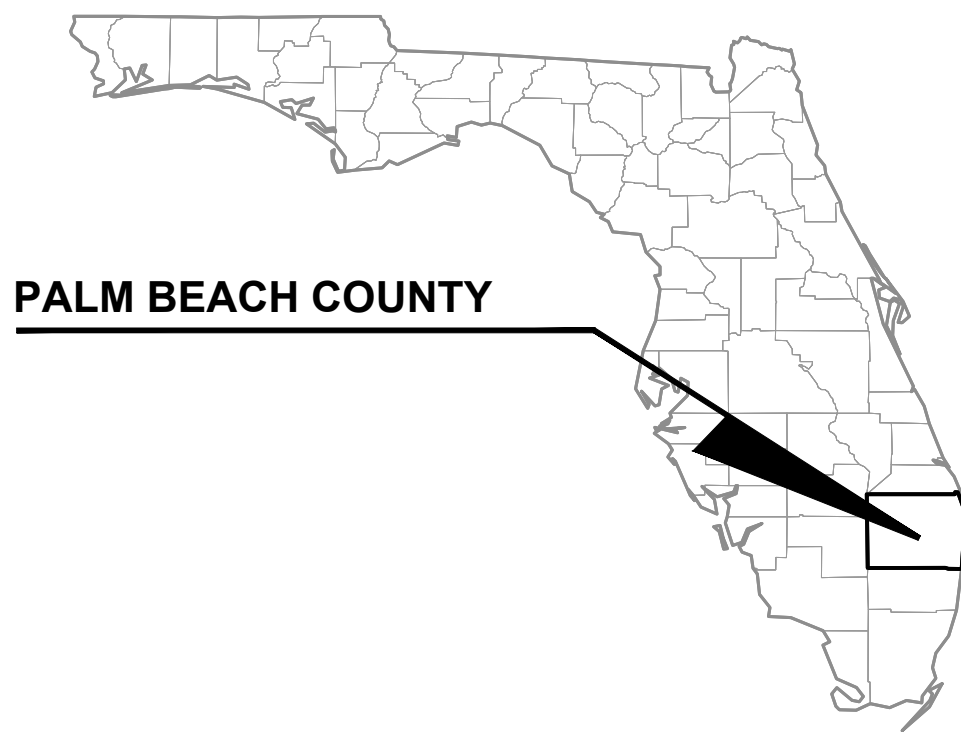
Plotted By: Corriu, Daniel Sheet Set: Main WTP Ammonia Feed System Improvements Layout: G-1 COVER SHEET July 01, 2024 10:22:47am K:\wpb_civil\140593012 - vps_main_wtp_ammonia\CAD\plansheets\G-1 COVER SHEET.dwg
This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of any improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

MAIN WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR

VILLAGE OF PALM SPRINGS

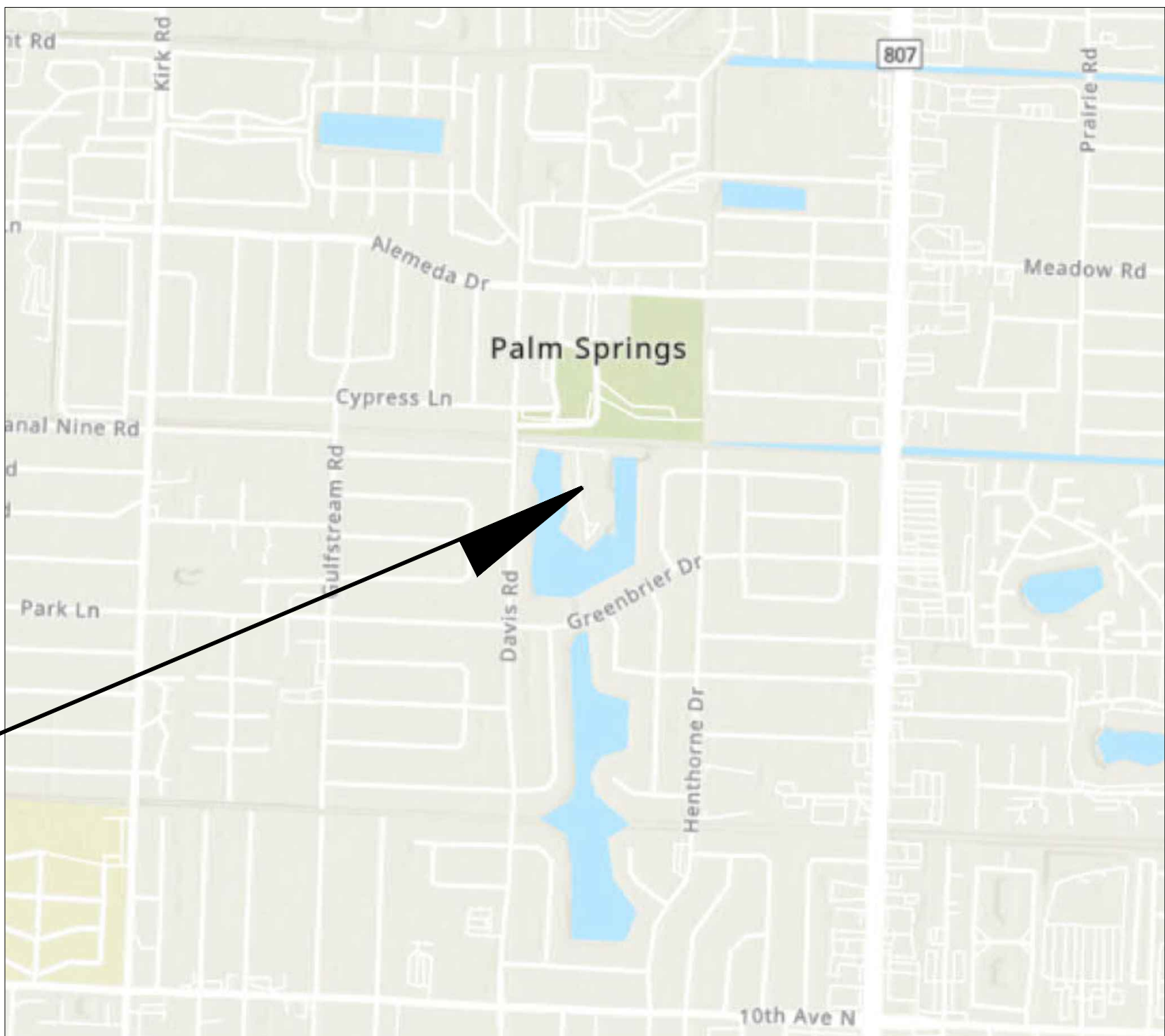
JUNE 2024



VICINITY MAP
N.T.S. or AS NOTED

PROJECT LOCATION

VPS MAIN WTP
360 DAVIS ROAD
PALM SPRINGS, 33461



LOCATION MAP
N.T.S. or AS NOTED

VILLAGE COUNCIL

MAYOR	BEV SMITH
VICE MAYOR	JONI BRINKMAN
MAYOR PRO TEM	PATTI WALLER
COUNCIL MEMBER	GARY M. READY
COUNCIL MEMBER	KIM SCHMITZ
VILLAGE MANAGER	MICHAEL BORNSTEIN
ASSISTANT VILLAGE MANAGER	KIM GLAS-CASTRO
UTILITY DIRECTOR	JIMMIE JOHNSON
ASSISTANT UTILITIES DIRECTOR	PAUL WARD

SHEET LIST	
Sheet Number	Sheet Title
1	COVER SHEET
2	SITE PLAN
3	YARD PIPING IMPROVEMENTS PLAN
4	AMMONIA SYSTEM IMPROVEMENTS PLAN
5	AMMONIA FEED SECTION AND DETAILS
6	AMMONIA SYSTEM PHOTO DETAILS
7	AMMONIA SYSTEM PHOTO DETAILS
8	CONSTRUCTION DETAILS
9	CONSTRUCTION DETAILS CONT.
10	P&ID ABBREVIATIONS AND SYMBOLS
11	AMMONIA FEED SYSTEM AND RESIDUAL MONITORING P&ID
12	ELECTRICAL NOTES & LEGEND
13	ELECTRICAL SITE PLAN
14	AMMONIA SYSTEM IMPROVEMENTS ELECTRICAL SITE PLAN
15	ELECTRICAL POWER & CONTROLS RISER DIAGRAM
16	AMMONIA FEED SYSTEM P&ID CONDUIT TAGS
17	AMMONIA FEED CONTROL PANEL SCHEMATICS
18	AMMONIA FEED CONTROL PANEL DETAILS
19	ELECTRICAL DETAILS

BID SUBMITTAL

NOT FOR CONSTRUCTION

No.	REVISIONS	DATE	BY

Kimley»Horn

© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY SUITE 200, WEST PALM BEACH, FL 33411
PHONE: 561-845-0665 FAX: 561-863-8175
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT
140593012

DATE
JUN 2024

SCALE AS SHOWN

DESIGNED BY NPOB

DRAWN BY MM

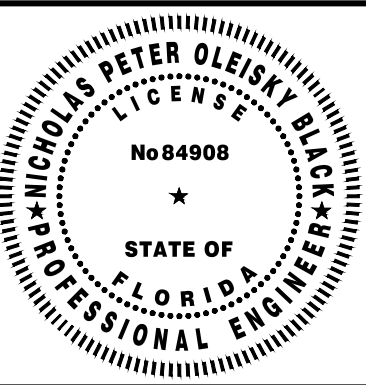
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MAIN WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR

VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY FLORIDA



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ON THE DATE ADJACENT TO THE SEAL

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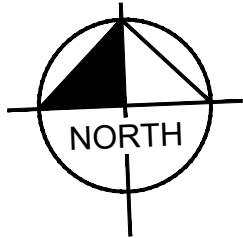
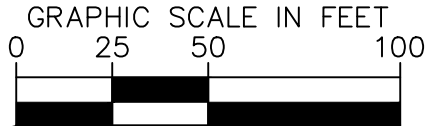
G-1

1 OF 19

Plotted By: Corriu, Daniel Sheet Set: Main WTP Ammonia Feed System Improvements Layout: C-1 SITE PLAN July 01, 2024 10:23:00am K:\web_civil\140593012 - vps_main_wtp_ammonia\CAD\plansheets\C-1 SITE PLAN.dwg This document together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



SITE KEY MAP
Scale: 1" = 50'



GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WORK WITH THE OWNER AND PROVIDE 48-HOURS NOTICE PRIOR TO DEMOLITION.
2. CONTRACTOR SHALL CONFIRM SIZE, MATERIAL, AND LOCATION OF ALL MECHANICAL EQUIPMENT AND FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS TO ACCOMMODATE PROPOSED EQUIPMENT, INCLUDING VERIFICATION OF ALL EXISTING ELECTRICAL SERVICES IN THE FIELD AND WITH THE ELECTRICAL UTILITY COMPANY (TYP.)
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS AND CONSTRUCTION.
4. CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES AND SHALL PROTECT AND MAINTAIN THE INTEGRITY OF ANY AND ALL EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE EXISTING UTILITIES. CONTRACTOR WILL BE REQUIRED TO REPAIR/REPLACE ANY DAMAGED UTILITIES TO OWNERS SATISFACTION.
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KHA PROJECT
140593012

DATE
JUN 2024

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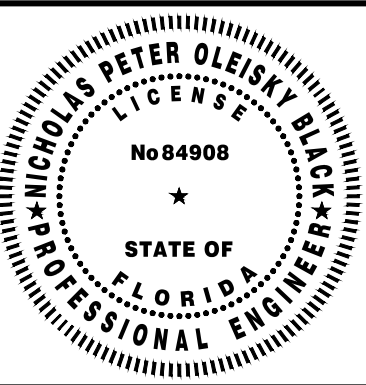
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MAIN WTP AMMONIA FEED
SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY FLORIDA



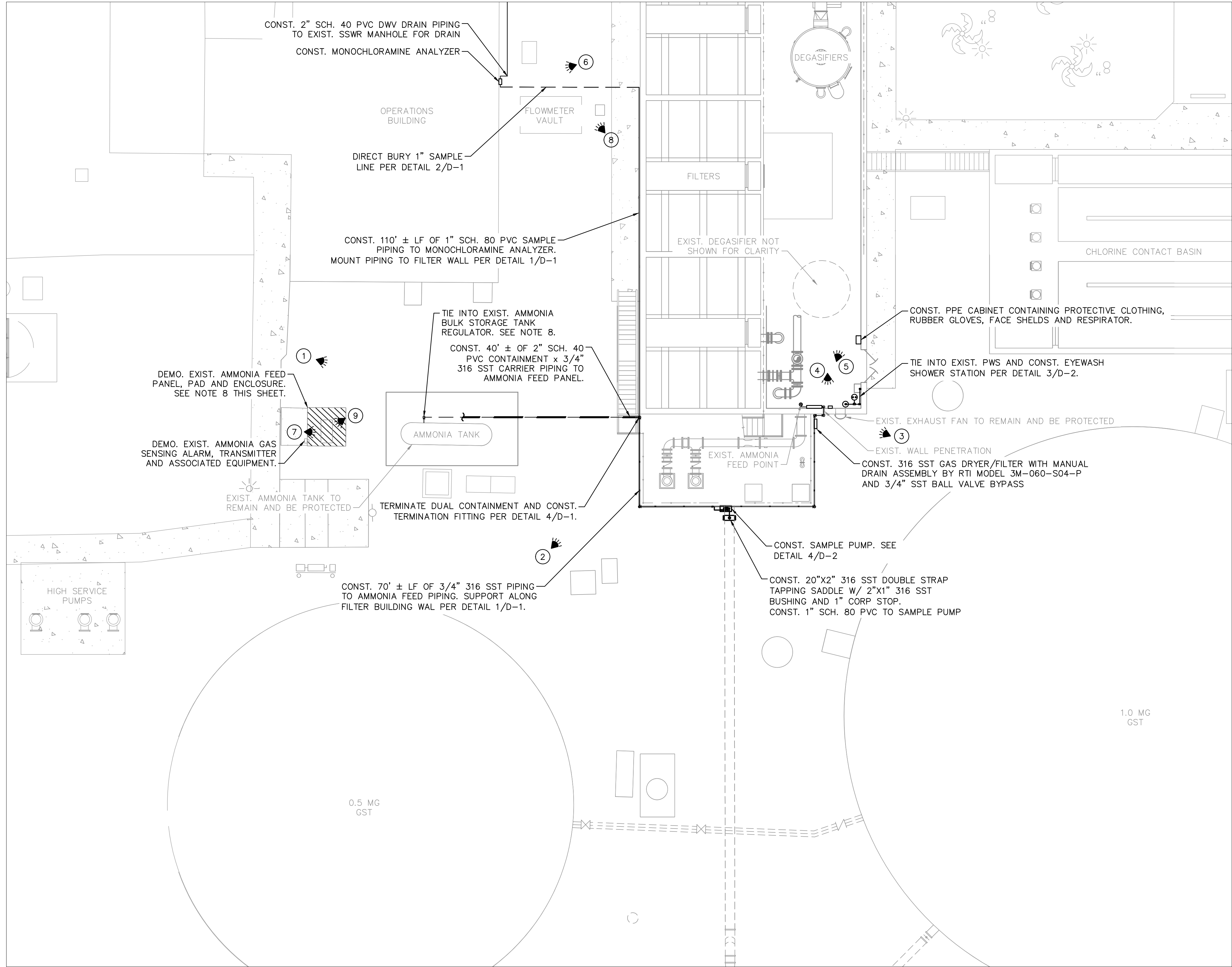
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SITE PLAN

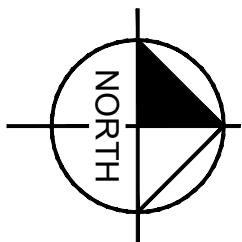
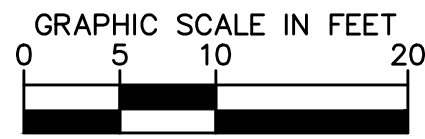
ON THE DATE ADJACENT TO THE SEAL

SHEET NUMBER
C-1
2 OF 19

Plotted By: Corriu, Daniel Sheet Set: Main WTP Ammonia Feed System Improvements Layout: C-2 YARD PIPING IMPROVEMENTS PLAN July 03, 2024 12:35:55pm K:\WPB_Civil\140593012 - VPS MAIN WTP AMMONIA CAD\Plansheets\C-2 PRETREATMENT BUILDING.dwg
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YARD PIPING IMPROVEMENTS PLAN
Scale: 1" = 10'

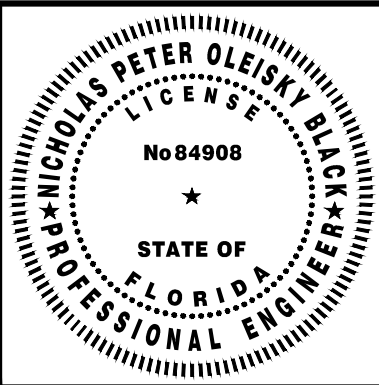


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**MAIN WTP AMMONIA FEED
SYSTEM IMPROVEMENTS**
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA



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**YARD PIPING IMPROVEMENTS
PLAN**
ON THE DATE ADJACENT TO THE SEAL.

SHEET NUMBER
C-2
3 OF 19

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ALL MATERIALS DEMOLISHED SHALL BE DISPOSED OF LEGALLY OFF-SITE
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9. PIPE LABELS SHALL BE USED FOR ALL ABOVE GRADE AMMONIA PIPING.

LEGEND:

- ① PHOTO DETAIL #1 SHEET C-5
- ② PHOTO DETAIL #2 SHEET C-5
- ③ PHOTO DETAIL #3 SHEET C-5
- ④ PHOTO DETAIL #4 SHEET C-5
- ⑤ PHOTO DETAIL #5 SHEET C-5
- ⑥ PHOTO DETAIL #6 SHEET C-6
- ⑦ PHOTO DETAIL #7 SHEET C-6
- ⑧ PHOTO DETAIL #8 SHEET C-6
- ⑨ PHOTO DETAIL #9 SHEET C-6

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Plotted By: Corriu, Daniel Sheet Set: Main WTP Ammonia Feed System Improvements Layout: C-3 AMMONIA SYSTEM IMPROVEMENTS PLAN July 01, 2024 10:23:28am K:\web_civil\140593012 - vps main wtp ammonia_cad\plansheets\C-3 AMMONIA SYSTEM IMPROVEMENTS PLAN.dwg
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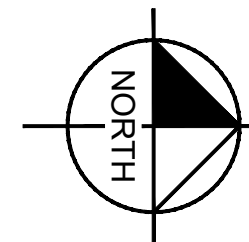
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AMMONIA SYSTEM IMPROVEMENTS PLAN

24x36 SHEET SIZE: $\frac{3}{8}" = 1'-0"$
11x17 SHEET SIZE: $\frac{3}{16}" = 1'-0"$

0 1 2 3 4
SCALE FEET



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KHA PROJECT
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DATE
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SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
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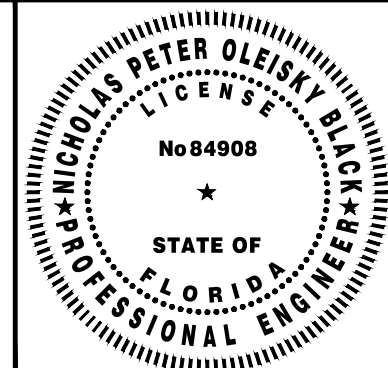
MAIN WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR

VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA



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AMMONIA SYSTEM IMPROVEMENTS PLAN

ON THE DATE ADJACENT TO THE SEAL

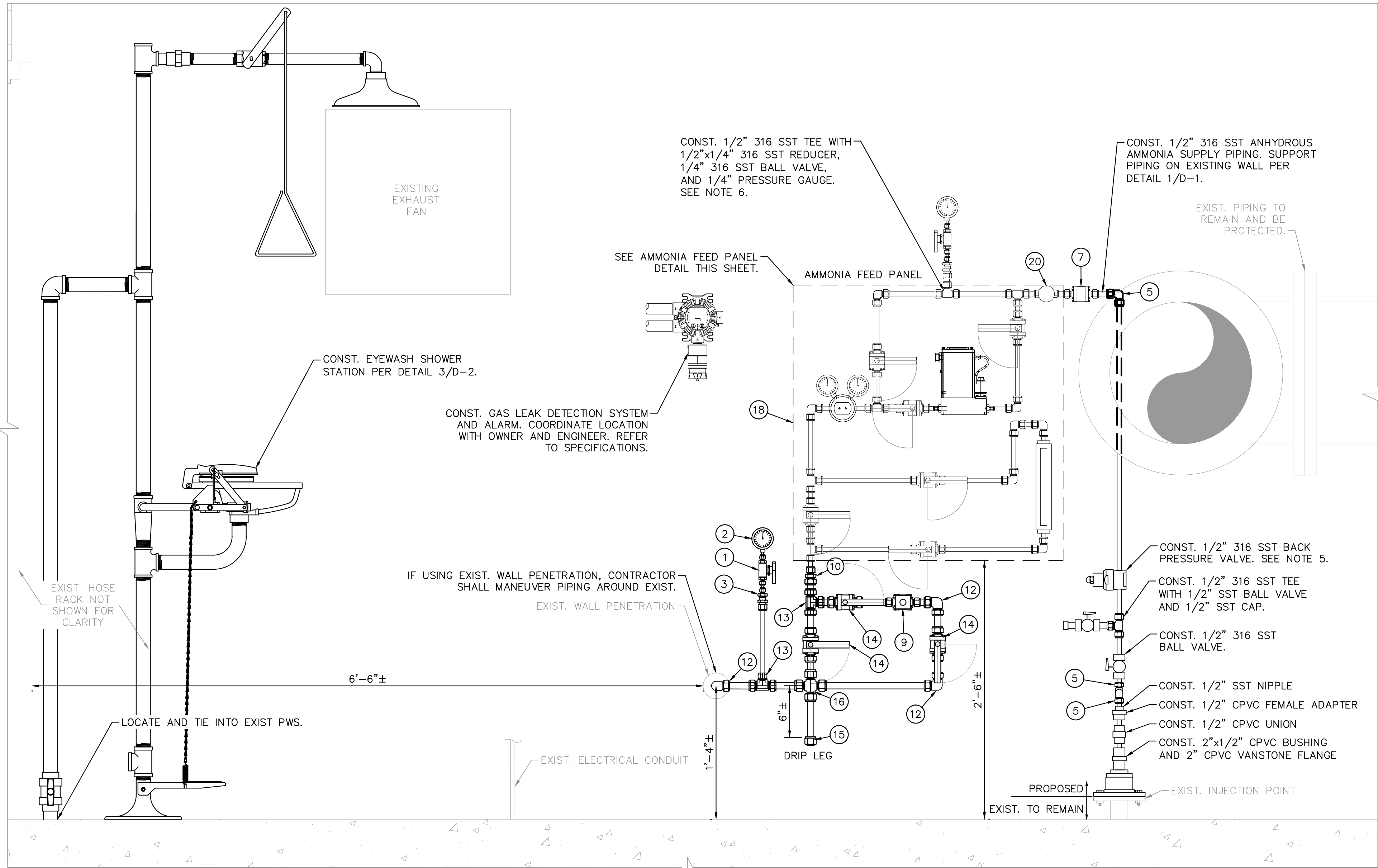
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4 OF 19

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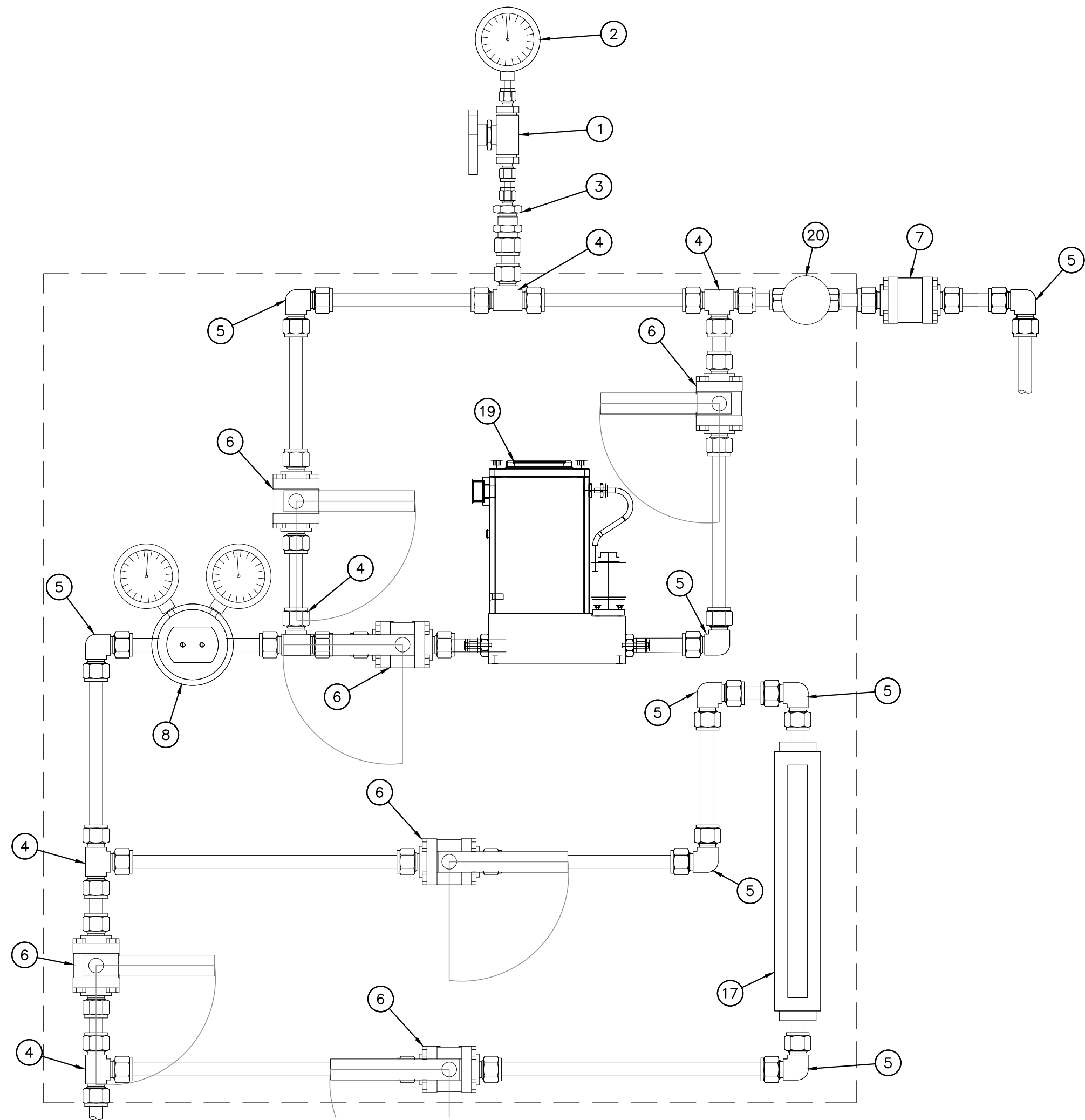
Plotted By: Corriu, Daniel Sheet Set: Main WTP Ammonia Feed System Improvements Layout: C-4 AMMONIA FEED SECTION AND DETAILS
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K:\web_civil\140593012 - vps main wtp ammonia\CAD\plotsheets\C-4 AMMONIA FEED SECTION AND DETAILS.dwg July 01, 2024 10:23:53am



1 **AMMONIA FEED ROOM SECTION**
24x36 SHEET SIZE: 1 1/2" = 1'-0"
11x17 SHEET SIZE: 3/4" = 1'-0"
0 1/4 1/2 3/4 1
SCALE FEET

GENERAL NOTES

- ALL TUBING SHALL BE 1/2" OR 3/4" (AS SHOWN ON DRAWINGS) BY 0.083 WALL STAINLESS STEEL TUBING, ASTM A213, SEAMLESS TYPE 316 WITH SWAGelok STYLE COMPRESSION FITTINGS (TYP.). FULL STICK TUBING TO BE AS LONG AS POSSIBLE TO MINIMIZE JOINTS AND FITTINGS (TYP.).
- AMMONIA GAS ROTAMETER TO BE GLASS TUBE VARIABLE AREA FLOW METER. SEE SPECIFICATIONS FOR MAKE AND MODEL NUMBER.
- SOLENOIDS TO BE 1/2-INCH ELECTRONIC SOLENOID SUITABLE FOR ANHYDROUS AMMONIA GAS, NORMALLY CLOSED ENERGIZE TO OPEN ASCO SERIES 8210, 120 VAC (60 Hz), 2 WAY VALVE, MANUFACTURED OF 304 STAINLESS STEEL.
- ISOLATION VALVES TO BE SWAGelok, ALL 316 SST MATERIAL WITH UHMWPE PACKING AND EPDM SEALS.
- INSTALL 1/4" 316 SST BACK PRESSURE VALVE BY SWAGelok MODEL NO. KBP1F0A4B5A30000. PROVIDE 1/2"x3/4" 316 SST REDUCERS ON EACH SIDE OF BACK PRESSURE VALVE.
- INSTALL 1/4" 316 SST PRESSURE GAUGE BY SWAGelok PGI SERIES. (0-100PSI)
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
- EXISTING AMMONIA FEED MUST REMAIN IN SERVICE AT ALL TIMES. COORDINATE WITH OWNER ALL CUT-INS WHICH REQUIRE AMMONIA SERVICE INTERRUPTION.
- CONTRACTOR SHALL UTILIZE BROOKS SLAMF50F AND MODEL 0254 DISPLAY FOR AMMONIA CONTROL, SEE SPECIFICATIONS,
- PIPE LABELS SHALL BE USED FOR ALL ABOVE GRADE AMMONIA PIPING.
- CONTRACTOR SHALL UTILIZE ULTIMA X5000 GAS MONITOR BY MSA OR APPROVED EQUAL.



AMMONIA FEED PANEL DETAIL

MATERIAL LIST (TYP.)

- INSTALL 1/4" 316 SST BALL VALVE
- INSTALL 1/4" 316 SST PRESSURE GAUGE BY SWAGelok PGI SERIES. (0-100PSI)
- INSTALL 1/2" X 1/4" 316 SST REDUCING COUPLING
- INSTALL 1/2" 316 SST TEE
- INSTALL 1/2" 316 SST 90 BEND
- INSTALL 1/2" 316 SST BALL VALVE
- INSTALL 1/2" 316 SST INLINE BALL CHECK VALVE
- INSTALL 1/2" 316 SST PRESSURE REGULATOR BY SWAGelok MODEL NO. KHFFFM818A20000 W/(2) 316 SST 1/4" PRESSURE GAUGE ASSEMBLIES (0-100 PSI) AND (0-100 PSI)
- INSTALL 3/4" 316 SST SOLENOID ACTUATED BALVE
- INSTALL 3/4" X 1/2" 316 SST REDUCING COUPLING
- INSTALL 3/4" X 1/2" 316 SST REDUCING TEE
- INSTALL 3/4" 316 SST 90 BEND
- INSTALL 3/4" 316 SST TEE
- INSTALL 3/4" 316 SST BALL VALVE
- INSTALL 3/4" 316 SST CAP
- INSTALL 3/4" 316 SST CROSS
- INSTALL GLASS TUBE VARIABLE AREA ROTAMETER. SEE NOTE 2.
- INSTALL 2'-6"x2'-6"(±)x3/4" THICK HIGH DENSITY POLYETHYLENE PANEL BOARD. SECURE TO WALL WITH 1/2" 316 SST TAPCONS. PIPING SHALL BE STRAPPED/SUPPORTED WITH 316 SST HARDWARE.
- INSTALL MASS FLOW CONTROLLER. SEE SPECIFICATIONS.
- INSTALL 1/2" 316 SST NEEDLE VALVE.

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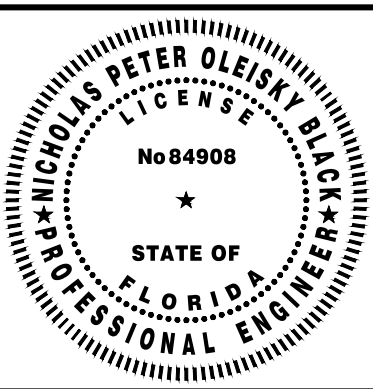
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KHA PROJECT
140593012
DATE
JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

**MAIN WTP AMMONIA FEED
SYSTEM IMPROVEMENTS**
PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA



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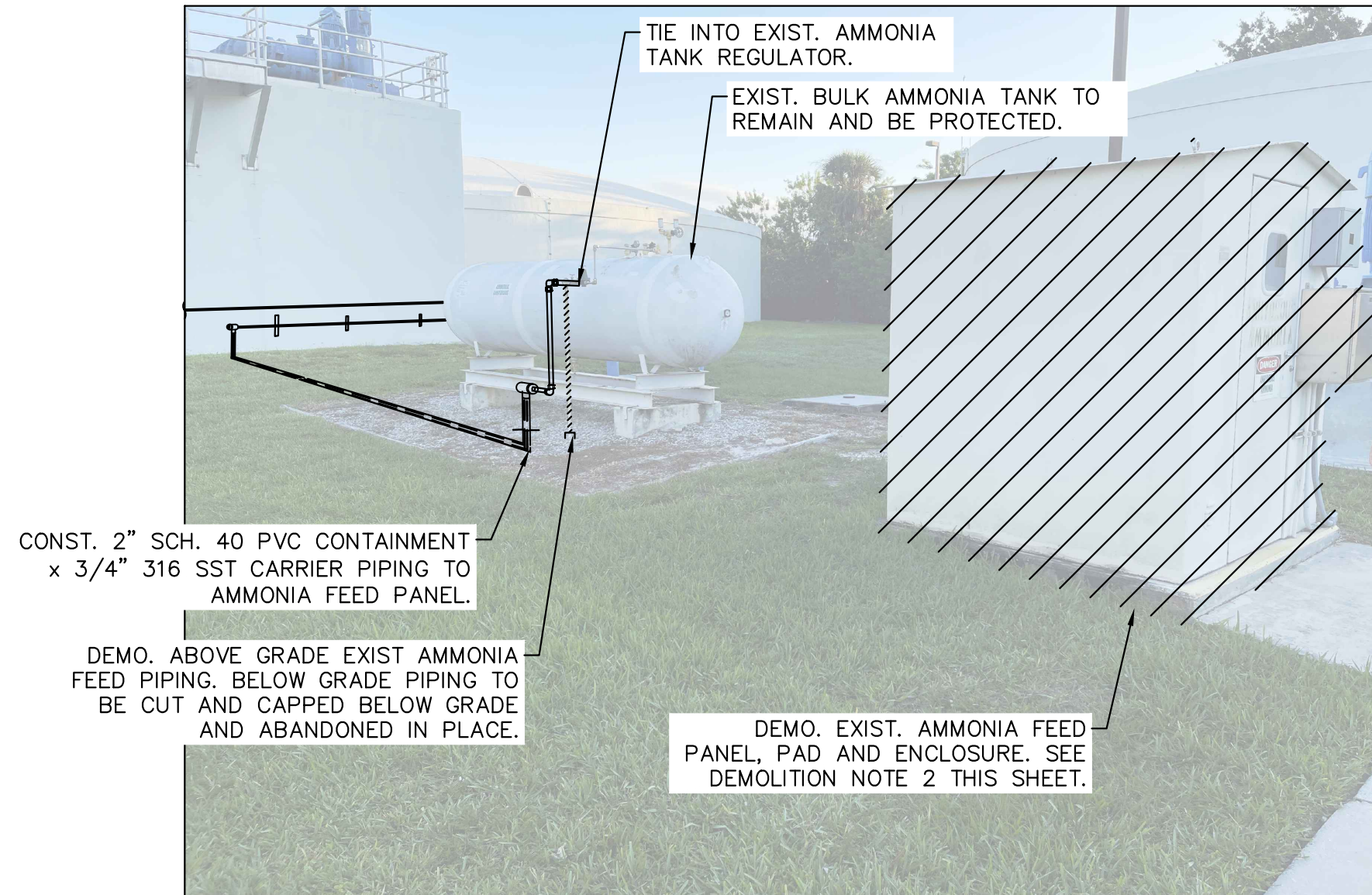
**AMMONIA FEED SECTION AND
DETAILS**

ON THE DATE ADJACENT TO THE SEAL

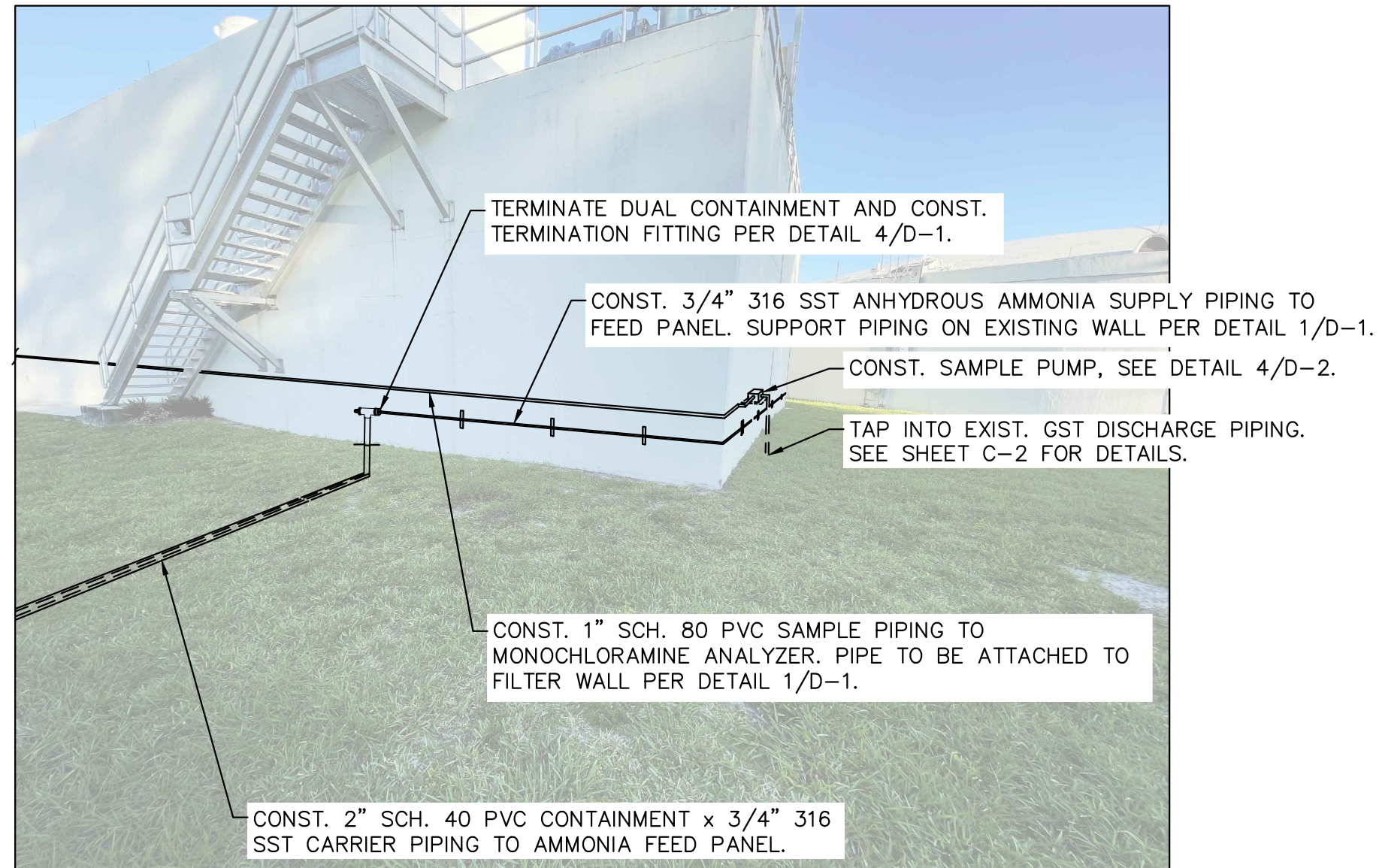
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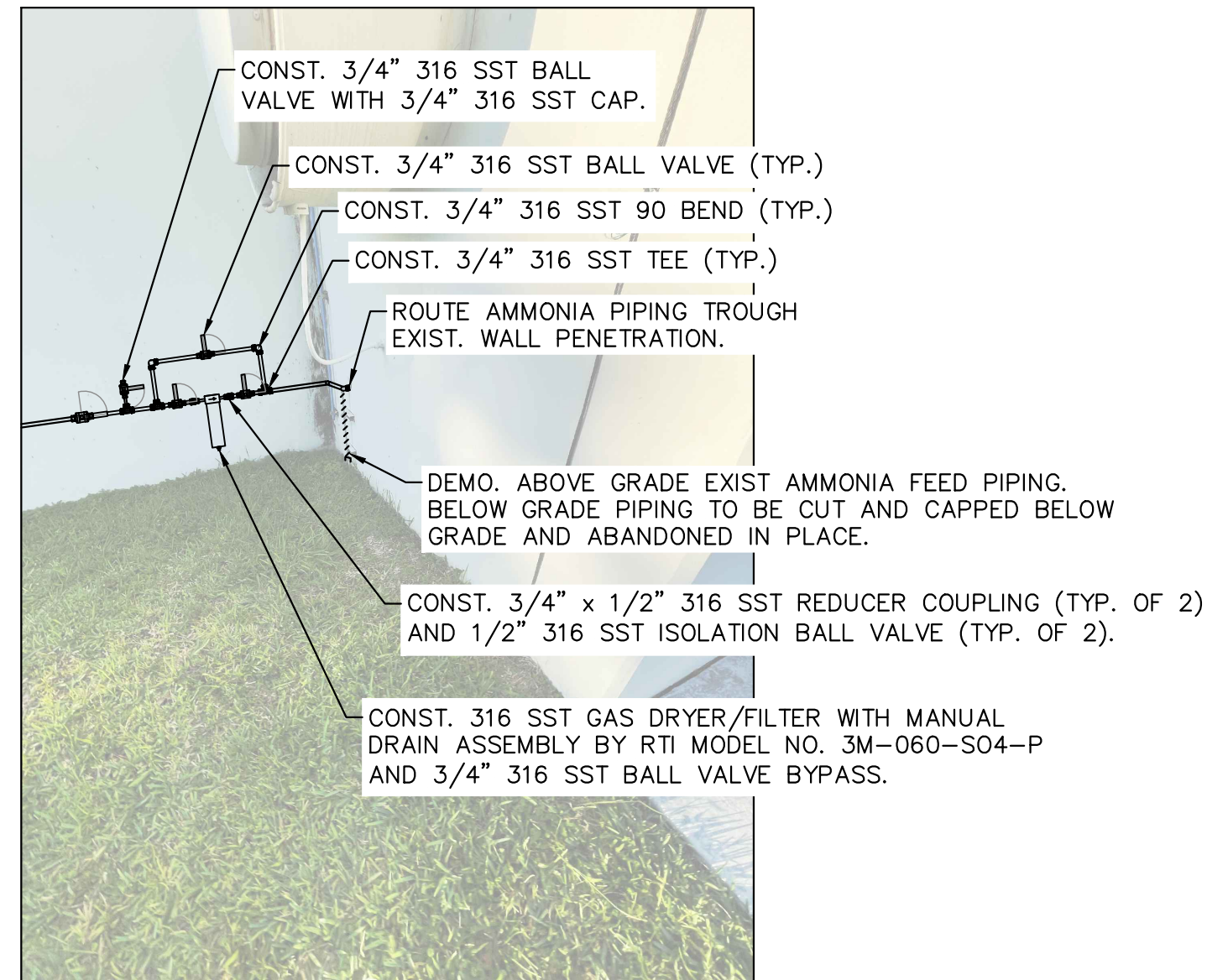
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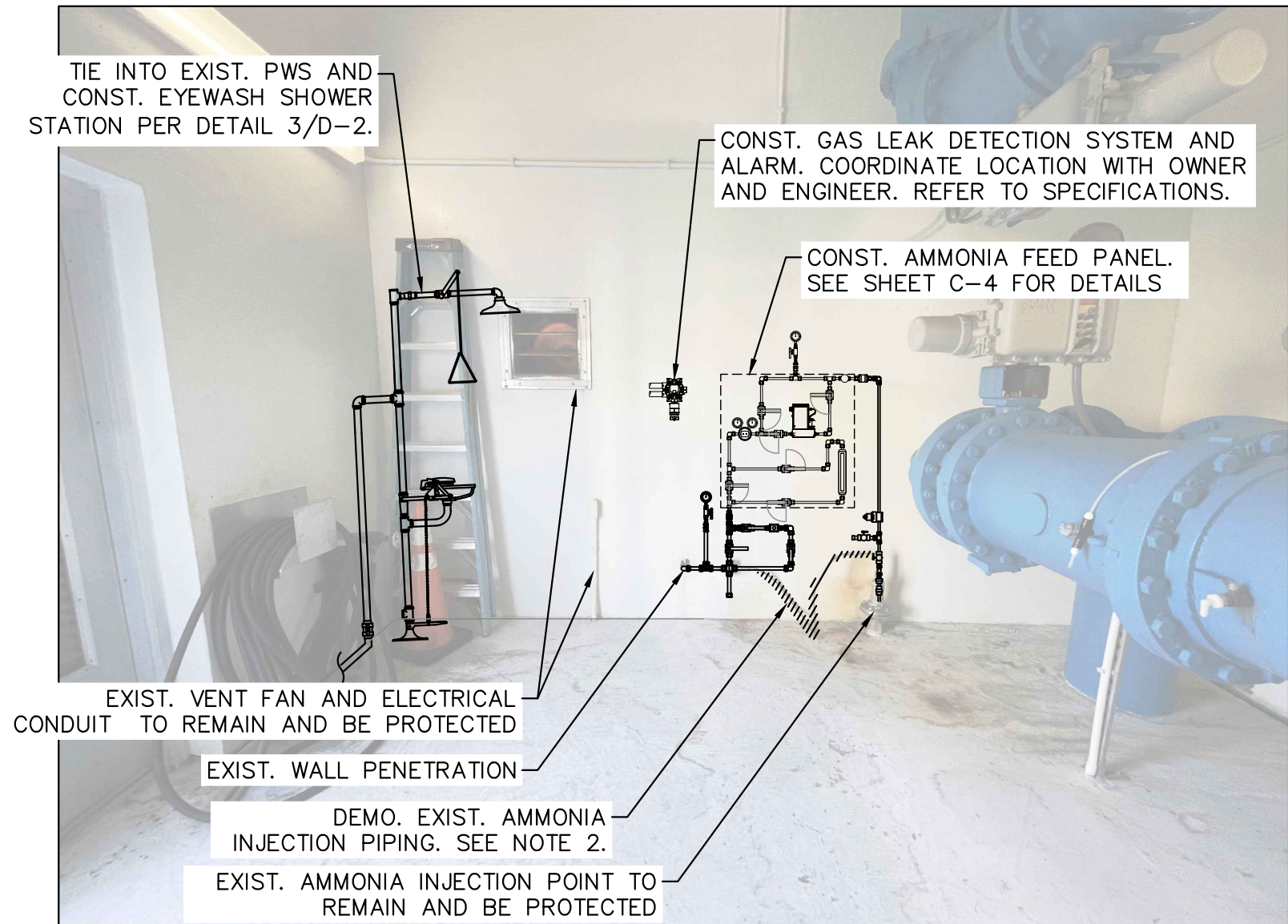
1 PHOTO DETAIL 1
C-5 Scale: N.T.S.



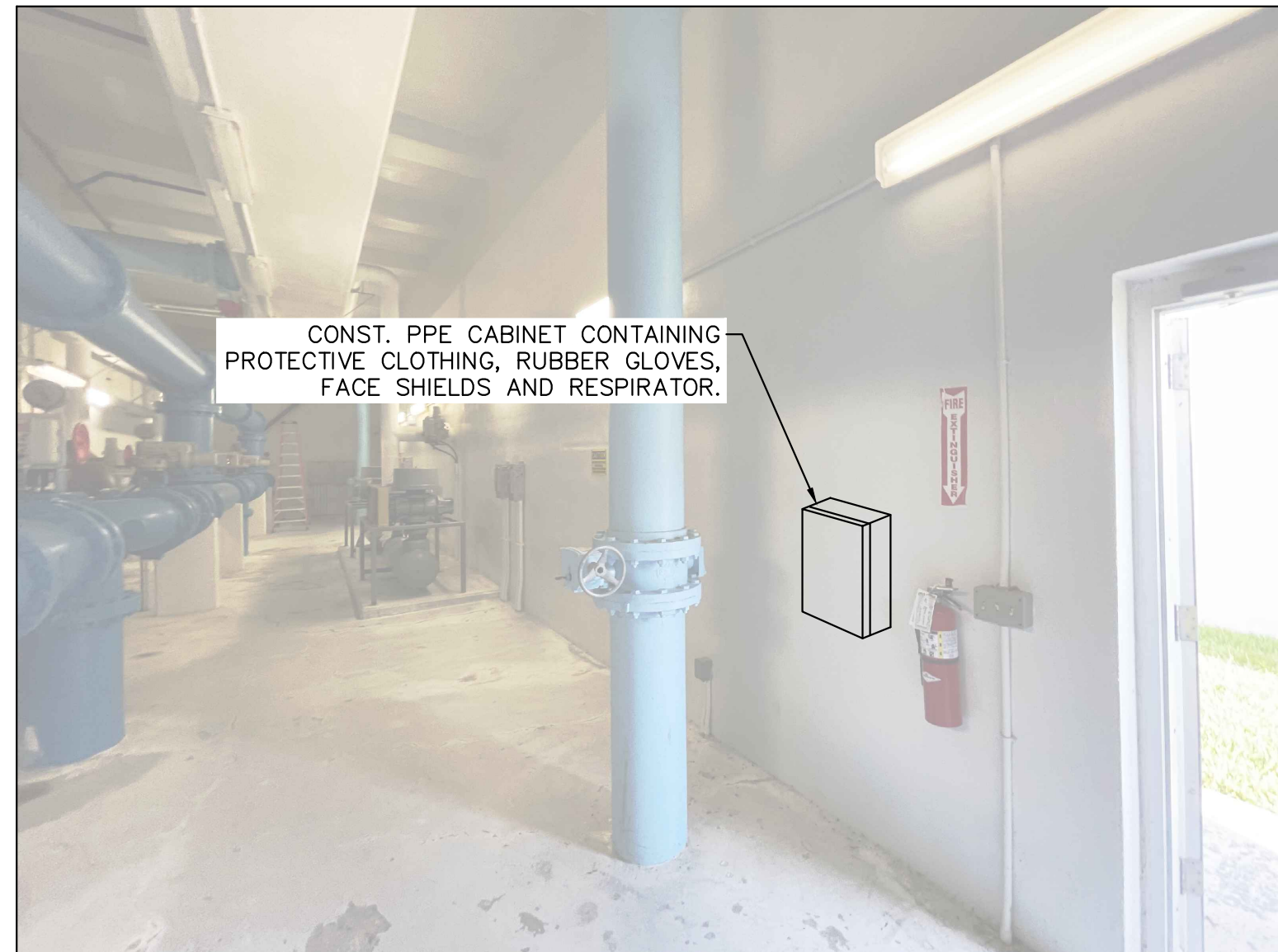
2 PHOTO DETAIL 2
C-5 Scale: N.T.S.



3 PHOTO DETAIL 3
C-5 Scale: N.T.S.



4 PHOTO DETAIL 4
C-5 Scale: N.T.S.



5 PHOTO DETAIL 5
C-5 Scale: N.T.S.

GENERAL NOTES:

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DEMOLITION NOTES:

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3. COORDINATE WITH OWNER FOR ITEMS TO BE RETURNED AFTER DEMOLITION. OWNER RESERVES THE RIGHT TO DESIGNATE ANY ITEMS FOR SALVAGE.
4. ALL DEMOLISHED MATERIALS ARE TO BE DISPOSED OF LEGALLY OFF SITE.
5. CONTRACTOR SHALL DEMOLISH ALL EXISTING CONDUITS, PIPING, AND PIPING SUPPORTS THAT MAY NOT BE SHOWN OR NOTED ON PLANS.
6. CONTRACTOR SHALL GROUT FILL MOUNTING HOLES LEFT BY EXISTING PIPING SUPPORTS AND PAINT TO MATCH.

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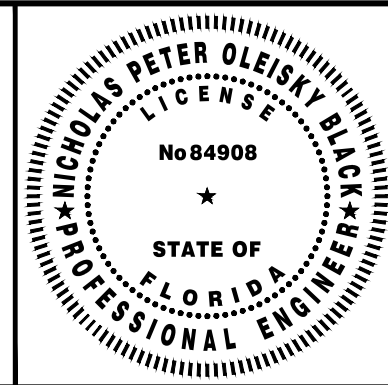
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DATE JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

MAIN WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS



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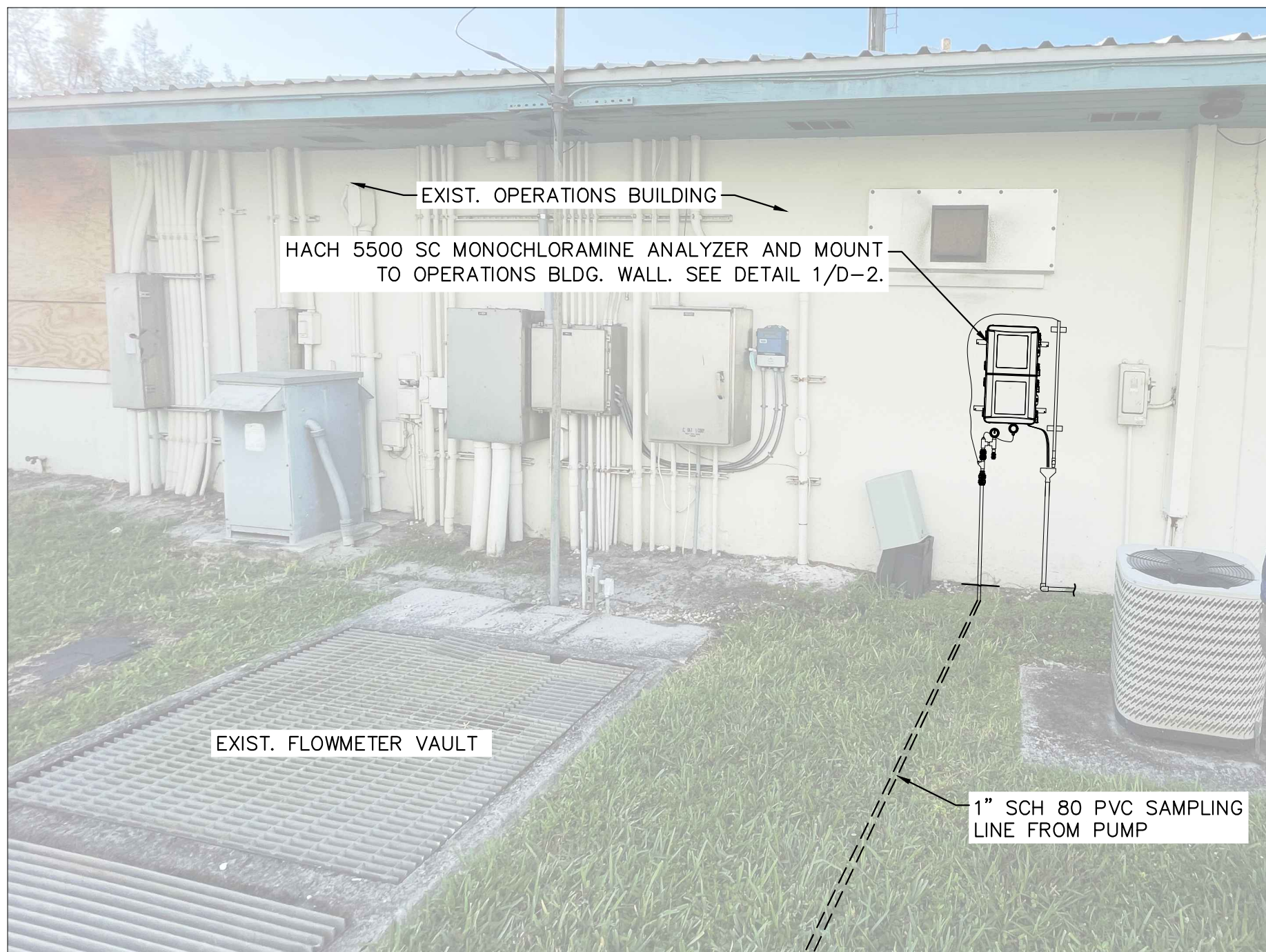
AMMONIA SYSTEM PHOTO DETAILS

ON THE DATE ADJACENT TO THE SEAL.

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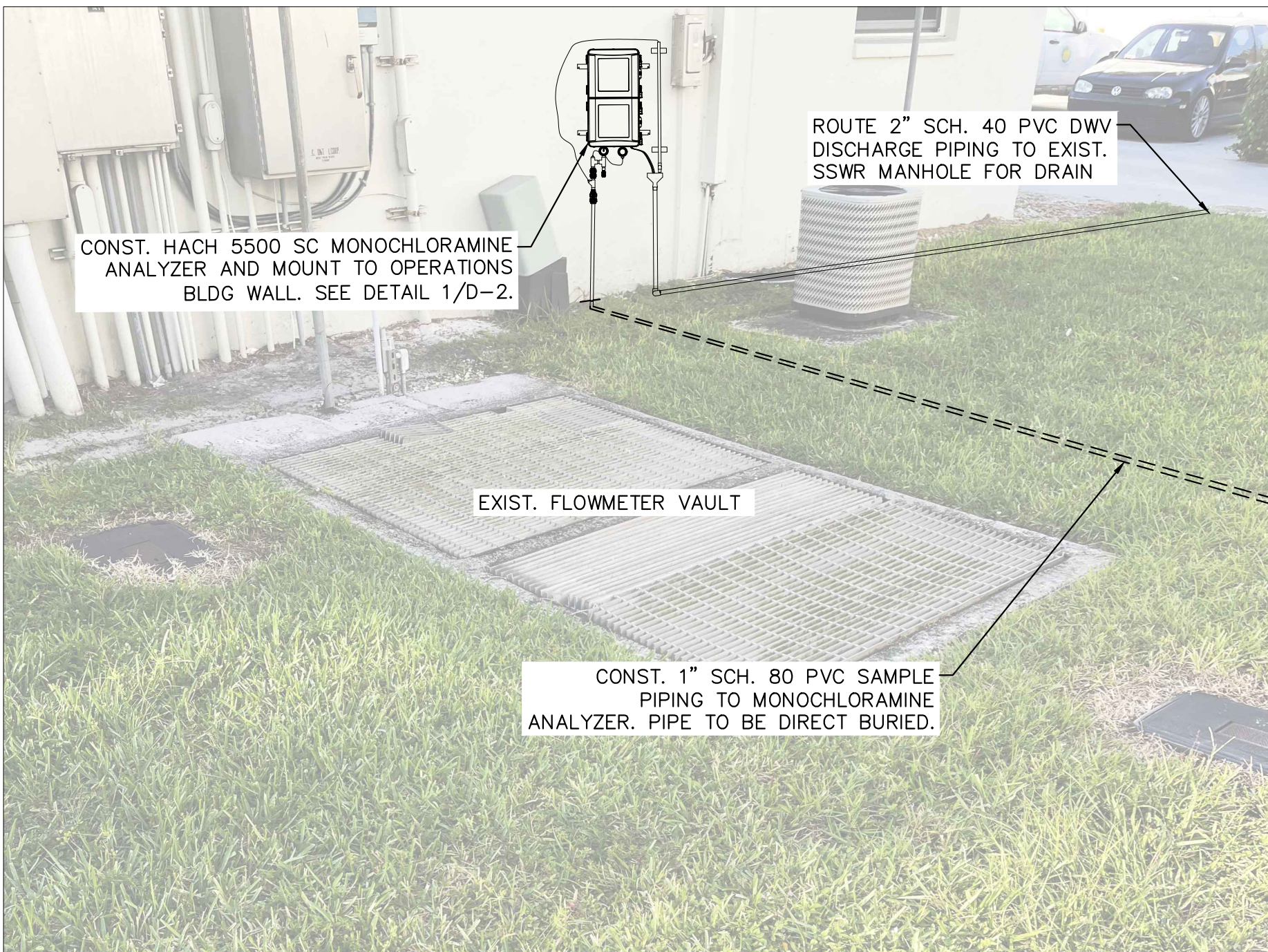
6 OF 19



6 PHOTO DETAIL 6
C-6 Scale: N.T.S.



7 PHOTO DETAIL 7
C-6 Scale: N.T.S.



8 PHOTO DETAIL 8
C-6 Scale: N.T.S.



9 PHOTO DETAIL 9
C-6 Scale: N.T.S.

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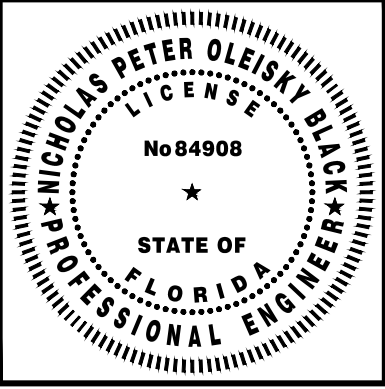
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PREPARED FOR
VILLAGE OF PALM SPRINGS



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AMMONIA SYSTEM PHOTO DETAILS

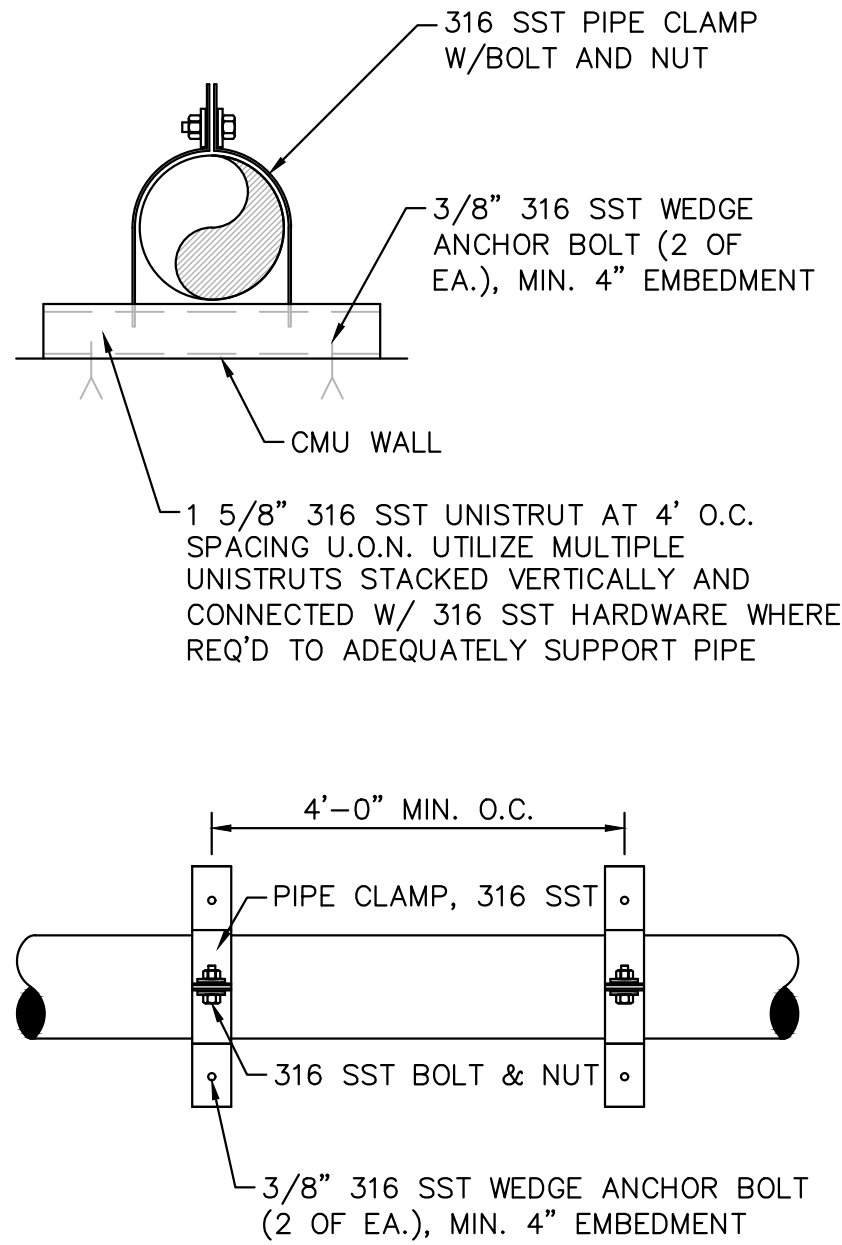
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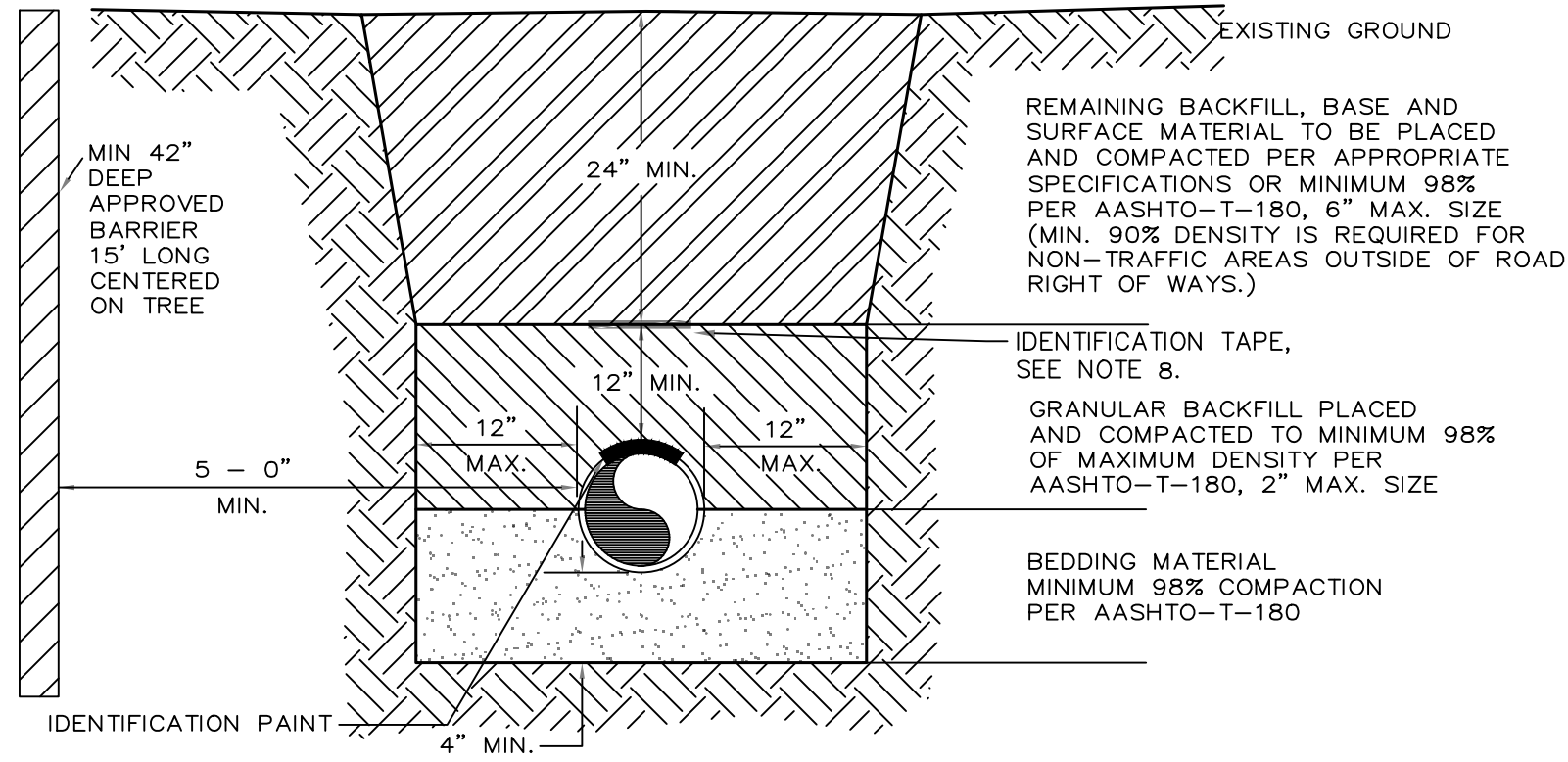
Plotted By: Corriu, Daniel Sheet Set: Main WTP Ammonia Feed System Improvements Layout: D-1 CONSTRUCTION DETAILS July 01, 2024 10:24:32pm K:\web_civil\140593012 - vps_main wtp ammonia\CAD\plansheets\D-1 CONSTRUCTION DETAILS.dwg This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



1 UNISTRUT PIPE SUPPORT DETAIL
D-1 Scale: N.T.S.

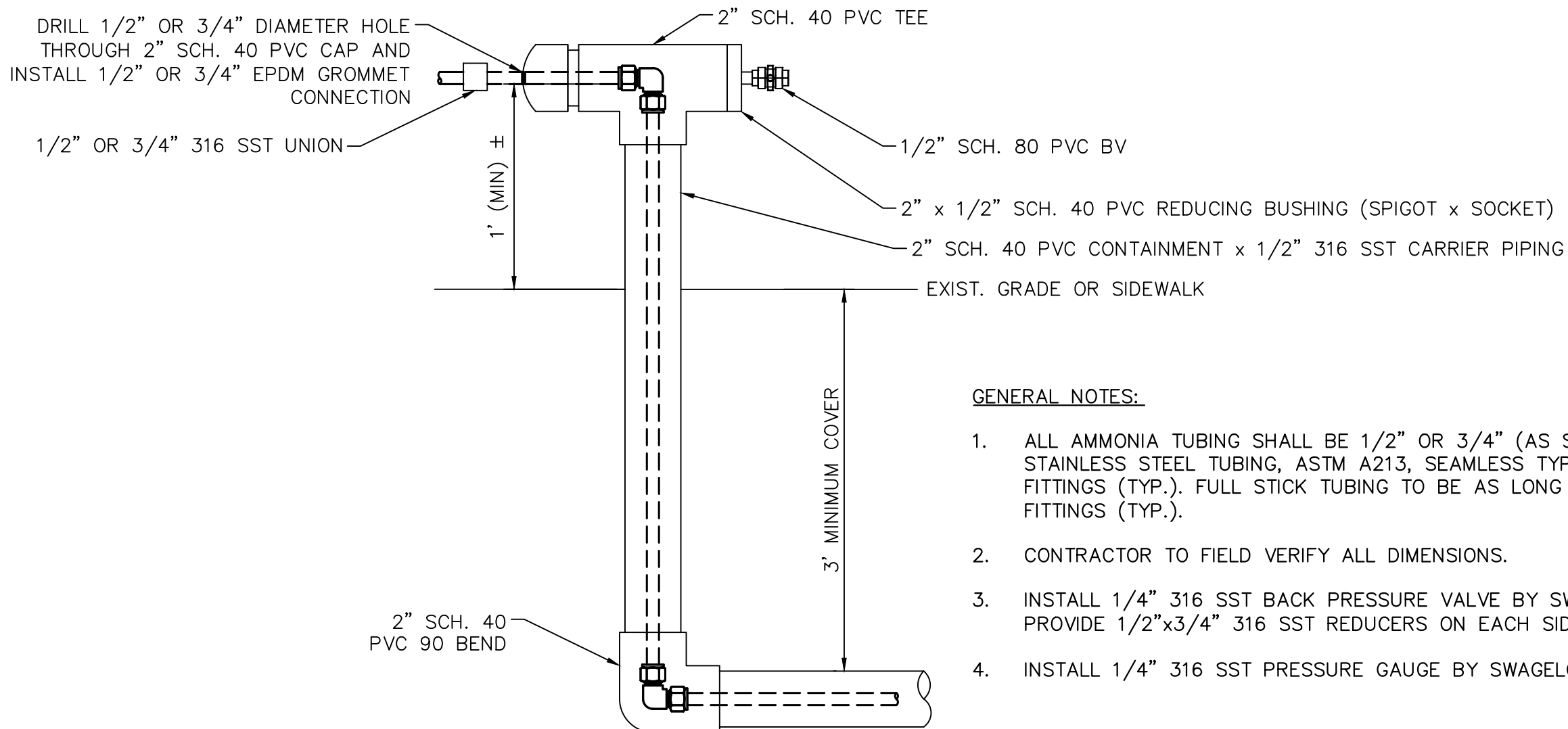
OTHER PIPE	HORIZONTAL SEPARATION	*CROSSING	JOINT SPACING AT CROSSING
STORM SEWER STORMWATER FM RECLAIMED WATER (1)			
VACUUM TYPE SS SEWER			
GRAVITY OR PRESSURE SS SEWER FM RECLAIMED WATER (2)			

3 WATER/SEWER SEPERATION DETAIL
D-1 Scale: N.T.S.



- NOTES:
- BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIME ROCK 3/8" TO 7/8" SIZING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED.
 - THE PIPE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
 - THE PIPE SHALL BE PLACED IN A DRY TRENCH.
 - BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, ROOTS AND DEBRIS.
 - DENSITY TESTS ARE REQUIRED IN 1 FOOT LIFTS ABOVE THE PIPE AT INTERVALS OF 400' MAXIMUM. MINIMUM 1 SET SET OF TESTS FOR EACH GRAVITY MAIN RUN BETWEEN, MANHOLES OR AS DIRECTED BY THE INSPECTOR.
 - THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL TRENCH SAFETY LAWS AND REGULATIONS.
 - THE AFFECTED AREA SHALL BE RESTORED TO EQUAL OR BETTER CONDITION OR AS SPECIFIED IN PERMIT/CONTRACT DOCUMENTS.
 - APPROVED MAGNETIC TAPE IS REQUIRED FOR ALL PVC MAINS. THE TAPE SHALL BE INSTALLED 12" ABOVE PIPE.
 - ROOT BARRIER IS REQUIRED FOR APPROVED TREE INSTALLATION CLOSER THAN 10 FEET FROM UTILITY FACILITIES.

2 TYPICAL TRENCH DETAIL
D-1 Scale: N.T.S.



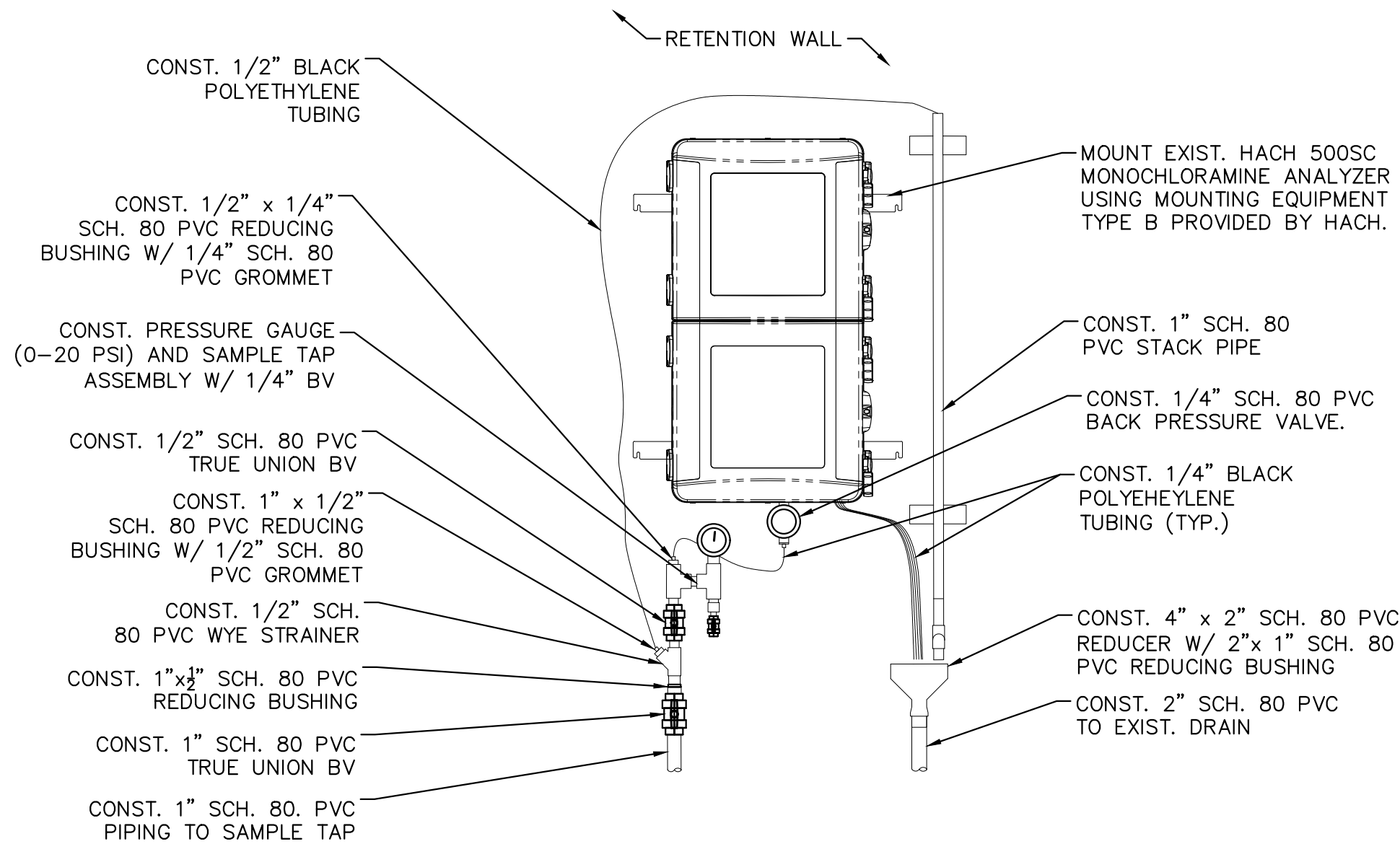
- GENERAL NOTES:
- ALL AMMONIA TUBING SHALL BE 1/2" OR 3/4" (AS SHOWN ON DRAWINGS) BY 0.083 WALL STAINLESS STEEL TUBING, ASTM A213, SEAMLESS TYPE 316 WITH SWAGELOK STYLE COMPRESSION FITTINGS (TYP.). FULL STICK TUBING TO BE AS LONG AS POSSIBLE TO MINIMIZE JOINTS AND FITTINGS (TYP.).
 - CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
 - INSTALL 1/4" 316 SST BACK PRESSURE VALVE BY SWAGELOK MODEL NO. KBP1FOA4B5A 30000. PROVIDE 1/2"x3/4" 316 SST REDUCERS ON EACH SIDE OF BACK PRESSURE VALVE.
 - INSTALL 1/4" 316 SST PRESSURE GAUGE BY SWAGELOK PGI SERIES. (0-100PSI)

4 DUAL CONTAINMENT TRANSITION DETAIL
D-1 Scale: N.T.S.

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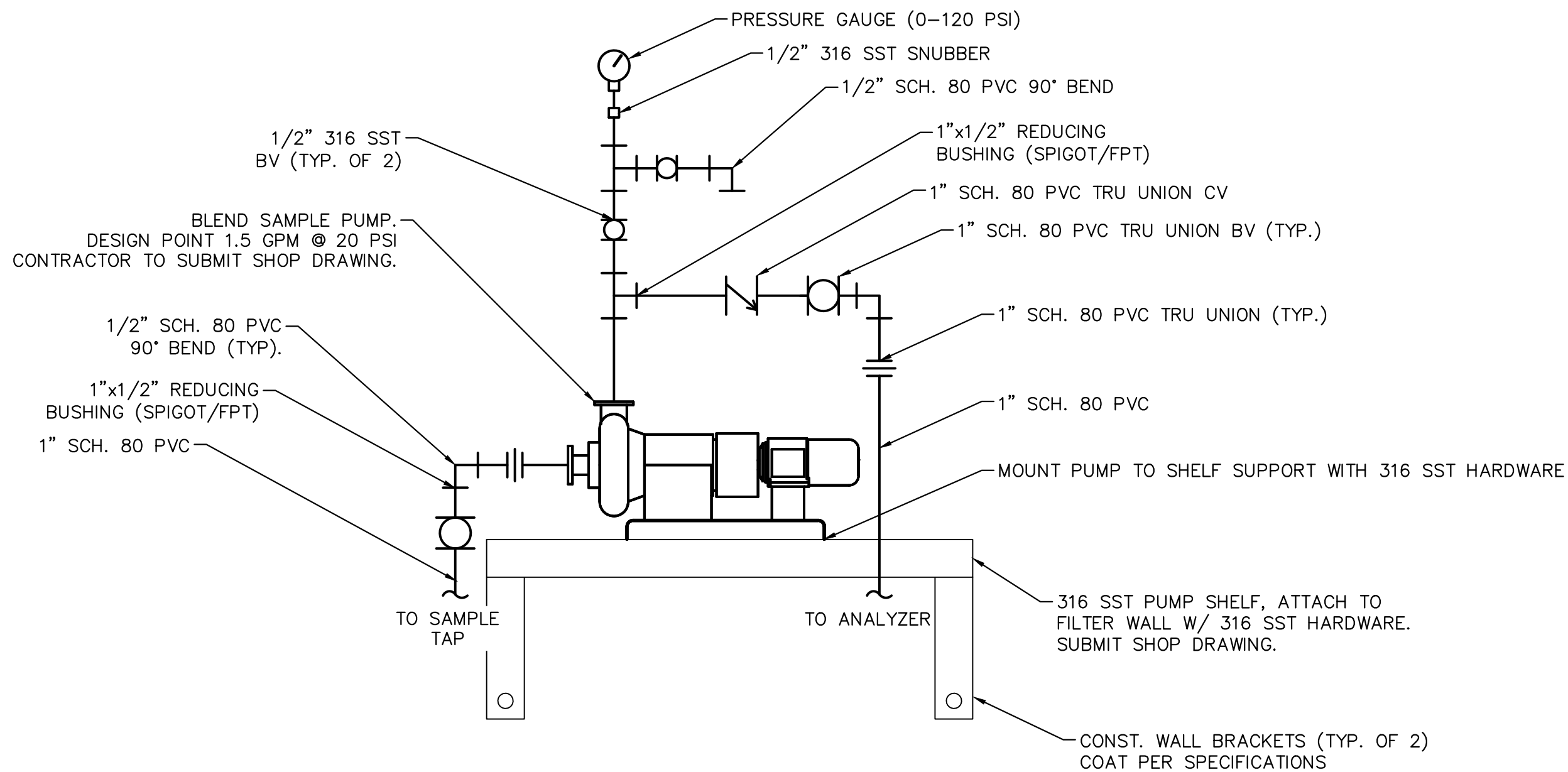
				KHA PROJECT 140593012 DATE JUN 2024 SCALE AS SHOWN DESIGNED BY NPOB DRAWN BY MM CHECKED BY NPOB		MAIN WTP AMMONIA FEED SYSTEM IMPROVEMENTS PREPARED FOR VILLAGE OF PALM SPRINGS PALM BEACH COUNTY FLORIDA				THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ON THE DATE ADJACENT TO THE SEAL.		SHEET NUMBER D-1 8 OF 19	
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REVISIONS				DATE				BY					

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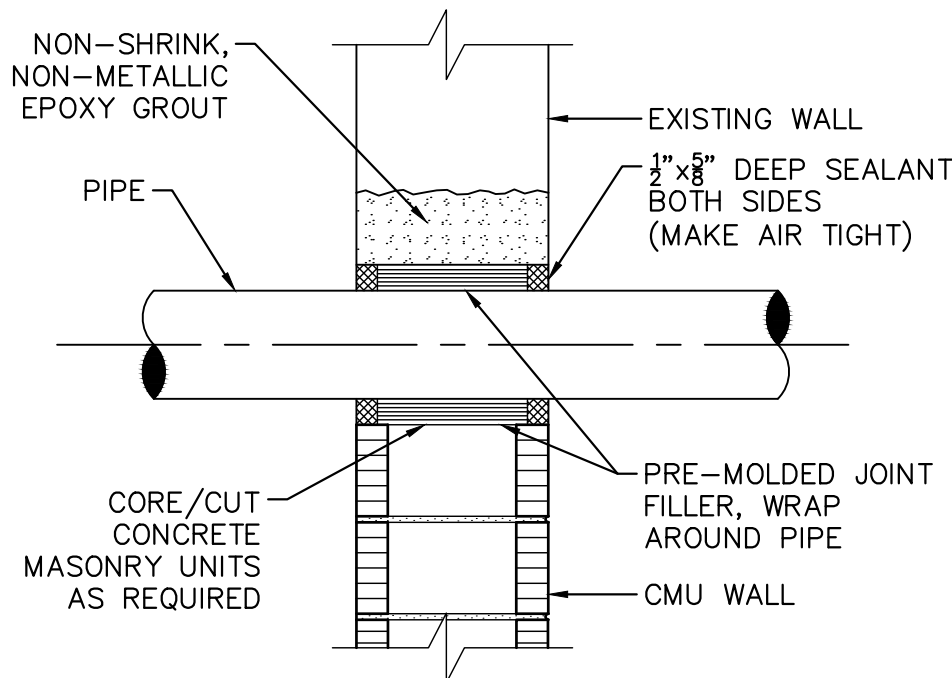
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D-2

MONOCHLORAMINE ANALYZER DETAIL
Scale: N.T.S.



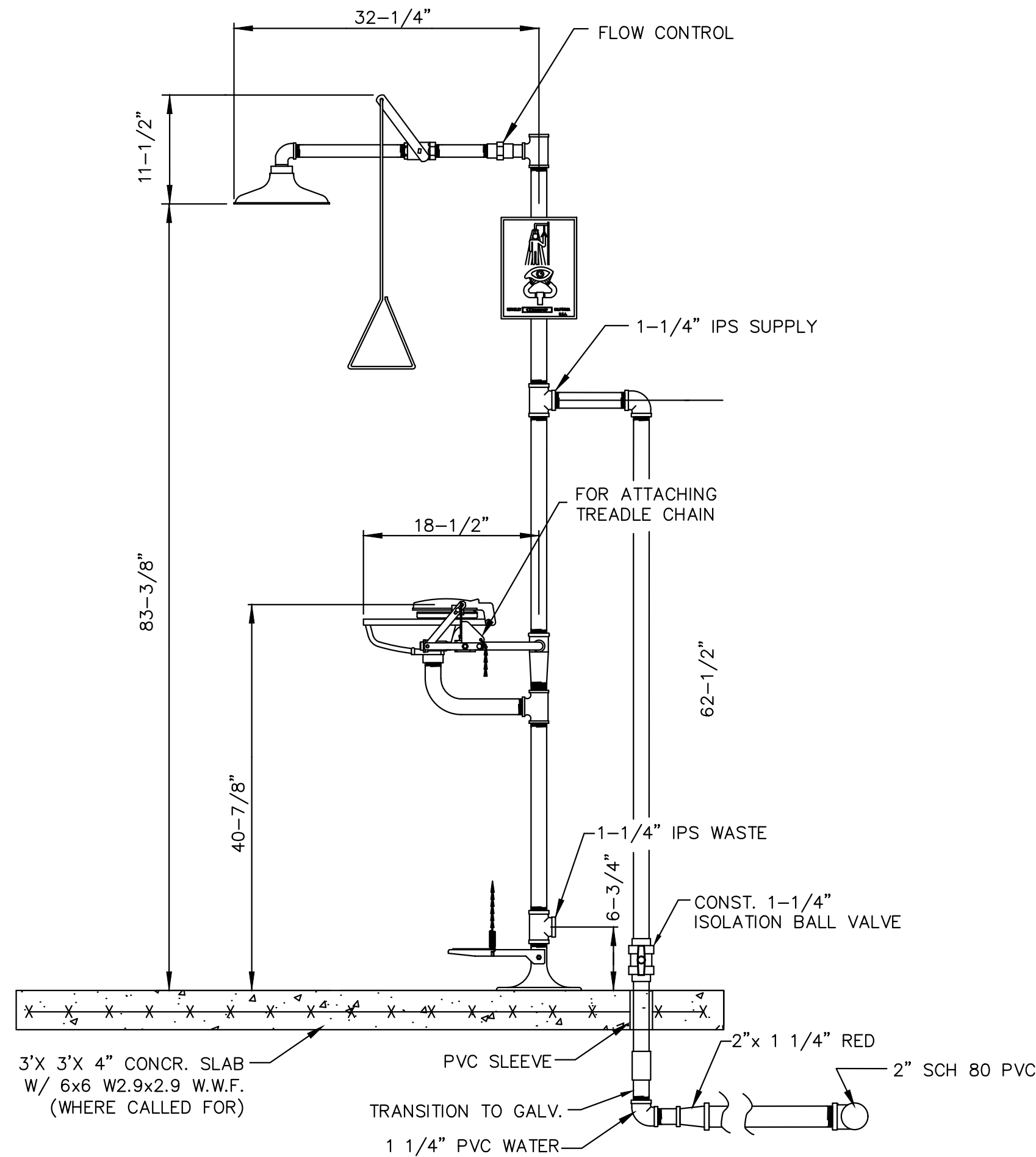
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D-2

SAMPLE PUMP DETAIL
Scale: N.T.S.



2
D-2

PIPE PENETRATION DETAIL
Scale: N.T.S.



NOTE:
1. SST EMERGENCY SHOWER AND EYEWASH, (HAWS 8330).
ALL ABOVE GRADE PIPING SHALL BE SCH 40 GALV.
STEEL PIPE. ALL ATTACHMENT HARDWARE SHALL BE 316
SST.

3
D-2

EMERGENCY EYEWASH SHOWER DETAIL
Scale: N.T.S.

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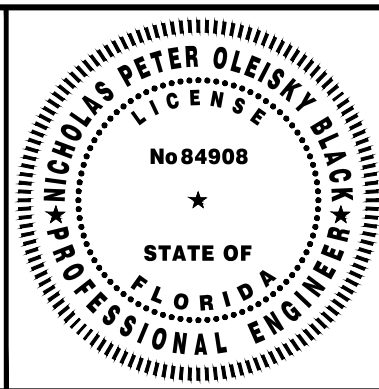
KHA PROJECT 140593012
DATE JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

**MAIN WTP AMMONIA FEED
SYSTEM IMPROVEMENTS**

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA



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CONSTRUCTION DETAILS CONT.

ON THE DATE ADJACENT TO THE SEAL

SHEET NUMBER

D-2

9 OF 19

Plotted By:Corriu, Daniel Sheet Set:Main WTP Ammonia Feed System Improvements Layout:1=1 P&ID ABBREVIATIONS AND SYMBOLS July 01, 2024 10:24:50am K:\web_civil\140593012 - vps main wtp ammonia\CAD\plotsheets\1=1 P&ID ABBREVIATIONS AND SYMBOLS.dwg This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

PIPING AND EQUIPMENT SYMBOLS

	HORIZONTAL SPLITCASE PUMP		TURBINE DRIVER
	CENTRIFUGAL PUMP		FILTER VESSEL
	BLOWER		BAG FILTER
	PARISTALTIC PUMP		DEGASIFIER
	POSITIVE DISPLACEMENT PUMP (W/MANUAL STROKE ADJUSTMENT)		SCRUBBER
	ROTARY COMPRESSOR OR FAN		
	VERTICAL TURBINE PUMP		
	MIXING TEE		
	HEATER		
	MIXER OR AGITATOR		GATE
	STATIC MIXER		GLOBE
	SIGHT GLASS		BALL ≤ 2"
	LEVEL GAUGE		BALL > 2"
	FLOW SIGHT GLASS		BUTTERFLY
	MOTOR		CHECK
	GENERATOR		DIAPHRAGM
	INJECTION SPARGER		PLUG
	REDUCER		NEEDLE
	QUICK DISCONNECT		SOLENOID
	FLOOR DRAIN		3-WAY SOLENOID (SEE DETAIL THIS SHEET)
	RUPTURE DISC		PINCH VALVE
	DIAPHRAGM OR CHEMICAL SEAL		RELIEF AND/OR SAFETY
	EDUCTOR		3-WAY
	Y-STRAINER		4-WAY
	PULSATION DAMPENER		5-WAY
	CALIBRATION COLUMN		BLAST GATE
	VENT TO ATMOSPHERE		
	MEMBRANE TREATMENT STAGE		
	EXPANSION JOINT		

VALVE SYMBOLS

CONT'D

	VACUUM RELIEF VALVE
	DAMPER
LINE SYMBOLS	
	EXISTING
	PROCESS PIPING
	AIR STREAM OR PNEUMATIC SIGNAL
	ELECTRICAL SIGNAL (OR FUTURE)
	FIBER OPTIC
	ETHERNET
	PORT N.C. (OPEN WHEN ENERGIZED)
	PORT N.O. (CLOSE WHEN ENERGIZED)
DETAIL "A" (SOLENOID VALVE OPERATION)	

CONTROL VALVES/
ACTUATORS

	PRESSURE REDUCING REGULATOR, SELF CONTAINED
	BACK PRESSURE REGULATOR, SELF CONTAINED
	MOTOR OPERATED BALL VALVE ≤ 2"
	MOTOR OPERATED BALL VALVE > 2"
	MOTOR OPERATED BUTTERFLY VALVE
	MOTOR OPERATED GLOBE VALVE
	MOTOR OPERATED DAMPER
	MODULATING CONTROL VALVE

SPECIAL IDENTIFICATION

SDI – SILT DENSITY INDEX TEST FILTER HOLDER W/0.45 MICRON FILTER HOLDER

N.C. – NORMALLY CLOSED

N.O. – NORMALLY OPEN

F.C. – FAIL CLOSED

F.O. – FAIL OPEN

INSTRUMENT SYMBOLS

PRIMARY CHOICE OR BASIC PROCESS CONTROL SYSTEM	ALTERNATE CHOICE OR SAFETY INSTRUMENTED SYSTEM	COMPUTER SYSTEMS AND SOFTWARE	DISCRETE	LOCATION AND ACCESSIBILITY
				– LOCATED IN THE FIELD – NOT PANEL, CABINET, OR CONSOLE MOUNTED – VISIBLE AT FIELD LOCATION – NORMALLY OPERATOR ACCESSIBLE
				– LOCATED IN OR ON FRONT OF CENTRAL OR MAIN PANEL OR CONSOLE – VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY – NORMALLY OPERATOR ACCESSIBLE AT PANEL FRONT OF CONSOLE
				– LOCATED IN REAR OF CENTRAL OR MAIN PANEL – LOCATED IN CABINET BEHIND PANEL – NOT VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY – NOT NORMALLY OPERATOR ACCESSIBLE AT PANEL OR CONSOLE
				– LOCATED IN OR ON FRONT OF SECONDARY OR LOCAL PANEL OR CONSOLE – VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY – NORMALLY OPERATOR ACCESSIBLE AT PANEL FRONT OR CONSOLE
				– LOCATED IN REAR OF SECONDARY OR LOCAL PANEL – LOCATED IN FIELD CABINET – NOT VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY – NOT NORMALLY OPERATOR ACCESSIBLE AT PANEL OR CONSOLE

INSTRUMENT DEVICE OR FUNCTION
SYMBOLS, MISC.

	– SIGNAL PROCESSING FUNCTION – LOCATE IN UPPER RIGHT OR LEFT QUADRANT OF SYMBOLS ABOVE – ATTACH TO SYMBOLS ABOVE WHERE AFFECTED SIGNALS ARE CONNECTD – INSERT SIGNAL PROCESSING SYMBOLS FROM TABLE 5.6 – EXPAND SYMBOL BY 50% INCREMENTS FOR LARGER FUNCTION SYMBOLS
	– INSTRUMENTS OR FUNCTIONS SHARING A COMMON HOUSING – IT IS NOT MANDATORY TO SHOW A COMMON HOUSING – NOTES SHALL BE USED TO IDENTIFY INSTRUMENTS IN COMMON HOUSINGS NOT USING THIS SYMBOL
	– PILOT LIGHT – CIRCLE SHALL BE REPLACED WITH ANY SYMBOL FROM COLUMN D
	– PILOT LIGHT – CIRCLE SHALL BE REPLACED WITH ANY SYMBOL FROM COLUMN D

FLOW MEASUREMENT SYMBOLS

	FLOW ELEMENT (ORFICE PLATE)
	FLOW TOTALIZING INDICATOR (TURBINE METER)
	FLOW ELEMENT (ANNUBAR)
	INSERTION TYPE MAGNETIC FLOWMETER
	STANDARD PITOT TUBE
	MAGNETIC FLOWMETER
	INLINE FLOW INDICATOR
	INLINE FLOW INDICATOR (ROTOMETER) WITH INTEGRAL MANUAL VALVE
	FLOW/PRESSURE SWITCH
	VENTURI METER

INSTRUMENT IDENTIFICATION LETTERS

FIRST LETTER (OR PAIR)		SUCCEEDING LETTERS			
	MEASURED/ INITIATING VARIABLE	VARIABLE MODIFIER	READOUT/PASSIVE FUNCTION	OUTPUT/ACTIVE FUNCTION	FUNCTION MODIFIER
A	ANALYSIS(2)		ALARM		
B			USERS CHOICE(3)	USERS CHOICE(3)	USERS CHOICE(3)
C	CONDUCTIVITY (ELECTRIC)			CONTROL	CLOSE
D		DIFFERENTIAL			
E	VOLTAGE (E.M.F.)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FUNCTION)			
G	GAGING (DIMENSION)		GLASS (DIRECT VIEW)	GATE	
H	HAND (MANUAL)				HIGH
I	CURRENT (ELECTRIC)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT(PILOT)		LOW
M	MOISTURE OR HUMIDITY				MIDDLE
N	USER'S CHOICE(3)		USERS CHOICE(3)	USERS CHOICE(3)	NORMAL
O	OXIDE REDUCT. POTENTIAL		ORFICE (RESTRICTION)		OPEN
P	PRESSURE OR VACUUM		TEST OR SAMPLE POINT		
Q	QUANTITY OR EVENT	INTERGRATE/ TOTALIZER			
R	RATIO		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VISCOSITY			VALVE,DAMPER, OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED(4)	UNCLASSIFIED(4)	UNCLASSIFIED(4)	UNCLASSIFIED(4)	UNCLASSIFIED(4)
Y	USERS CHOICE(3)		LIGHT SOURCE	RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE, ETC.	

- ANY FIRST LETTER COMBINED W/ MODIFIER REPRESENTS A NEW AND SEPARATE MEASURED VARIABLE. EXAMPLES: PD=DIFFERENTIAL PRESSURE,FQ=TOTALIZED OR INTERGRATED FLOW. EXCEPTION IS MODIFIER "J" FOR MULTIPPOINT SCANNING. "A" IS USED FOR ANALYTICAL VARIABLES. EXAMPLES: pH,Na,SiO~s2~S,O~s2~S,ETC. A SYMBOL OR DESCRIPTION
- DENOTING THE FUNCTION IS SHOWN OUTSIDE THE INSTRUMENT SYMBOL. EXAMPLE: pH
- MEANING OF A "USER CHOICE" LETTER SHALL BE CONSISTENT THROUGHOUT A PROJECT AND SHALL BE SPECIFIED IN THE DRAWING LEGEND.
- UNCLASSIFIED LETTER MAY HAVE A FEW DIFFERENT MEANINGS ON A PROJECT. THE MEANING SHALL BE SPECIFIED NEAR EACH INSTRUMENT SYMBOL USING THE UNCLASSIFIED LETTER.

CONTROL SYMBOLS

	DISCRETE INPUT
	DISCRETE OUTPUT
	ANALOG INPUT
	ANALOG OUTPUT

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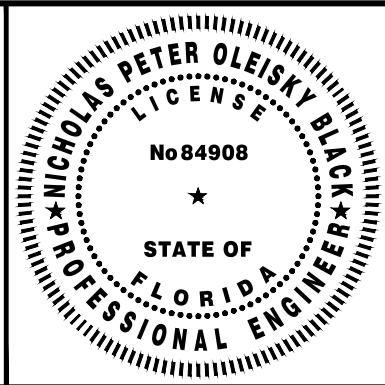
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**MAIN WTP AMMONIA FEED
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FLORIDA



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**P&ID ABBREVIATIONS AND
SYMBOLS**

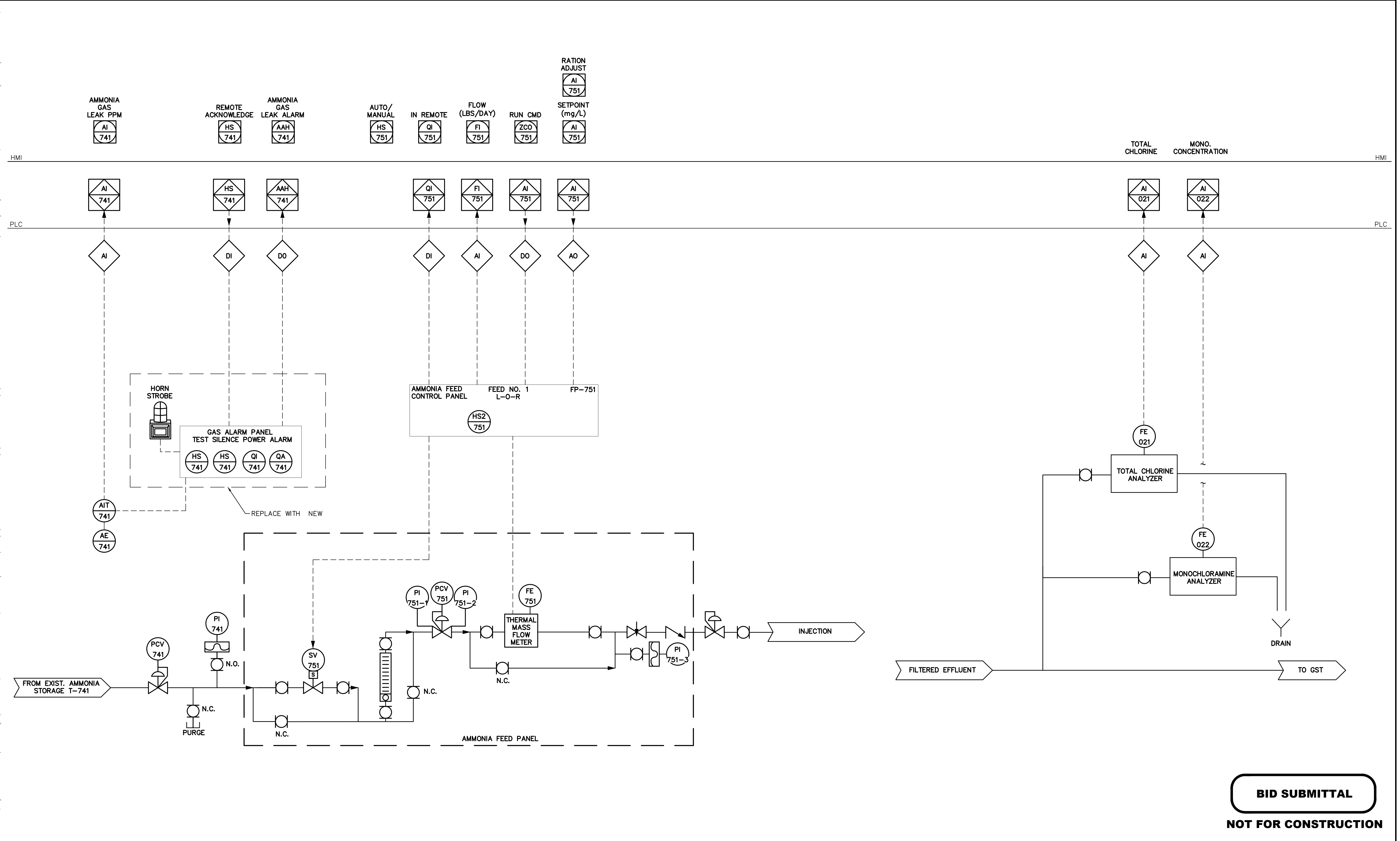
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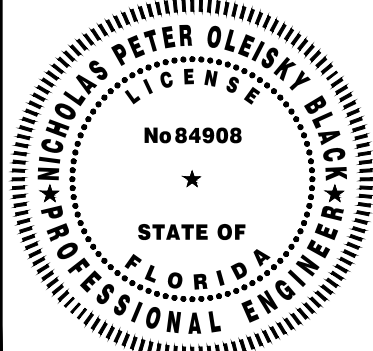
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10 OF 19

Plotted By:Corriu, Daniel Sheet Set:Main WTP Ammonia Feed System Improvements Layout:1-2 AMMONIA FEED SYSTEM AND RESIDUAL MONITORING P&ID July 01, 2024 10:24:55am K:\wpb_civil\140593012 - vps_mor_vto_ammonia\CAD\plansheets\1-2 AMMONIA FEED SYSTEM P&ID.dwg
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No.	REVISIONS	DATE	BY						

Plotted By: Yoon, Sheet Set: Main WTP Ammonia Feed System Improvements, Layout: LEG, June 28, 2024, 08:58:24am, \\10.110.26\csw_dropbox\JOBS\66-KHA\226621\pos_main_wtp_and_profi_wtp_ammonia_system_design\DRAWINGS\pos_main_wtp_and_profi_wtp_ammonia\Site Plans.dwg, This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

GENERAL ELECTRICAL NOTES:

1. GENERAL

A. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS INCLUDING ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM.

B. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM.

C. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS.

D. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NFPA, THE LOCAL BUILDING CODES AND PCBWUD LIFT STATION STANDARDS (LATEST REVISION). ALL COMPONENTS SHALL BE U.L. APPROVED.

E. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL CONCEALED FACILITIES BEFORE ANY WORK BEGINS.

F. CONTRACTOR SHALL COORDINATE WITH POWER COMPANY WHERE THE PROJECT REQUIRES IT.
2. SCOPE OF WORK

A. ELECTRICAL DEMOLITION.

B. ELECTRICAL INSTALLATION.

C. COORDINATION WITH OWNER FOR ANY SHUT DOWNS OF EXISTING SERVICE, INSTALL OF NEW EQUIPMENT.

D. STARTUP, TESTING, & TRAINING OF PLANT STAFF.
3. CONDUIT

A. CONDUIT SIZES AS SHOWN ON THE DRAWINGS ARE A MINIMUM. THE CONTRACTOR MAY INCREASE AS REQUIRED FOR EASE OF PULLING.

B. ALL EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL. CONDUITS SHALL HAVE BURRS REMOVED WITH A REAMER. CONDUITS ENTERING CABINETS SHALL HAVE LOCK NUTS INSIDE AND OUT UNLESS ENTRANCE IS THREADED. NYLON INSULATED BUSHINGS SHALL BE USED ON ALL CONDUIT TERMINATIONS.

C. ALL UNDERGROUND CONDUITS SHALL BE INSTALLED 24" BELOW FINAL GRADE.

D. PROVIDE CONDUIT SWEEPS TO WETWELL AND OTHER LOCATIONS WHENEVER POSSIBLE, AVOID 90° BENDS.
4. JUNCTION BOXES

A. PROVIDE ADDITIONAL BOXES AS MAY BE REQUIRED. PROVIDE NEMA 4X OUTSIDE AND INSIDE IN CHEMICAL ROOMS.
5. CONDUCTORS

A. CONDUCTORS SHALL BE COPPER STRANDED TYPE XHHW WITH 75°C RISE INSULATION.
6. GROUNDING

A. PROVIDE GROUND SYSTEM AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE NATIONAL ELECTRIC CODE.

B. ALL POWER RACEWAYS REQUIRE GROUNDING. CONDUCTORS, BONDING CONDUCTORS THROUGH THE RACEWAY SYSTEMS SHALL BE CONTINUOUS FROM MAIN SWITCH GROUND BUSES TO PANEL GROUND BARS, AND FROM PANEL GROUNDING BARS TO BRANCH CIRCUIT OUTLETS, MOTORS, LIGHTS, ETC. THESE GROUND CONDUCTORS ARE REQUIRED THROUGHOUT THE PROJECT REGARDLESS OF WHETHER CONDUIT RUNS SHOW GROUND CONDUCTORS ON THE DRAWINGS.
7. FACILITY SHUT DOWN

A. CONTRACTOR SHALL COORDINATE POWER SYSTEM DOWNTIME WITH FPL AND THE OWNER. PROVIDE TEMPORARY BYPASS PUMPING AS REQUIRED BY CONTRACT DOCUMENTS.
8. RESTORATION

A. CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITIONS ALL FACILITIES HE DISTURBS. CONTRACTOR SHALL PROVIDE CLEANUP TO ORIGINAL CONDITIONS.
9. WARRANTY

A. CONTRACTOR SHALL WARRANT LABOR AND MATERIALS PER THE TERMS IN THE CONTRACT, SEE OTHER SPECIFICATIONS..
10. MATERIALS

A. EXCEPT AS INDICATED OR NOTED, ALL MATERIAL SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.

B. IN CHEMICAL AREAS CONTRACTOR SHALL USE PVC CONDUITS AND PVC FITTINGS, NO RGS ALLOWED.
11. PROGRAMMING

A. ALL RTU AND SCADA PROGRAMING SHALL BE PROVIDED BY THE I&C CONTRACTOR.
12. SCHEMATIC NATURE

A. PLANS ARE SCHEMATIC IN NATURE AND MEANT TO SHOW THE SCHEMATIC ARRANGEMENT OF EQUIPMENT AND CONDUIT. ELECTRICAL SITE PLAN IS NOT BASED ON SURVEY. PLAN IS AN APPROXIMATION BASED ON FIELD MEASUREMENTS. CONTRACTOR SHALL MEET ALL N.E.C. CLEARANCE REQUIREMENTS.
13. CLEARANCES

A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MEET N.E.C. CLEARANCES ABOUT EQUIPMENT. THE SAME APPLIES TO RACEWAY SUPPORTS.

14. ROUTING

A. CONDUIT ROUTING IS SCHEMATIC IN NATURE. CONDUIT ROUTING IS SHOWN FOR CLARITY ON THE CONTRACT DRAWINGS. ROUTE CONDUITS AS MAY BE REQUIRED.
15. RESPONSIBILITIES

A. BIDDERS, SUPPLIERS, EQUIPMENT VENDORS, GENERAL CONTRACTOR, SUB CONTRACTORS AND OTHER SIMILAR ENTITIES ARE REQUIRED TO READ ALL THE CONTRACT DOCUMENTS INCLUDING DRAWINGS AND SPECIFICATIONS.

B. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE NEC AND ITS APPLICATION TO THE INSTALLATION ENVIRONMENT.
16. HOMERUNS

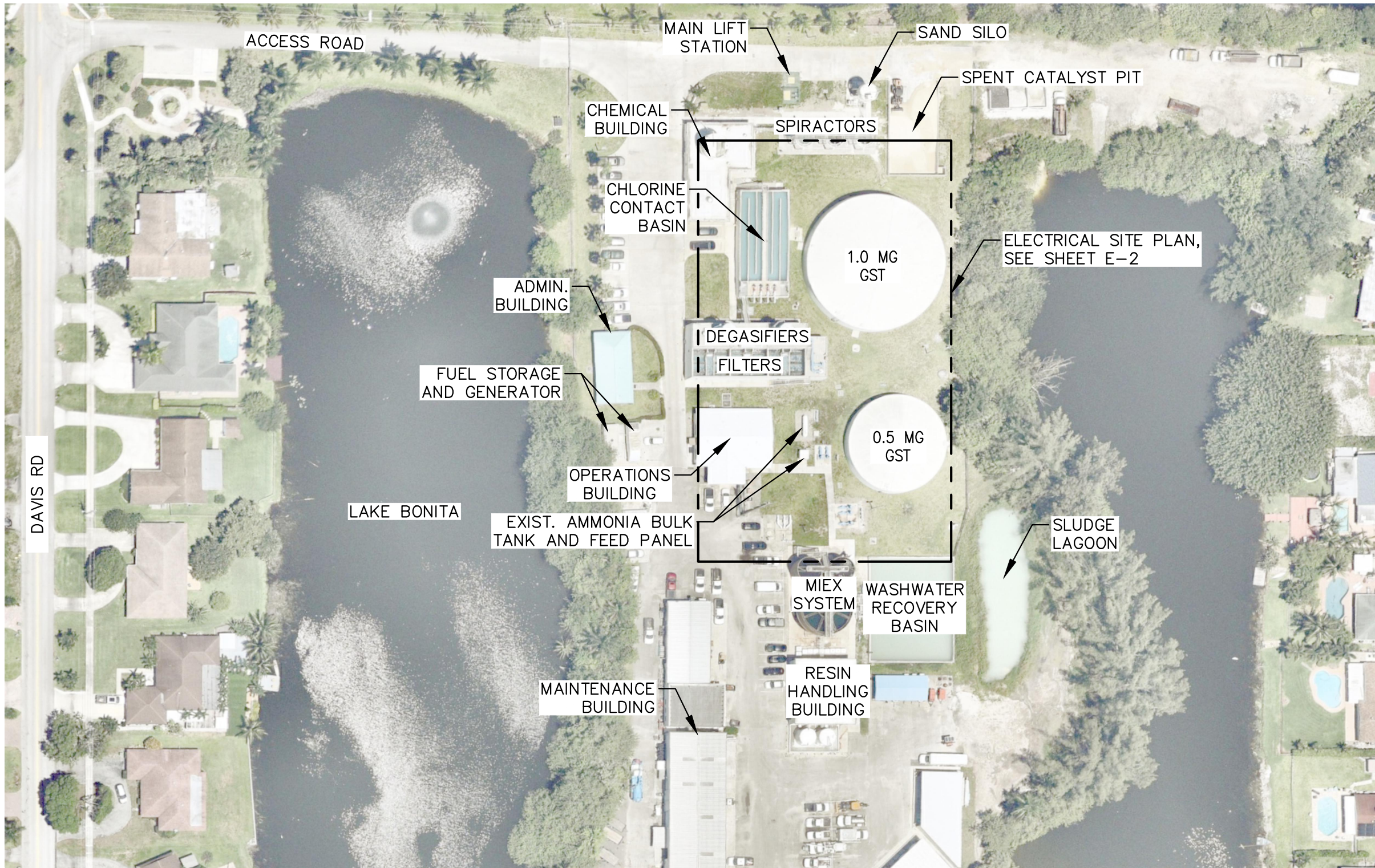
A. CONTRACTOR SHALL COORDINATE HOME RUNS BETWEEN PLAN VIEWS. WHERE ANY CONDUIT IS SHOWN IN ANY PLAN VIEW IT SHALL BE INSTALLED THE ENTIRE LENGTH AS MAY BE REQUIRED.
17. ELECTRICAL SERVICE

A. CONTRACTOR SHALL PROVIDE POWER CO. COORDINATION, LABOR, AND ALL MATERIALS AS REQUIRED. THIS SHALL INCLUDE DEMOLITION OF EXISTING SERVICE, DIRECTIONAL BORING, AND/OR CUTTING AND PATCHING, AND RESTORATION OF ALL AREAS TO ORIGINAL CONDITIONS.
18. READ THE SPECIFICATIONS

A. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. THERE ARE REQUIREMENTS NOTED IN THE SPECIFICATIONS WHICH ARE NOT INDICATED ON THE DRAWINGS.
19. APPROVED SHOP DRAWINGS

A. USE APPROVED SHOP DRAWINGS FOR LAY OUT OF EQUIPMENT. THE CONTRACT DOCUMENTS WILL VARY FROM THE SHOP DRAWINGS. INFORM THE ENGINEER IMMEDIATELY IF THERE ARE LAY OUT ISSUES OR INADEQUATE SPACE FOR EQUIPMENT OR CLEARANCES. LAND CONDUITS IN OPENINGS OF ENCLOSURES PER THE APPROVED SHOP DRAWINGS, DO NOT USE THE CONTRACT DRAWINGS.
20. FUTURE FACILITIES

A. WHERE FUTURE FACILITIES ARE INDICATED. CONDUIT ROUTING SHALL ACCOUNT FOR SUCH FACILITIES.



MAIN WATER TREATMENT PLANT OVERALL SITE PLAN

SCALE AS NOTED

MATERIAL SCHEDULE

LOCATION	CONDUIT	ENCLOSURE MATERIALS	ENCLOSURE NEMA RATING	FASTENERS, STRUT, THREADED ROD, ETC.	REMARKS
INTERIOR					
EXPOSED IN AIR CONDITIONED EQUIPMENT ROOMS	ALUMINUM	PAINTED STEEL	1	316 SS	
EXPOSED IN PUMP ROOMS, EQUIPMENT ROOMS, ETC. (NOT AIR CONDITIONED)	PVC SCHED. 80	316 SS	1A GASKETED	316 SS	
EXPOSED IN CHEMICAL ROOMS/AMMONIA AREA.	PVC COATED RGS	316 SS/FIBERGLASS	4X	316 SS	PVC COATED FITTINGS
CONCEALED IN BLOCK WALLS, POURED CONCRETE WALLS, ETC.	PVC SCHED. 40	N/A	N/A	316 SS	
EXTERIOR					
BELOW GRADE	PVC SCHED. 40	CONCRETE BOXES	N/A	316 SS	
ABOVE GRADE	PVC SCHED. 80	316 SS	4X	316 SS	

GENERAL NOTES

- THE FOLLOWING SHALL ESTABLISH THE MINIMUM LEVEL OF QUALITY FOR MATERIALS.
- THE FOLLOWING SHALL APPLY UNLESS OTHERWISE INDICATED BY DRAWINGS.
- THE FOLLOWING SHALL NOT APPLY TO POWER TRANSFORMERS, LIGHT FIXTURES AND LIGHT POLES, THOSE ELEMENTS ARE NOTED OR INDICATED ELSEWHERE.

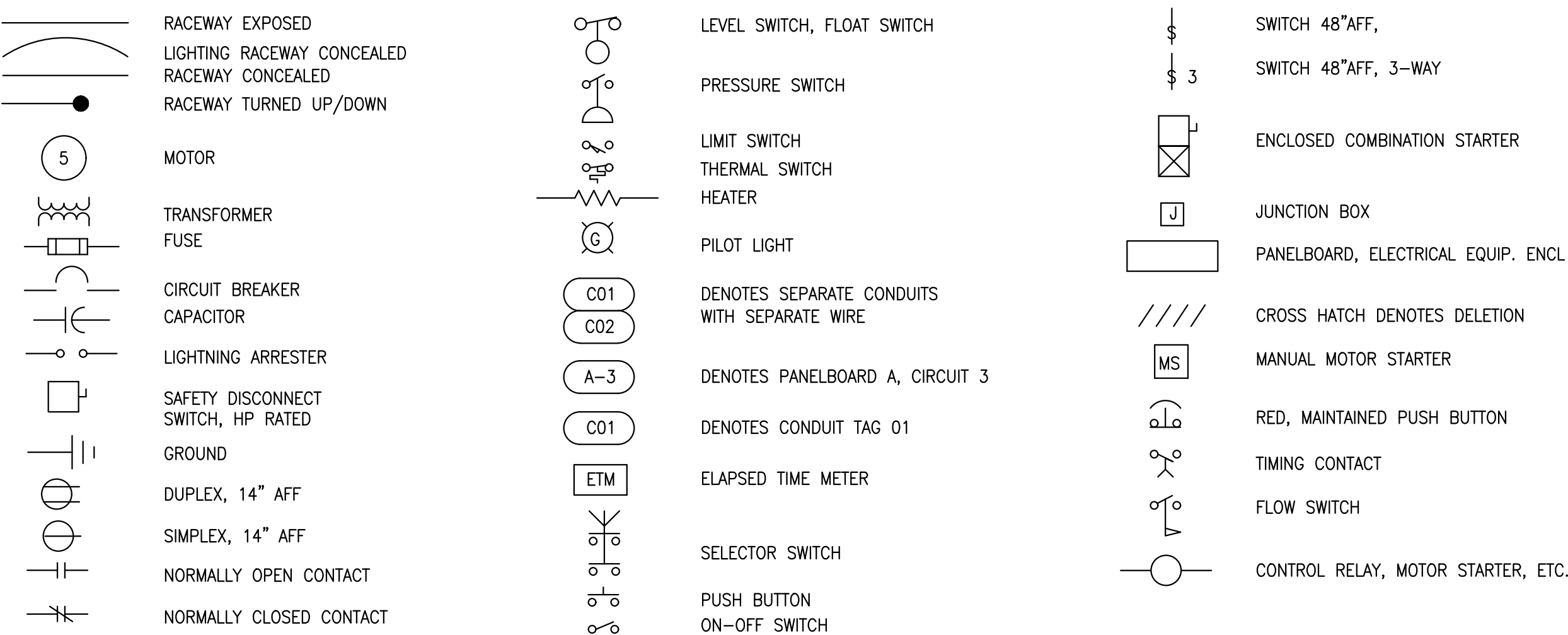
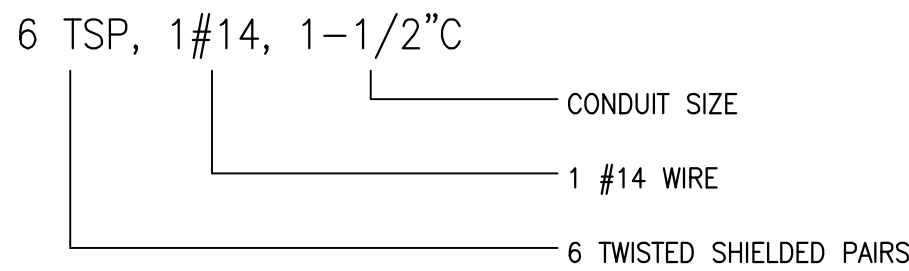
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N/A	NOT APPLICABLE
316 SS	316 STAINLESS STEEL
EMT	ELECTRICAL METALLIC TUBING, GALV. STEEL
ALUMINUM	ALUMINUM RIGID CONDUIT 6063 ALLOY, NOT ALUMINUM EMT

ELECTRICAL ABBREVIATIONS

37C ATB CR CP CPB CS CTB DISC DMM DS DTB EN ETM F FO FO-E FSA FWP GFI HOA	37 CONDUCTOR CABLE ANALOG TERMINAL BOX CONTROL RELAY CONTROL PANEL CONTROL PULL BOX CONTROL STATION CONTROL TERM. BOX DISCONNECT SWITCH DIGITAL MULTIMETER DOOR SWITCH DISCRETE TERMINAL BOX ETHERNET ELAPSED TIME METER FUSE FIBER OPTIC FIBER OPTIC ETHERNET FIELD SURGE ARRESTOR FEED WATER PUMP GROUND FAULT INTERRUPTER HAND-OFF-AUTO	HOR LA LOR M MB+ MCC MLO NF OHU OL PB PDP PM PNLBD PPB PSA PSCP PTB	HAND-OFF-REMOTE LIGHTNING ARRESTER LOCAL-OFF-REMOTE MOTOR STARTER MODBUS PLUS MOTOR CONTROL CENTER MAIN LUG ONLY NON FUSED OR NANO FILTRATION OVER HEAD ELEC UTILITIES OVER LOAD RELAY PUSH BUTTON POWER DIST. PANEL POWER MONITOR PANELBOARD POWER PULL BOX PANEL SURGE ARRESTOR PUMP STATION CONTROL PANEL POWER TERMINAL BOX	R,G,A RGS RO SA SS SWBD STB TC TOT TS VCP VFD WP WW WWCP ZSL ZSO	RED, GREEN, AMBER PILOT LIGHT RIGID GALV. STEEL READ OUT SURGE ARRESTER SELECTOR SWITCH OR 316 STAINLESS STEEL SWITCH BOARD SIGNAL TERMINAL BOX TIME CLOCK OR TRAY CABLE TOTALIZER TEST SWITCH VENDOR CP VARIABLE FREQUENCY DRIVE WEATHER PROOF WIRE WAY WET WELL CONTROL PANEL POSITION SWITCH CLOSED POSTION SWITCH OPEN
--	---	--	--	--	--

CONDUIT LEGEND



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WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT 140593012
DATE JUN 2024
SCALE AS SHOWN
DESIGNED BY JLR
DRAWN BY YGC
CHECKED BY MAG

MAIN WTP AMMONIA FEED
SYSTEM IMPROVEMENTS
PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA

LICENSED PROFESSIONAL
MICHAEL A. GUIDA
FLORIDA LICENSE NUMBER 60755

ELECTRICAL NOTES & LEGEND

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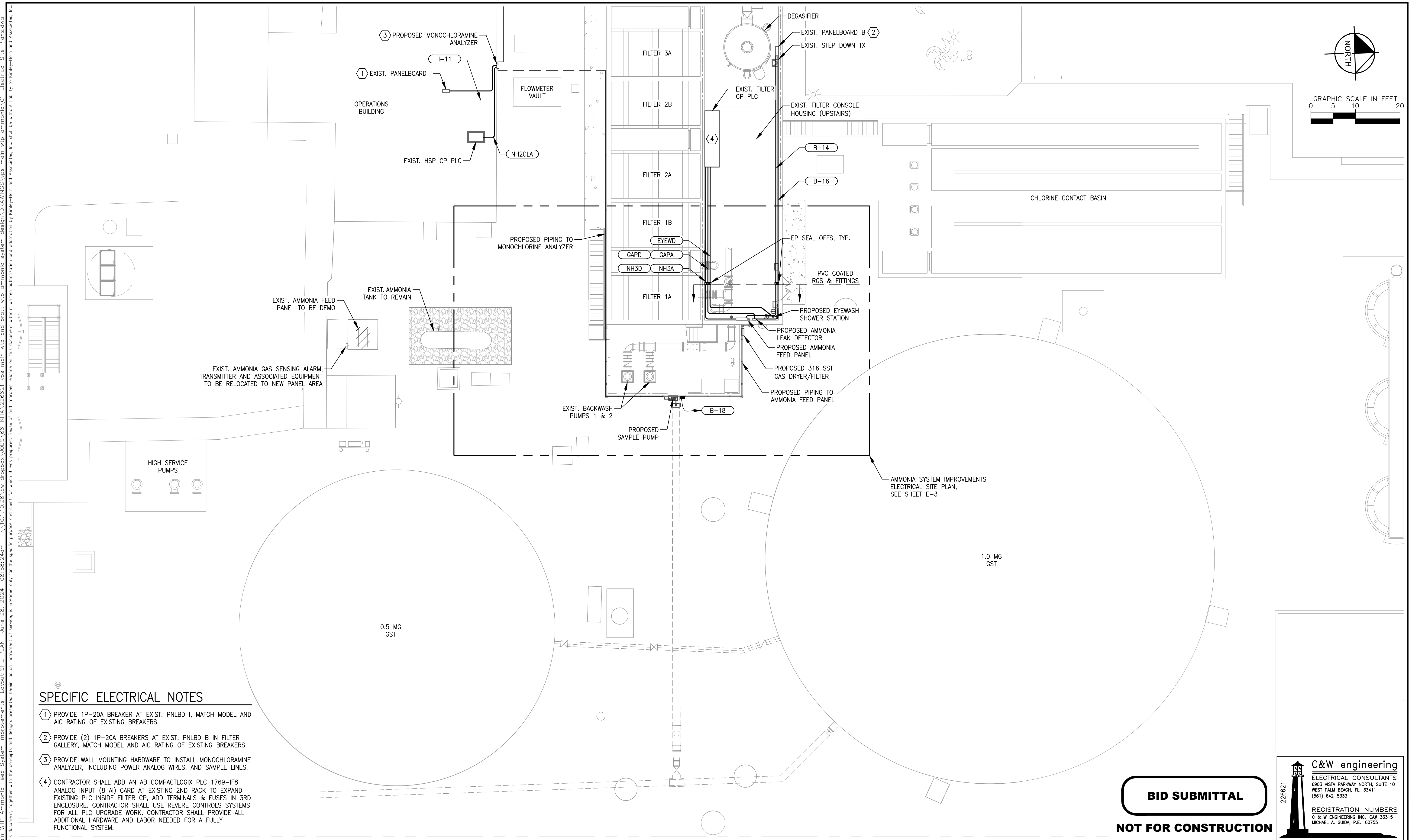
NOT FOR CONSTRUCTION

C&W engineering
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WEST PALM BEACH, FL 33411
(561) 642-5335
REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

SHEET NUMBER

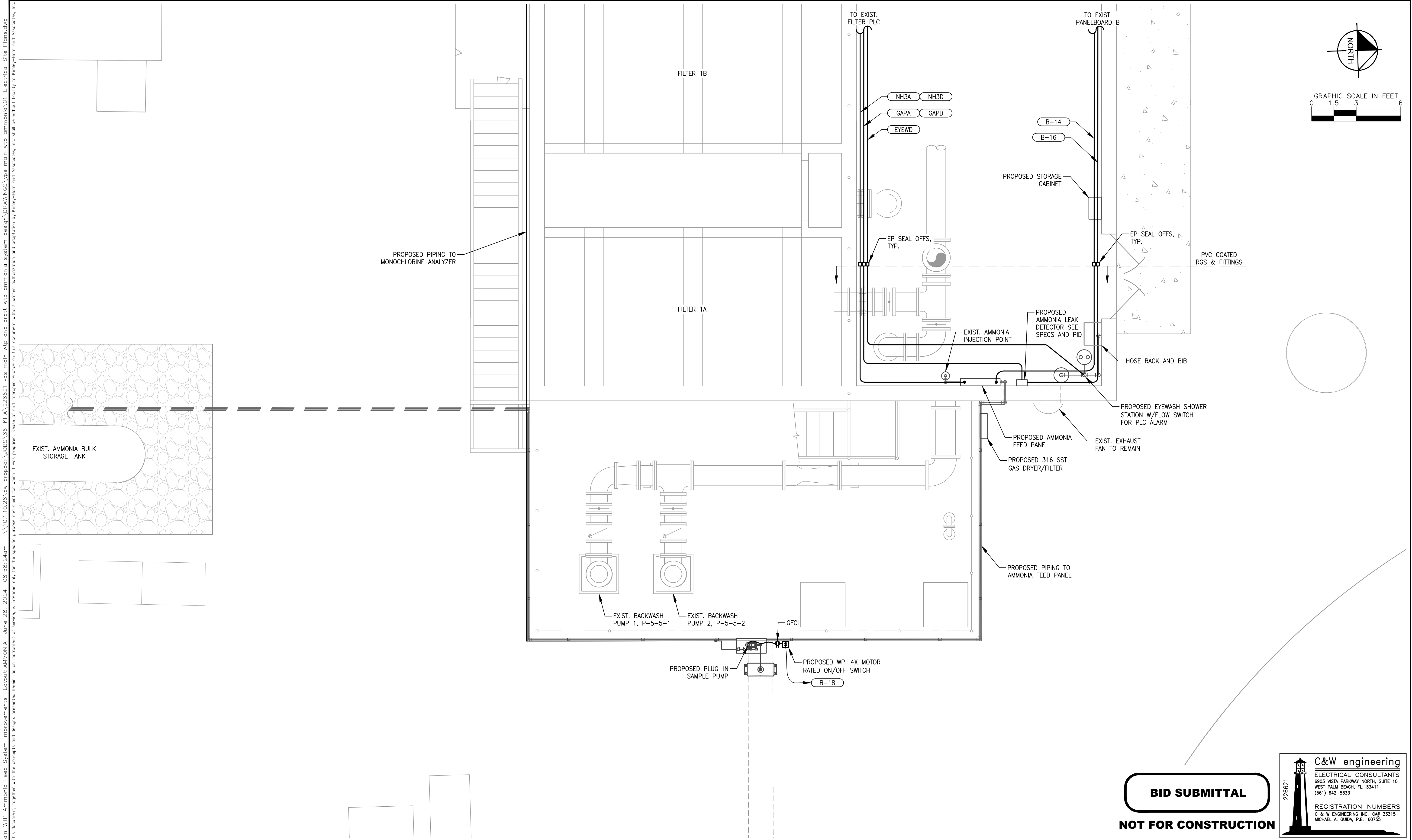
E-1

12 OF 19



Plotted By / Year			
No.	REVISIONS	DATE	BY

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Plotted By: Yoon, Sheet Set: Main WTP Ammonia Feed System Improvements, Layout: AMMONIA June 28, 2024, 08:58:24am. \\10.1.10.26\cw_dropbox\JOBS\66-KHA\226621_wtp_main_wtp_and_pratt_wtp_ammonia_system_design\DRAWINGS\wtp_main_wtp_ammonia\01-Electrical Site Plans.dwg
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KHA PROJECT	140593012
DATE	JUN 2024
SCALE	AS SHOWN
DESIGNED BY	JLR
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CHECKED BY	MAG

MAIN WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

AMMONIA SYSTEM IMPROVEMENTS ELECTRICAL SITE PLAN

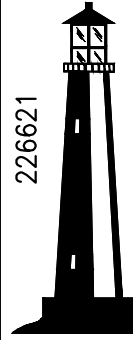
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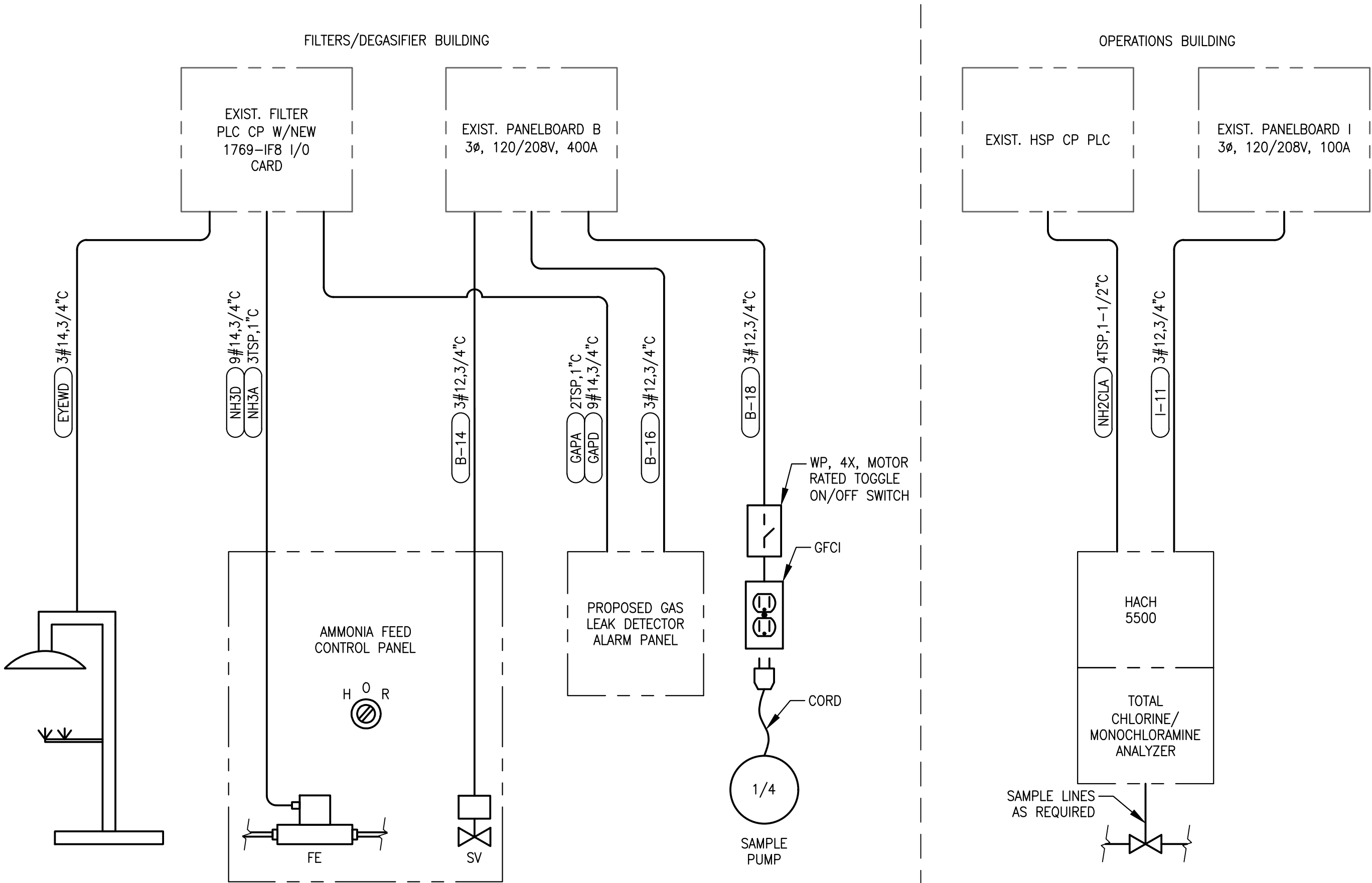
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120/208V, 3Ø PANELBOARD B LOAD CALCULATION	
DESCRIPTION	AMPS
EXISTING LOAD 67A X 125%	83.75
PER NEC 220.87	
PROPOSED NEW LOAD	7.5
TOTAL	91.25
400A PANELBOARD	

120/208V, 3Ø PANELBOARD I LOAD CALCULATION	
DESCRIPTION	AMPS
EXISTING LOAD 39A X 125%	48.25
PER NEC 220.87	
PROPOSED NEW LOAD	1.6
TOTAL	49.85
100A PANELBOARD	



ELECTRICAL POWER & CONTROLS RISER DIAGRAM

NTS

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WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT	140593012
DATE	JUN 2024
SCALE	AS SHOWN
DESIGNED BY	JLR
DRAWN BY	YGC
CHECKED BY	MAG

**MAIN WTP AMMONIA FEED
SYSTEM IMPROVEMENTS**
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

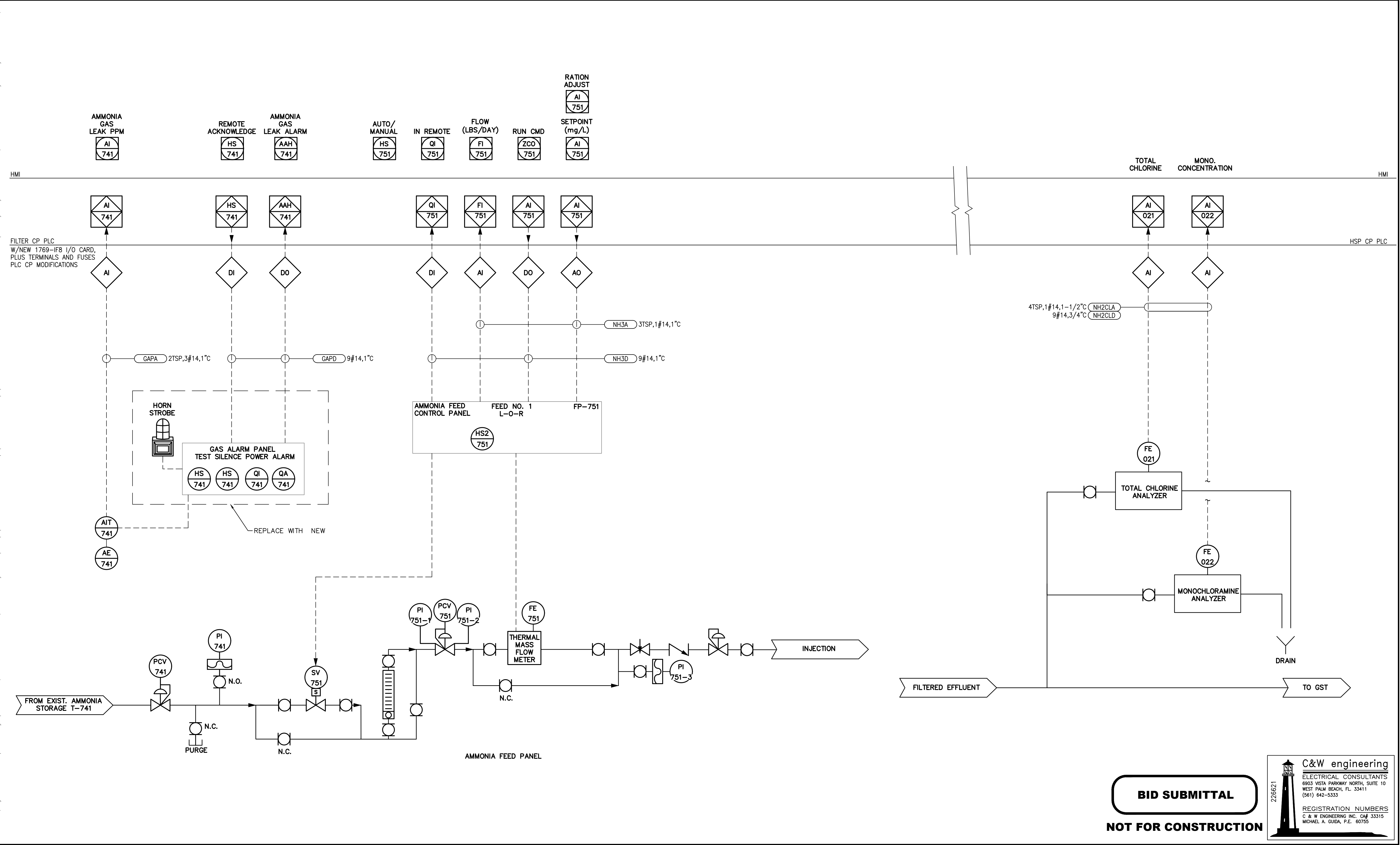
**ELECTRICAL POWER &
CONTROLS RISER DIAGRAM**

SHEET NUMBER

E-4

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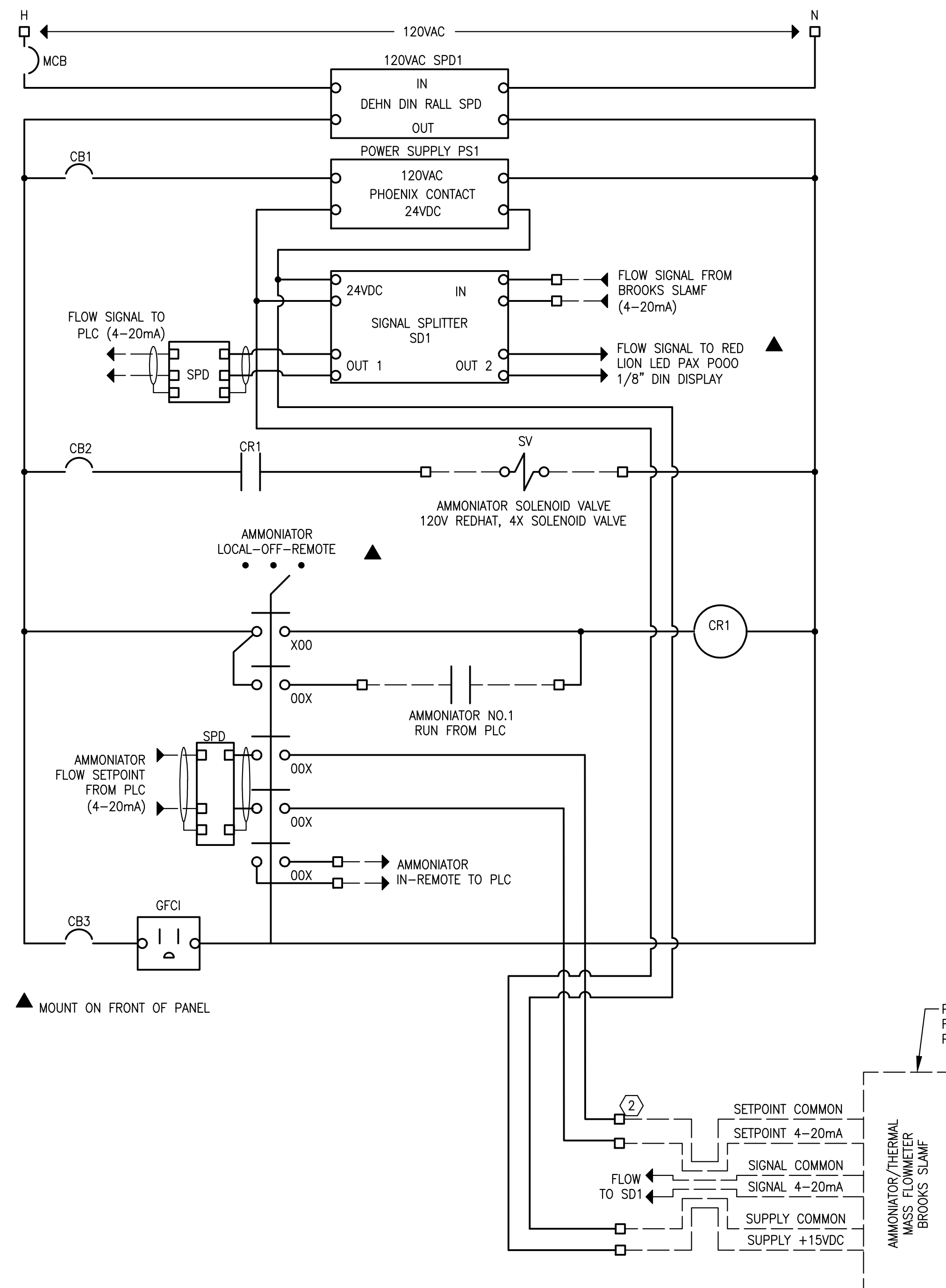
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WEST PALM BEACH, FL. 33411
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	DATE JUN 2024				
	SCALE AS SHOWN				
	DESIGNED BY JLR				
	DRAWN BY YGC				
CHECKED BY MAG		DATE: _____			



SPECIFIC ELECTRICAL NOTES

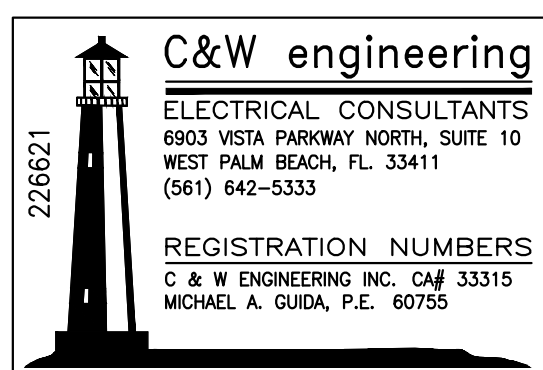
- ① I&C CONTRACTOR SHALL USE THE AMMONIA CONTROLLER WIRING AS GUIDANCE ONLY AND ADJUST THE WIRING BASE ON THE ACTUAL EQUIPMENT AND CABLE TYPE SUPPLIED WITHOUT ADDITIONAL COST TO THE VILLAGE, IT IS CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BREAKERS, POWER SUPPLY, SURGE PROTECTIVE DEVICES, RELAYS, SPD DEVICES, SIGNAL SPLITTERS, SELECTOR SWITCHES, RELAYS, TERMINAL BLOCKS, WIRING, ETC. FOR A COMPLETE AND FUNCTIONAL AMMONIA CONTROLLER SYSTEM IN PLACE.
- ② NOT ALL SURGE PROTECTIVE DEVICES SHOWN FOR CLARITY. FURNISH AND INSTALL SURGE PROTECTIVE DEVICE, PHOENIX CONTACT PLUGTRAB SERIES, OR APPROVED EQUAL BROOKS LOW MASS FLOWMETERS, WHICH EXTEND BEYOND THE CONTROL PANEL WITH SAMPLE LINES.

AMMONIA FEED CONTROL PANEL SCHEMATICS

NTS, UL508

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MAIN WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
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DATE: _____

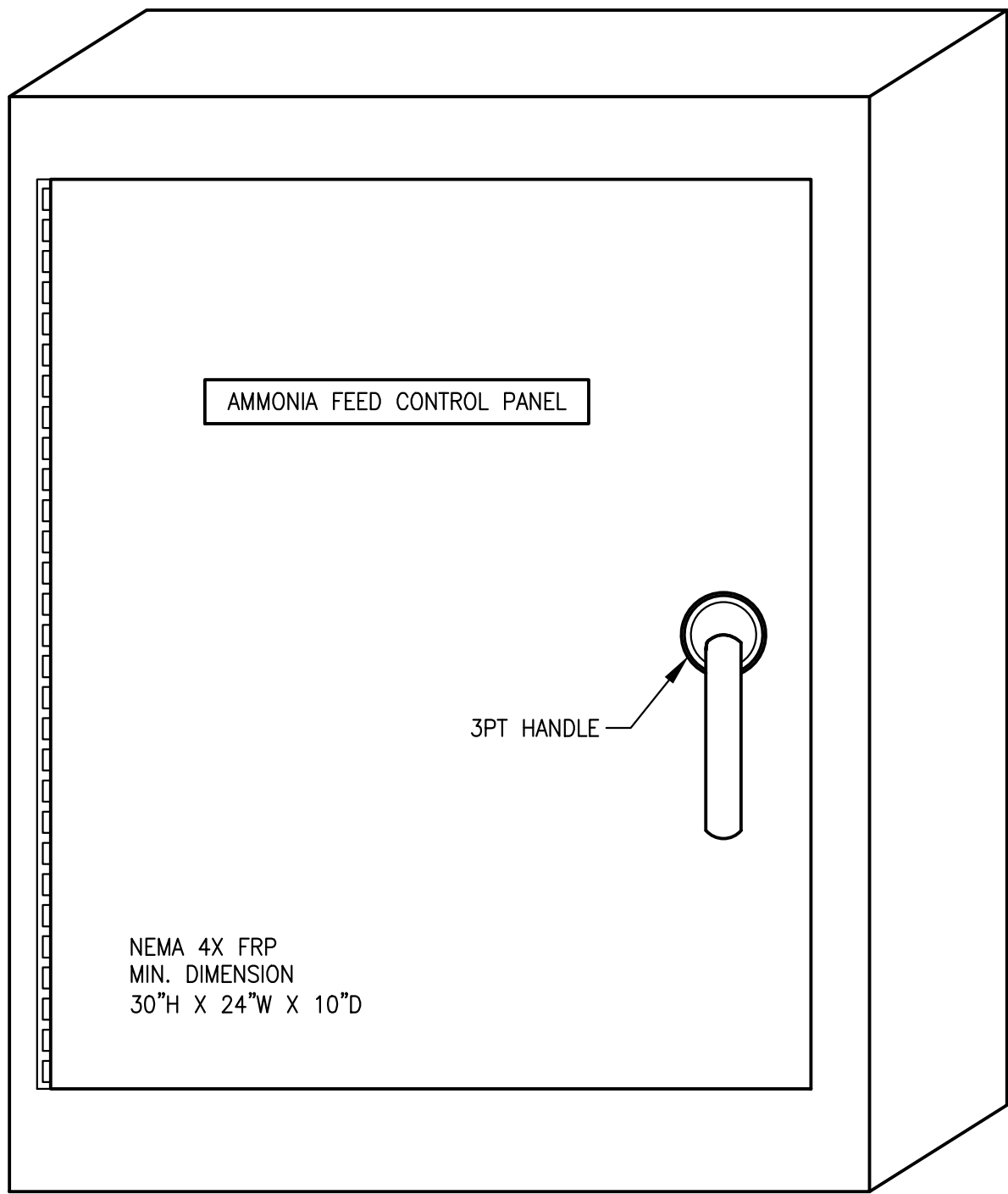
AMMONIA FEED CONTROL PANEL SCHEMATICS

SHEET NUMBER

E-6

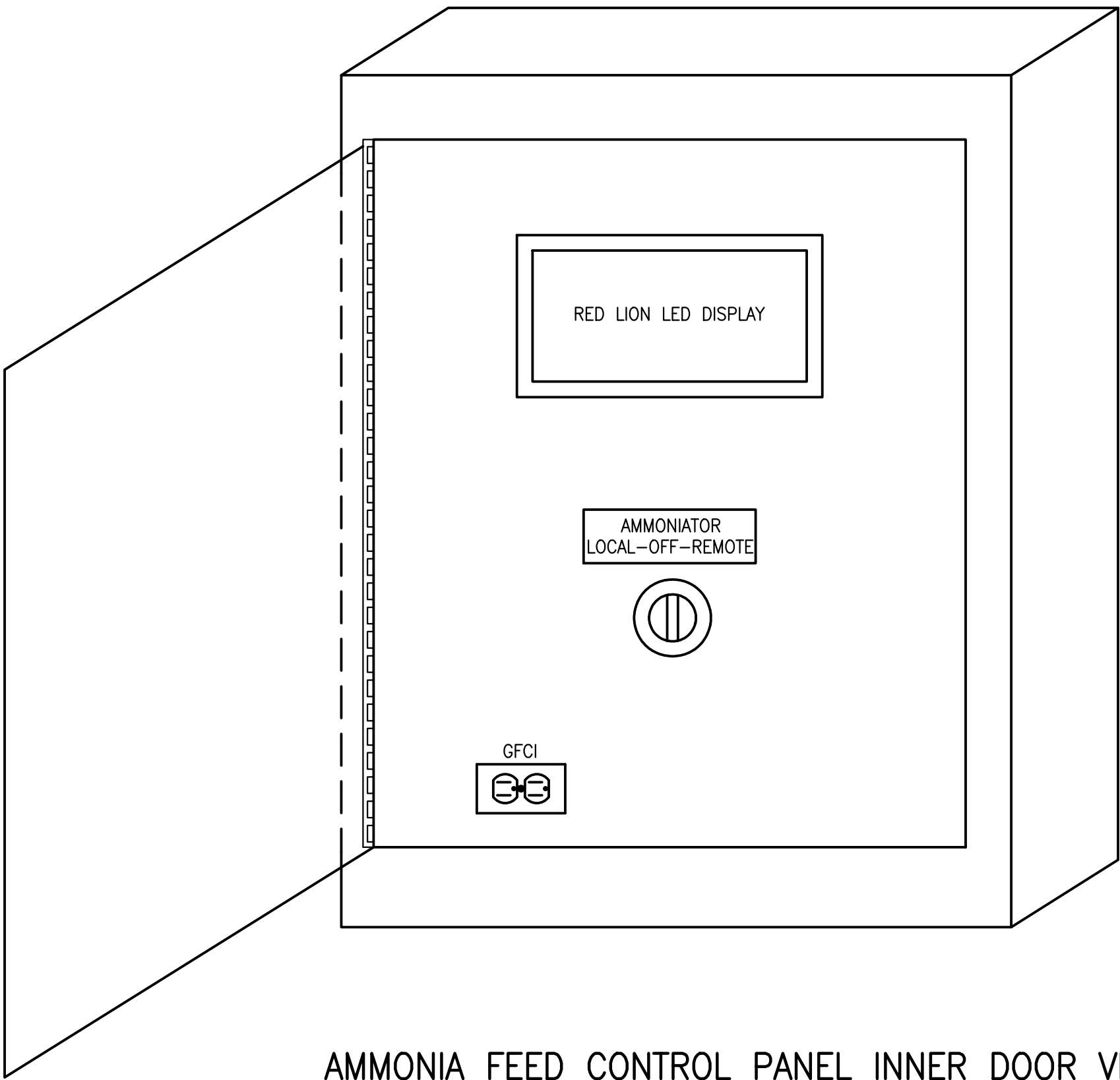
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AMMONIA FEED CONTROL PANEL DEADFRONT VIEW

NTS



AMMONIA FEED CONTROL PANEL INNER DOOR VIEW

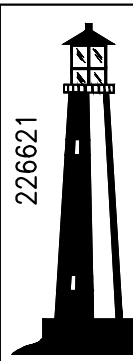
NTS

GENERAL ELECTRICAL NOTES

- SEE DRAWING E-6 FOR WIRING DIAGRAM.
- THE FLOW CONTROLLER USES ANALOG & POWER TERMINALS TO INTERFACE WITH FIELD DEVICES. THE CONTRACTOR SHALL COORDINATE ACCORDINGLY AND LAND ALL FIELD WIRING ON FIELD TERMINAL BLOCK. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INTERFACING WITH FIELD DEVICES.
- ENCLOSURE SHALL BE DEAD FRONT CONSTRUCTION WITH 3-POINT LATCH, HANDLE AND SWINGING INNER DOOR KIT.
- ALL FIELD WIRING SHALL BE TERMINATED ON A FIELD TERMINAL BLOCK OR SURGE PROTECTIVE DEVICE.
- THE CONTRACTOR SHALL FURNISH AND INSTALL MANUFACTURER'S RECOMMENDED CABLES AND FOLLOW THEIR RECOMMENDATION FOR TERMINATIONS BETWEEN THE MASS FLOW CONTROLLER AND THE PLC I/O. COORDINATE REQUIREMENTS WITH INSTALLING CONTRACTOR.
- THE INPUT TO THE CONTROL PANEL WILL BE 120VA, 1-PHASE 60HZ AND SUPPLIED BY DIVISION 16. ALL OTHER VOLTAGES SHALL BE DERIVED FROM WITHIN THE CONTROL PANEL.
- THE FLOW CONTROLLER SHALL BE INSTALLED WITH OPTIONAL PANEL MOUNT KIT AND 24VDC POWER SUPPLY.
- THE CONTROL PANEL SHALL BE CONSTRUCTED BY A UL508A PANEL SHOP AND BEAR A UL508A LABEL.
- FURNISH AND INSTALL PHENOLIC TAGS FOR PANEL AND SELECTOR SWITCH.

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MICHAEL A. GUIDA, P.E. 60755

No.	REVISIONS	DATE	BY



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KHA PROJECT	140593012
DATE	JUN 2024
SCALE	AS SHOWN
DESIGNED BY	JLR
DRAWN BY	YGC
CHECKED BY	MAG

**MAIN WTP AMMONIA FEED
SYSTEM IMPROVEMENTS**

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

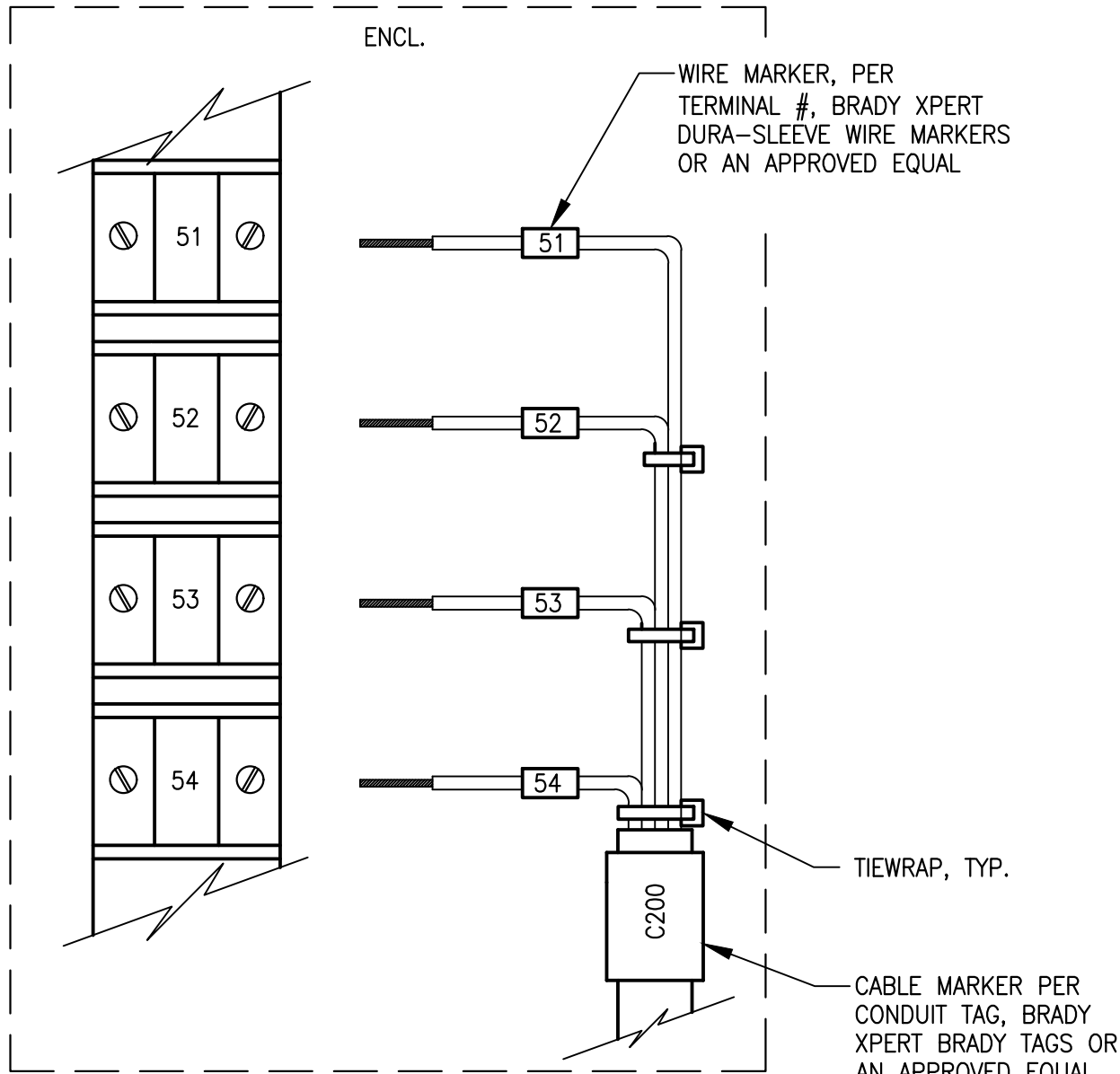
**AMMONIA FEED CONTROL
PANEL DETAILS**

SHEET NUMBER

E-7

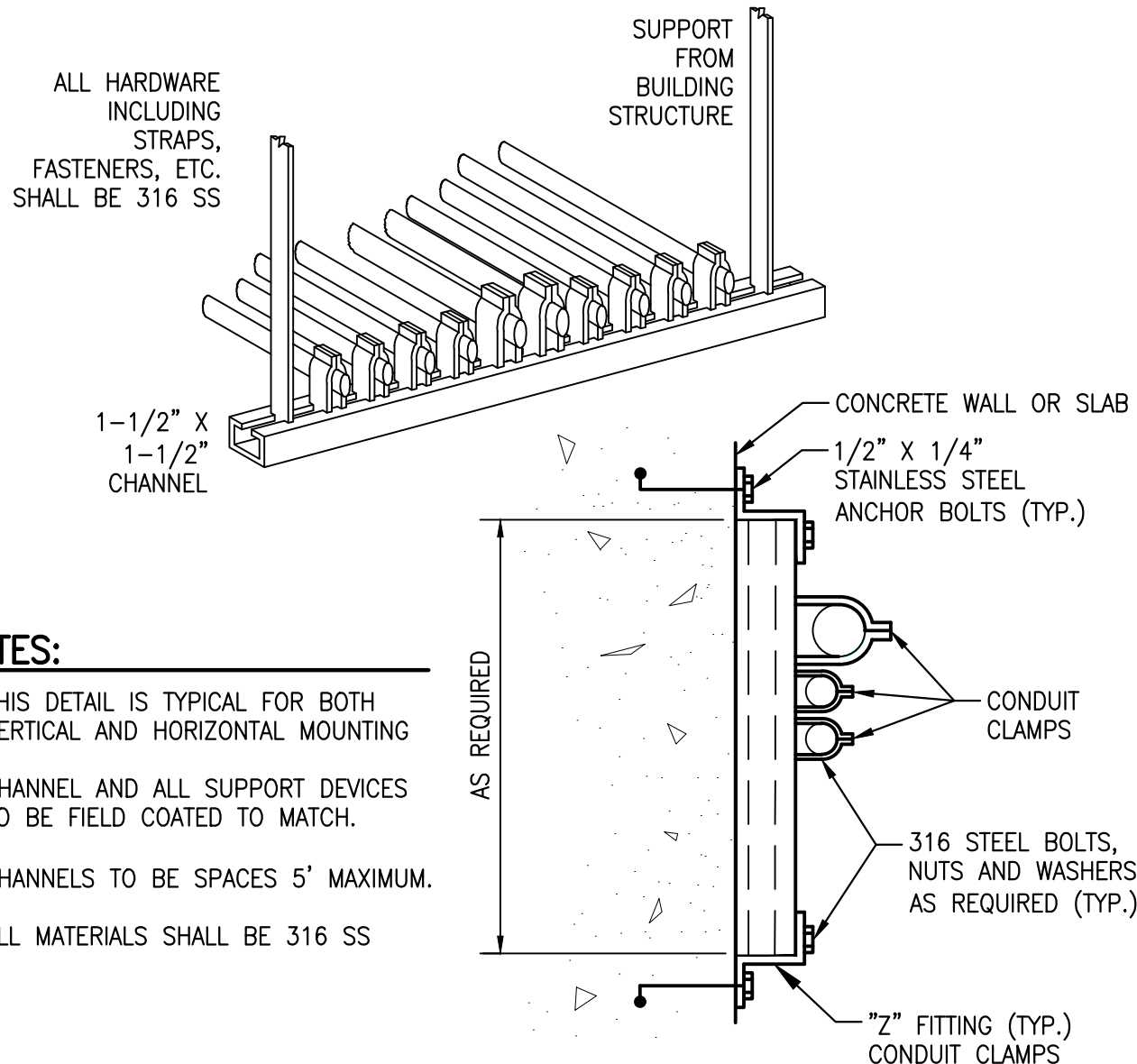
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TERMINATION EXAMPLE DETAIL

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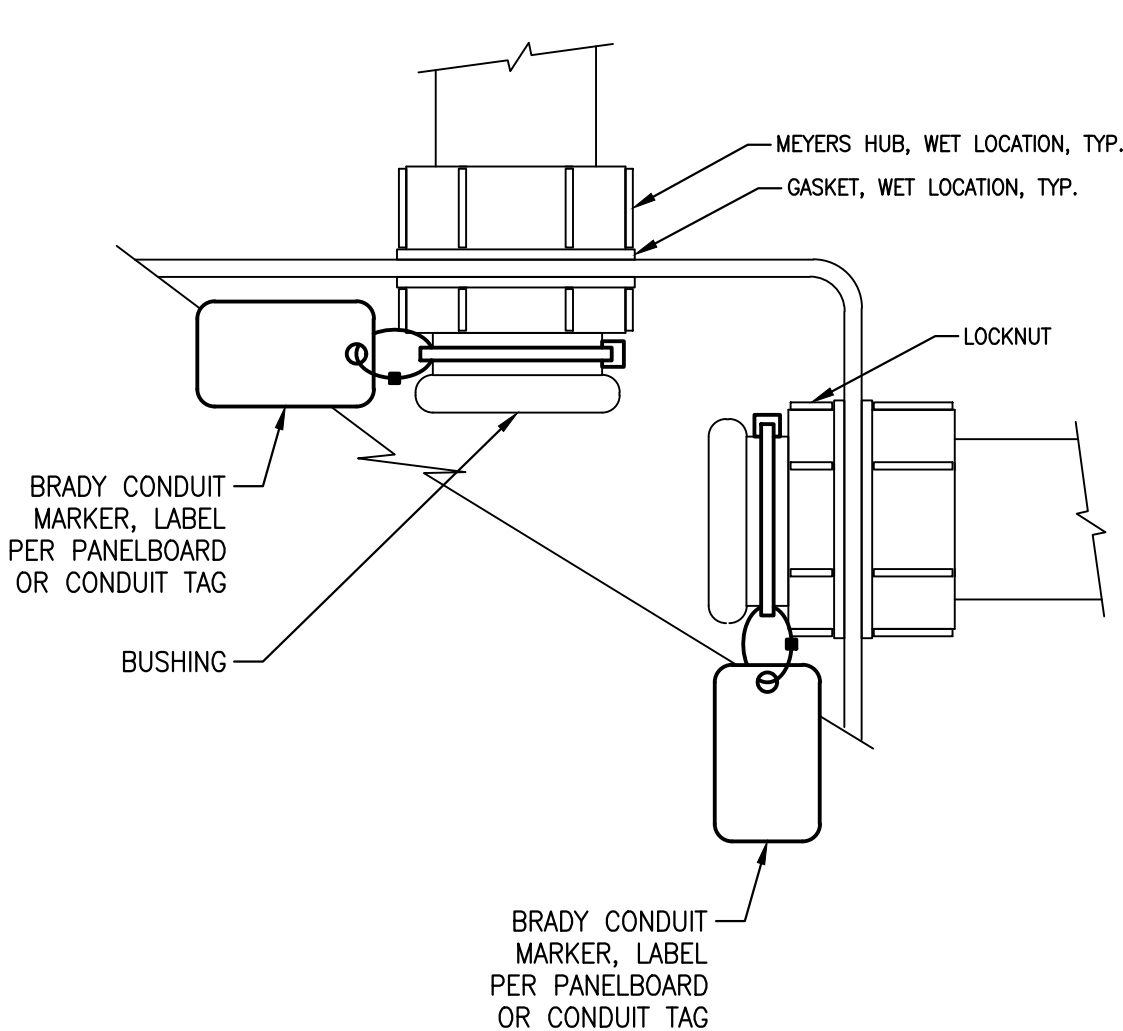


NOTES:

1. THIS DETAIL IS TYPICAL FOR BOTH VERTICAL AND HORIZONTAL MOUNTING
2. CHANNEL AND ALL SUPPORT DEVICES TO BE FIELD COATED TO MATCH.
3. CHANNELS TO BE SPACES 5' MAXIMUM.
4. ALL MATERIALS SHALL BE 316 SS

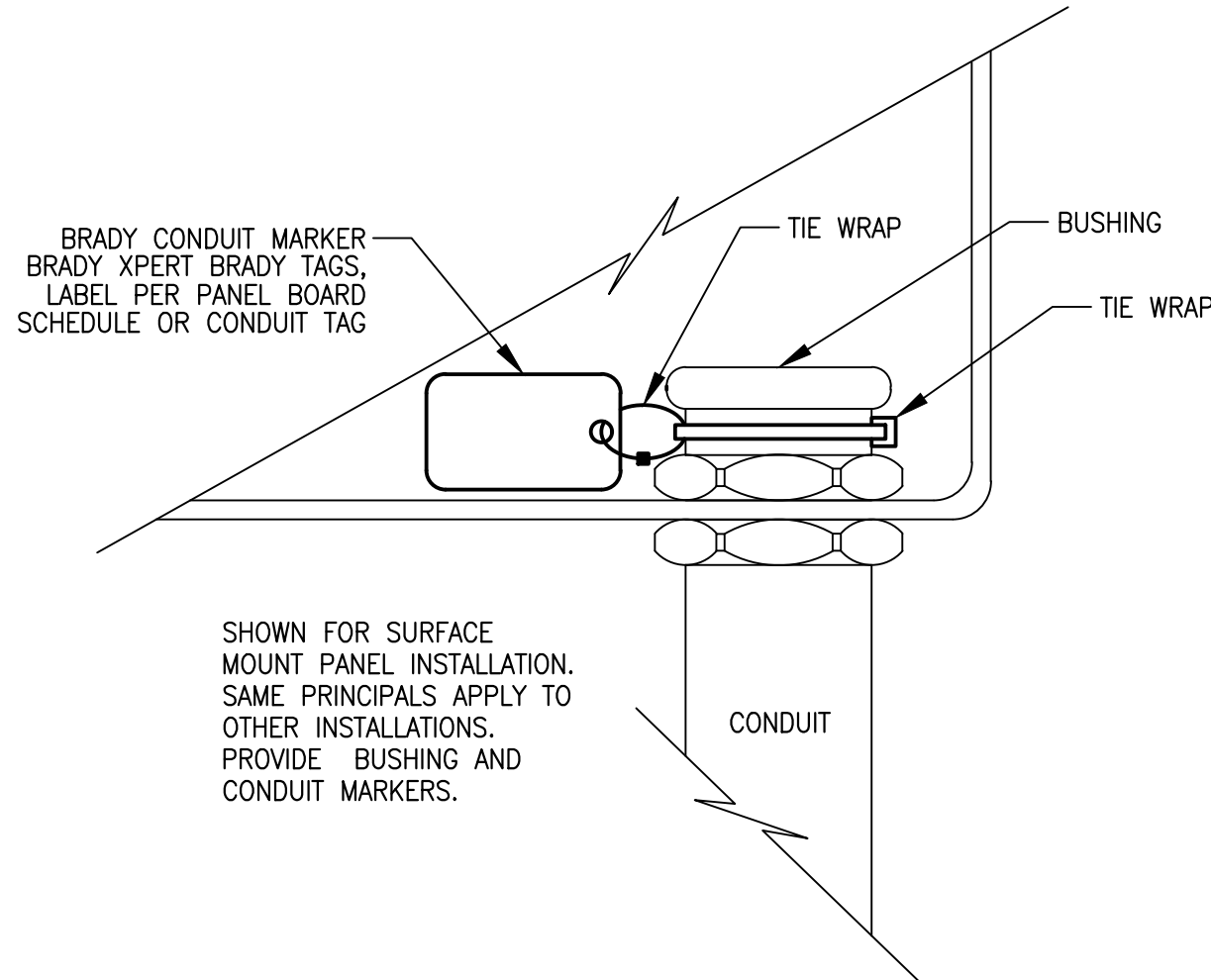
INSTALLATION DETAIL

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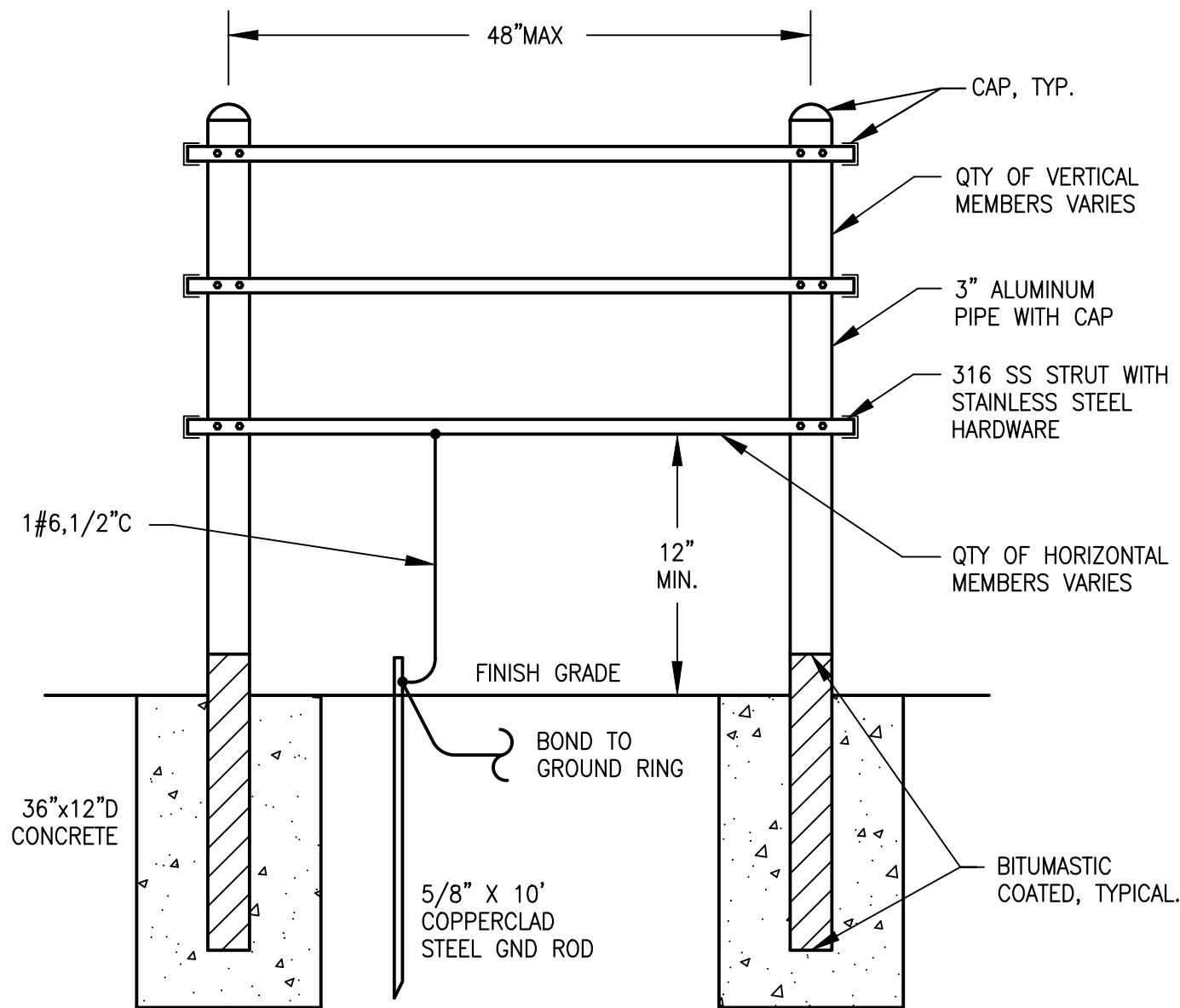
CONDUIT TERMINATION DETAIL

NTS



CONDUIT DETAIL

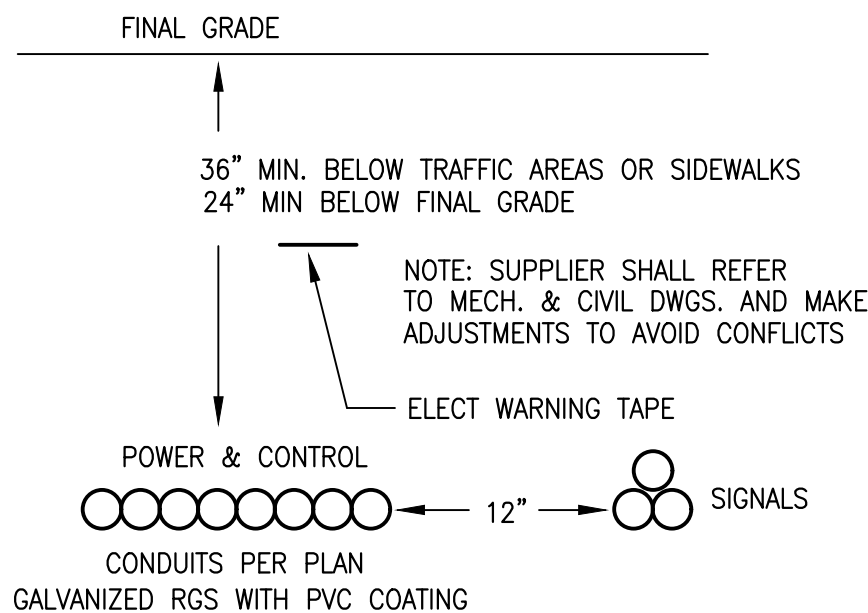
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PIPE STAND, CONCRETE MOUNT

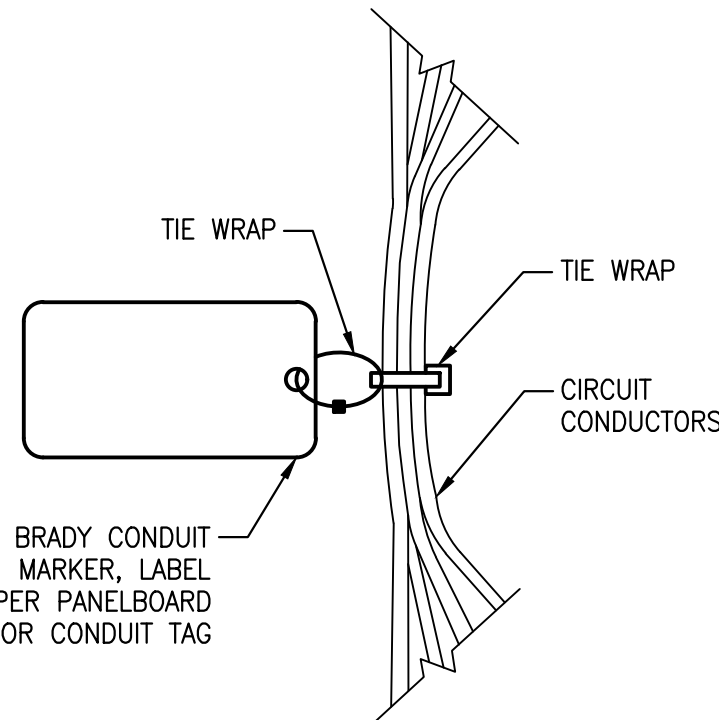
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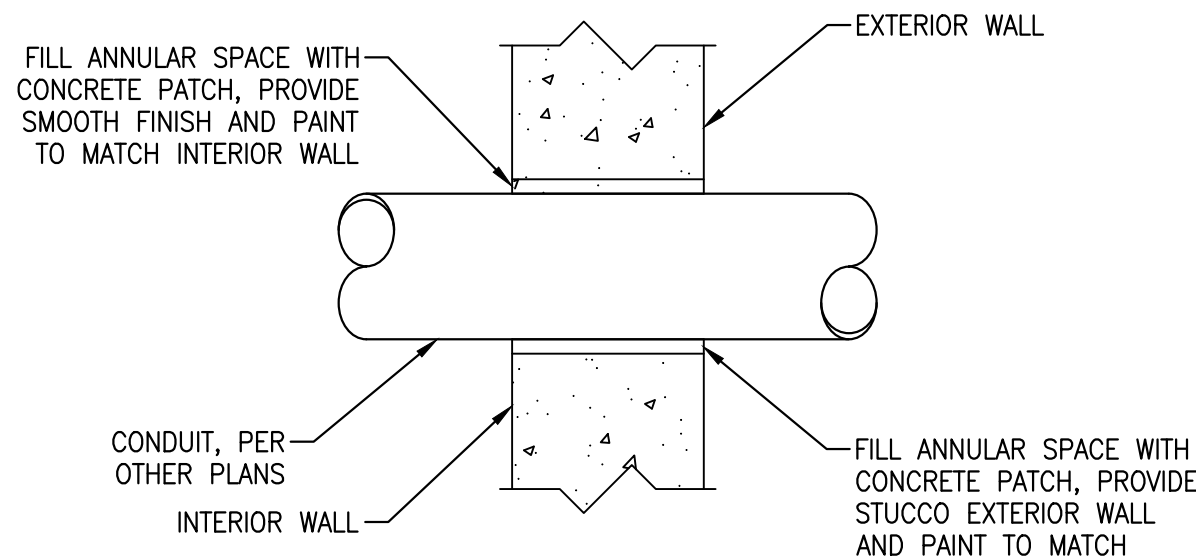
DIRECT BURIED CONDUIT

NTS



CIRCUIT MARKER DETAIL

NTS



WALL CONDUIT PENETRATION DETAIL

NTS

B

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KHA PROJECT	140593012
DATE	JUN 2024
SCALE	AS SHOWN
DESIGNED BY	JLR
DRAWN BY	YGC
CHECKED BY	MAG

**MAIN WTP AMMONIA FEED
SYSTEM IMPROVEMENTS**
PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

DATE: _____

ELECTRICAL DETAILS

SHEET NUMBER

E-8

19 OF 19

MAIN AND RL PRATT WATER TREATMENT PLANT AMMONIA SYSTEM IMPROVEMENTS

Prepared For:
Village of Palm Springs

Prepared By:
Kimley-Horn and Associates, Inc.
1920 Wekiva Way, Suite 200
West Palm Beach FL 33411
Ca 00000696

JULY 2024
PROJECT NO. 140593011/140593012

SECTION 01000

TABLE OF CONTENTS

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Appendix A	PBCHD Permit No. 1382870211-WC

SECTION 01010
SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK COVERED BY THESE CONTRACT DOCUMENTS

- A. Furnish all labor and materials necessary to construct the proposed flow-paced feed control systems, thermal mass flow meters & controllers, chlorine and monochloramine analyzers, pumps, valves, piping, injection assemblies, instrumentation, wiring, conduit and any other items as depicted in these documents to provide a complete and functional system for the Main and RL Pratt WTPs. Work in this contract also includes demolition of the existing ammonia feed system downstream from ammonia chemical supply tank, upon successful startup and Owner acceptance of new facilities. To be accepted by the owner and considered in beneficial use, each ammonia system shall be fully operational for two (2) consecutive weeks after startup, all functional testing and any final adjustments have been performed. Demolition of the existing ammonia system at each facility is only allowed after the ammonia system at the corresponding facility is in beneficial use.
- B. Contractor's Duties:
 - 1. Except as specifically noted, provide and pay for:
 - a. Mobilization and demobilization.
 - b. Labor, materials, and equipment.
 - c. Tools, construction equipment, and fuel.
 - d. Electric, water and utilities required for construction.
 - e. Freight and sales tax.
 - f. Testing and laboratory services.
 - g. Surveying and field engineering.
 - h. Record Information in a format acceptable to the Engineer. Information will be used by the Engineer for Record Drawing development.
 - i. Compliance with all of the conditions of the permits issued for this project.
 - j. Construction dewatering (if required).

1.2 CONTRACTS

- A. Construct the Work under a Lump Sum Price contract in accordance with the contract documents and with the Owner.
- B. Subcontractors (when used) shall work directly for the contractor.
- C. Contractor shall utilize the services of Revere Controls to provide the integration and PLC/SCADA programming.

1.3 WORK BY OTHERS AND FUTURE WORK

- A. The Owner reserves the right to add to the work in accordance with the Contract Documents.
- B. The Owner reserves the right to direct purchase significant pieces of equipment and/or materials included in this contract by means of a deductive Change Order to this Contract and issuance of a Purchase Order to the supplier or vendor of the equipment or materials for the purpose of the sales tax end use savings.

1.4 WORK SEQUENCE

- A. Sequence of work will be discussed and decided prior to the start of the project. The contractor shall proceed in a manner that is logical for the progression of work.
- B. Certain areas may be assigned priority to accommodate Owner's needs.
- C. Demolition of existing ammonia system shall occur after startup and acceptance of new ammonia feed system.

1.5 CONTRACTOR-FURNISHED PRODUCTS AND RESPONSIBILITIES

- A. Products furnished to the site and paid for by Contractor: All products necessary to complete the work described herein these contract documents and specifications to provide a complete and functional ammonia feed system.
- B. Contractor's Responsibilities:
 - 1. Review and incorporate Owner-reviewed shop drawings, product data, and samples into the construction of the project.
 - 2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
 - 3. Repair or replace items damaged after receipt.
 - 4. Arrange and pay for product delivery to site.
 - 5. Handle, store, protect and install all delivered products.
 - 6. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 - 7. Arrange for manufacturers' warranties, inspections, and service.

1.6 PERMITS REQUIRED

- A. The Owner will obtain the appropriate FDEP/PBCHD permit for the project.
- B. The Contractor shall be responsible for submitting and securing the building permit from the local Authority Having Jurisdiction (AHJ).
 - 1. The Contractor shall pay all permit fees, after which the Owner will reimburse the Contractor in full.
- C. No other permits are anticipated to be required for this project.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

- END OF SECTION -

SECTION 01150
MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SCOPE OF THIS SECTION

- A. The following explanation of the Measurement and Payment for the Schedule of Payment items is provided; however, the omission or reference to any item shall not alter the intent of the Bid Form or relieve the Contractor of the necessity of constructing a complete project under this Contract.
- B. The quotations prepared by the Contractor for the various items of work are intended to establish a total price for completion of the work in its entirety. Should the Contractor feel that the cost for any particular work item has not been established by the Bid Items or this Section, the Contractor shall notify the Owner prior to submitting a Bid. If no notice is provided by Contractor to the Owner at least three days prior to the date Bids are due, Owner will expect that the submitted Bid includes all costs to complete the Work in its entirety.
- C. The Owner reserves the right to increase or decrease the quantity of any item or portion of the work during the progress of construction in accordance with the terms of the Contract.
- D. Unit prices, if used, are used as a means for computing the bid, for Contract purposes, for periodic payments, for determining value of additions or deletions.
- E. Payment shall be made for the items listed on the Bid Form on the basis of the work actually performed and completed, such work including but not limited to, the furnishing of all necessary labor, materials, equipment, tools, transportation, delivery, disposal of waste and surplus material, and backfilling as shown in the plans, and all other appurtenances to complete the construction and installation of the work as shown on the drawings and described in the specifications. estimated quantities
- F. Where quantities are shown they are approximate and are given only as a basis of calculation upon which the award of the contract is to be made. The Owner or ENGINEER do not assume any responsibility for the final quantities, nor shall CONTRACTOR claim misunderstanding because of such estimate of quantities. Final payment will be made only for the satisfactorily completed quantity of each item.

1.2 SUBMITTALS

- A. Project Unit Costs and Payment Information:
 - 1. Schedule of Values to provide a breakdown of the work within each unit price item.
 - 2. Application for Payment
 - 3. Final Application for Payment
 - 4. Submittals shall be in accordance with Section 01300.

1.3 SCHEDULE OF VALUES

- A. Contractor shall prepare a detailed schedule of values for Owner's review with the signed Agreement to the Owner. The schedule shall contain sufficient detail quantifying the component parts of Work for the purpose of making monthly progress payments during the construction

period. Monthly progress payments will be based on the percentage of work demolished, procured, prepared, installed, completed, and accepted by the Owner.

- B. The schedule shall contain sufficient detail for proper identification of work accomplished. The sum of all scheduled items shall equal the total value of the contract. The sum of the breakdown of each Bid Item shall equal the total value of the Bid Item.
- C. Unit Price Work: Reflect unit price quantity and price breakdown from the conformed bid form.
- D. Lump Sum Work:
 - 1. Reflect Schedule of Values
 - 2. List Bonds and Insurance, Mobilization, Demobilization, Facility Startup and Contract Closeout separately.
 - 3. Breakdown Divisions 2 through 17 with appropriate subdivision of each Specification.
- E. An unbalanced, front end loaded schedule will not be accepted by Owner.

1.4 APPLICATION FOR PAYMENT

- A. Include accepted schedule of values for each portion of work and the unit price breakdown for the work to be paid on a unit price basis, and a listing of Owner selected equipment, if applicable, and allowances, as appropriate.
- B. Preparation:
 - 1. List each Change Order and Written Amendment executed prior to date of submission as a separate line item.
 - 2. Submit application for payment, a listing of materials on hand as applicable, and such supporting data as may be requested by the Owner/Engineer.
 - 3. Include Owner's Application for Payment Cover Sheet and partial or full releases of liens, as appropriate, for all subcontractors, suppliers, and Contractor.

1.5 COSTS INCLUDED IN PAYMENT ITEMS

- A. No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work.
 - 1. Clearing and grubbing.
 - 2. Trench excavation, including necessary pavement removal, except as otherwise specified.
 - 3. Structural fill, backfill, density testing and grading.
 - 4. Replacement of unpaved roadways, grass and shrubbery plots.
 - 5. Cleanup.
 - 6. Foundation and borrow materials, except as hereinafter specified.
 - 7. Testing and placing existing AND new systems in operation, as described in the contract documents.
 - 8. Any material and equipment required to be installed and utilized for tests.
 - 9. Maintaining the existing quality of service during construction.
 - 10. Maintaining or detouring of the traffic, with all equipment and manpower to comply with Roadway and Traffic Standards, FDOT Indices 600, 601, 602, 603, 605, 607, 611, 612, 613, 616, 617, 618, 619, 625, 628, 630, and 635.
 - 11. Appurtenant work as required for a complete and operable system.
 - 12. Cost for security (if special circumstances apply, approval must be received by the Engineer, in writing).
 - 13. Record drawings.

14. Distribution of door hangers.
15. Material storage areas.
16. Disposal of excess fill and debris.
17. Scheduling and calling for utility locates.
- B. Cleanup Contractor's attention is called to the fact that cleanup is considered a part of the work of construction. No payment will be made until cleanup is essentially complete.
- C. Work Outside Authorized Limits No payment will be made for work constructed outside the authorized limits of work.

1.6 CHANGE ORDER PROCEDURE

- A. As defined in the General Conditions, a Change Order is a written order to the CONTRACTOR signed by the Owner authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time which is issued after the execution of the Agreement.
- B. The following procedure shall be used in processing Change Orders:
- C. For Additions to the Work:
 1. The Owner shall issue a written order to the CONTRACTOR directing them to accomplish the additional work. The CONTRACTOR shall review the order and if they feel that the additional work entitles them to additional payment or additional time, they may submit a claim as prescribed in the General Conditions of the Contract.
- D. For Deletions from the Work:
 1. The Owner shall issue a written order to the CONTRACTOR directing them to make the change. If the Owner feels that the contract price should be reduced as a result of the change, the Owner shall make a claim for the reduction as provided in the General Conditions of the Contract.
- E. Cost of the changes in the work shall be determined in accordance with the requirements spelled out in the General Conditions of the Contract. Modifications to incorporate the changes in cost will be made as the amount of any change is determined.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 BID ITEMS

- A. Bid item #1 – Mobilization/De-mobilization
 1. The quantity to be paid for under this Section shall be on a lump sum basis. The Contractor's lump sum price shall include full compensation for all work related to mobilization and demobilization, and any other related work, except for any work designated to be paid for separately or to be specifically included in the costs of other work under the Contract.
 2. Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall include, but not be limited to, the preparatory work and operations in mobilizing for beginning work on the project, including those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site and establishment of temporary provisions, controls, and utilities. This item shall include those permits that are required to be

obtained by the contractor. This item shall also include field surveying/layout and complete record drawings in accordance with the project specifications and the applicable standards.

3. The items specified in this Section consist of the costs of any pre and post construction expenses necessary for the start and completion of the project, excluding the cost of construction materials. The sum of mobilization and demobilization shall not exceed 10% of the contract price. Partial Payments for mobilization shall be as follows:

<u>Construction Percent</u> <u>Complete Lump</u>	<u>Allowable Percent of</u> <u>Sum for Mobilization</u>
5%	25%
10%	50%
25%	75%
100%	100%

B. Bid Item #2 – Bonds and Insurance

1. Method of Measurement: The quantity to be paid for under this Section shall be on a lump sum basis. The work specified in this Section consists of securing the appropriate bonds and insurance policies in the amounts specified by the contract documents.
2. Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall include all compensation for bonds, insurance and indemnification in accordance with the Contract documents.

C. Bid item #3 – Main WTP Anhydrous Ammonia System

1. The quantity to be paid for under this Section shall be on a lump sum basis, based on the percentage of the Item completed, and accepted by Owner.
2. Basis of Payment: Payment shall be at the Contract Lump Sum Price and shall include, but not limited to, furnishing all materials, labor, and equipment required to construct the new anhydrous ammonia feed system including all piping, valves, fittings, mass flow controllers, piping supports, rotameters, sample pump and piping, filter elements, and injector. Work also includes construction of electrical equipment including conductors, conduit, cable, supports, disconnects, panels, breakers, pull boxes, residual analyzers, grounding, surge protection and any other items shown on the contract drawings and required for a complete and functional system. and any other items shown on the contract drawings and required for a complete and functional system. Work also includes demolition of existing equipment identified in the drawings upon successful startup and operation of the new system. This bid item also includes the programming and integration work necessary to implement the proposed improvements.

D. Bid Item #4 – Main WTP Contingency/Allowance

1. Included in this allowance is work associated with undefined conditions or reasonably anticipated conditions associated with the Work. This is an allowance, to be used solely at the discretion of the Owner and any to be completed under this item must be specifically approved in writing by the Owner, prior to the Work being initiated. Owner must approve in writing the mutually agreed upon total cost and additional time (if any) associated with said Work. Any work completed by the Contractor, under this Bid/Pay Item without the Owner's prior written approval will not be approved for payment by the Owner. The Owner reserves the right to award any, all, or none of the money associated with this allowance.

E. Bid item #5 – RL Pratt WTP Anhydrous Ammonia System

1. The quantity to be paid for under this Section shall be on a lump sum basis, based on the percentage of the Item completed, and accepted by Owner.
 2. Basis of Payment: Payment shall be at the Contract Lump Sum Price and shall include, but not limited to, furnishing all materials, labor, and equipment required to construct the new anhydrous ammonia feed system including all piping, valves, fittings, mass flow controllers, piping supports, rotameters, sample pump and piping, filter elements, and injector. Work also includes construction of electrical equipment including conductors, conduit, cable, supports, disconnects, panels, breakers, pull boxes, residual analyzers, grounding, surge protection and any other items shown on the contract drawings and required for a complete and functional system. and any other items shown on the contract drawings and required for a complete and functional system. Work also includes demolition of existing equipment identified in the drawings upon successful startup and operation of the new system. This bid item also includes the programming and integration work necessary to implement the proposed improvements.
- F. Bid Item #4 – RL Pratt WTP Contingency/Allowance
1. Included in this allowance is work associated with undefined conditions or reasonably anticipated conditions associated with the Work. This is an allowance, to be used solely at the discretion of the Owner and any to be completed under this item must be specifically approved in writing by the Owner, prior to the Work being initiated. Owner must approve in writing the mutually agreed upon total cost and additional time (if any) associated with said Work. Any work completed by the Contractor, under this Bid/Pay Item without the Owner's prior written approval will not be approved for payment by the Owner. The Owner reserves the right to award any, all, or none of the money associated with this allowance.

3.2 NON-PAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
1. Loading, hauling, and disposing of rejected material.
 2. Quantities of excavated material wasted or disposed of in manner not called for under Contract Documents.
 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provisions of Contract Documents.
 4. Material not unloaded from transporting vehicle.
 5. Defective Work not accepted by Owner.
 6. Material remaining on hand after completion of Work.

3.3 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial Payment: No partial payments will be made for materials and equipment delivered or stored for this project.
- B. Final Payment: Will be made only for products incorporated in Work; remaining products, for which partial payments have been made, shall revert to Contractor unless otherwise agreed, and partial payments made for those items will be deducted from final payment.
- C. Final Payment will not be made until all Record Drawings are acceptable to Owner/Engineer, Operation and Maintenance Manuals are final and acceptable to Owner/Engineer, final release of liens have been received for Contractor, Sub-contractor, suppliers, and vendors, all spare parts

have been received (by Owner), and all punch list items are complete and acceptable to Owner/Engineer.

- END OF SECTION -

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Contractor shall submit to the Engineer, shop drawings, project data and samples required by specification sections.

1.2 SCHEDULES

- A. Contractor shall prepare and submit a Construction Schedule.
- B. Contractor shall prepare and submit a separate schedule listing dates for submission of shop drawings and projected return dates.
- C. Schedules shall be updated and re-submitted on a monthly basis throughout the duration of the project.
- D. Contractor shall prepare and submit two-week look ahead schedules bi-weekly throughout duration of the project.
- E. Contractor shall coordinate all work with OWNER operations staff. Construction activities that impact operations require 48 hours advance notice and approval from the OWNER.

PART 2 - PRODUCTS

2.1 SHOP DRAWINGS

- A. Original drawings, prepared by Contractor, Subcontractor, Supplier or Distributor, which illustrate portions of the Work; showing fabrication, layout, setting, or erection details including, but not limited to the following:
 - 1. Thermal Mass Flow Meters
 - 2. Automatic Controllers
 - 3. Monochloramine Analyzers
 - 4. Total chlorine analyzers
 - 5. Rotameters
 - 6. Piping, valves, fittings, etc.
 - 7. Concrete mix designs (with specific locations), grouts, etc.
 - 8. Concrete reinforcement
 - 9. Electrical equipment, conductors, conduit, etc.
 - 10. Instrumentation
 - 11. Miscellaneous metals
- B. Prepare submittals by a qualified detailer.
- C. Identify details by reference to sheet numbers and detail shown on Contract Drawings.

2.2 PROJECT DATA

- A. Manufacturer's standard schematic drawings:
 - 1. Modify drawings to delete information which is not applicable to project.
 - 2. Supplement standard information to provide additional information applicable to project.

- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
 - 1. Clearly mark each copy to identify pertinent materials, products or models.
 - 2. Show dimensions and clearances required.
 - 3. Show performance characteristics and capacities.
 - 4. Show wiring diagrams and controls.

2.3 SAMPLES

- A. Physical examples to illustrate materials, equipment, or workmanship, and to establish standards by which completed work is judged.
- B. Office samples of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of product or material, with integrally related parts and attachment devices.
 - 2. Full range of color samples.

2.4 PAY REQUESTS

- A. Pay Requests shall be made in accordance with the requirements of the Agreement between Owner and Contractor. Payment requests shall include updated schedules as required in required 01300-1.2.

PART 3 - EXECUTION

3.1 SUBMISSION REQUIREMENTS

- A. Schedule submissions at least 14 days before dates reviewed submittals will be needed.
- B. Submit number of copies of Shop Drawings, Project Datum and Samples which Contractor requires for distribution plus 4 copies for the Owner and Engineer.
- C. Accompany submittals with transmittal letter, in duplicate, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Notification of deviations from Contract Documents.
 - 5. Other pertinent data.
- D. Submittals must include:
 - 1. Date of submittal and revision dates.
 - 2. Project title and number.
 - 3. The names of:
 - a. Engineer.
 - b. Contractor.
 - c. Subcontractor.
 - d. Supplier.
 - e. Manufacturer.
 - f. Separate detailer when pertinent.
 - 4. Identification of product or material.
 - 5. Relation to adjacent structure or materials.
 - 6. Field dimensions, clearly identified as such.

7. Identification of deviations from Contract Documents.
8. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract Documents.

3.2 RESUBMISSION REQUIREMENTS

- A. Shop Drawings:
 1. Revise initial drawings as required and resubmit as specified for initial submittal.
 2. Clearly indicate on shop drawings all changes or revisions which have been made other than those requested by Engineer.
 3. Re-submittals without all comments from original review addressed will be returned to the contractor.
- B. Project Data and Samples:
 1. Submit new datum and samples as required for initial submittal.

3.3 DISTRIBUTION OF SUBMITTALS AFTER REVIEW

- A. Distribute copies of Shop Drawings and Project Datum which carry Engineer's stamp, to:
 1. Contractor's file.
 2. Job site file.
 3. Record Documents file.
 4. Other prime contractors.
 5. Subcontractors.
 6. Supplier.
 7. Fabricator.
- B. Distribute samples as directed.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 01410

TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Contractor shall employ and pay for services of an Independent Testing Laboratory to perform specified services.
- B. Inspection, Sampling and Testing is required for:
 - 1. Densities and proctors (for soil compaction)
 - 2. Cast-in-place Concrete (slump and compressive strength)
 - 3. Painting
 - 4. Other operations specified in these specifications or as required by the Engineer.
- C. Contractor's employment of Testing Laboratory shall in no way relieve Contractor of their obligation to perform Work in accordance with Contract.

1.2 QUALIFICATION OF LABORATORY

- A. Meet "Recommended Requirements for Independent Laboratory Qualification", latest edition, published by American Council of Independent Laboratories.
- B. Meet basic requirements of ASTM E 329-90 "Standard Practice for Use in the Evaluation of Testing Agencies for Concrete and Steel as Used in Construction".
- C. Certified in the State of Florida in accordance with FDEP requirements.

1.3 LABORATORY DUTIES; LIMITATIONS OF AUTHORITY

- A. Cooperate with Engineer and Contractor; provide qualified personnel promptly on notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specified standards; ASTM, other recognized authorities, and as specified.
 - 2. Ascertain compliance with requirements of Contract Documents.
- C. Promptly notify Engineer, and Contractor, of irregularities or deficiencies of Work which are observed during performance of services.
- D. Promptly submit 2 copies of reports of inspections and tests to Engineer, including:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Testing Laboratory name and address.
 - 4. Name of Inspector
 - 5. Date of inspection or sampling.
 - 6. Record of temperature and weather.
 - 7. Date of test.
 - 8. Identification of product and specification section.
 - 9. Location in project.
 - 10. Type of inspection or test.
 - 11. Observations regarding compliance with Contract Documents.
- E. Laboratory is not authorized to:
 - 1. Release, revoke, alter, or enlarge on, requirements of Contract Documents.

2. Approve or accept any portion of Work.
3. Perform any duties of the Contractor.

1.4 CONTRACTOR'S RESPONSIBILITIES

- A. Select laboratory, and coordinate testing with Lab and Engineer's representative.
- B. Cooperate with Laboratory personnel, provide access to Work.
- C. Provide to Laboratory, preliminary representative samples of materials to be tested, in required quantities.
- D. Furnish copies of mill test reports.
- E. Furnish casual labor and facilities:
 1. To provide access to Work to be tested.
 2. To obtain and handle samples at the site.
 3. To facilitate inspections and tests.
 4. For Laboratory's exclusive use for storage and curing of test samples.
- F. Notify Laboratory sufficiently in advance of operations to allow for his assignment of personnel and scheduling of tests.
- G. Pay for services of the Testing Laboratory to perform additional inspections, sampling and testing required:
 1. For Contractor's convenience.
 2. When initial tests indicate Work does not comply with Contract Documents.
 3. Such payment shall be made directly by the Contractor.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

- END OF SECTION -

SECTION 01600
MATERIAL AND EQUIPMENT

GENERAL

1.1 DESCRIPTION

- A. The contractor is responsible for transportation, handling, storage, and protection of all proposed equipment to be delivered to the site as part of this project.
- B. The contractor is responsible for coordinating all deliveries to the project site with the OWNER.

PRODUCTS

Not used.

EXECUTION

3.1 TRANSPORTATION AND HANDLING

- A. Deliver manufactured materials and products to the project site as needed for installation, undamaged, in original packages, containers, or bundles, as packaged by the manufacturer with manufacturer's name, brand, seals, and labels intact. Materials other than those designated within the specifications shall not be delivered to the project site.

3.2 STORAGE AND PROTECTION

- A. Protect and preserve all materials until final acceptance of the project. Store all materials in a manner to facilitate inspection and to prevent damage, contamination, intermixing, or theft.
- B. Miscellaneous metal, reinforcement bars, welded wire fabric, and masonry reinforcement materials shall be stored to prevent contact with the ground and from being damaged by its own weight or by other loads. Reinforcement which has become muddy shall be cleaned before use.
- C. Store cementitious materials in weathertight sheds on elevated floors away from damp surfaces.
- D. Do not use and dispose of materials that have been stored for longer than their maximum recommended shelf life or beyond their recommend shelf date.
- E. Store and protect all material and equipment in accordance with manufacturer's recommendations.

3.3 PROTECTION OF EQUIPMENT

- A. Keep products clean by elevating above ground or floor and by using suitable coverings. Take such precautions as are necessary to protect apparatus and materials from damage. Failure to protect materials is sufficient cause for rejection of the apparatus or material in question.
- B. Protect factory finish from damage during construction operations and until acceptance of the project. Satisfactorily restore any finishes that become stained or damaged.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 01700
PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Comply with requirements stated in the Agreement between Owner and Contractor and in Specifications for administrative procedures in closing out the Work.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Section 01720 - Project Record Drawings
- B. Section 01730 – Operating and Maintenance Manuals

1.3 SUBSTANTIAL COMPLETION

- A. Substantial completion shall be defined as beneficial use of all proposed equipment. Beneficial use will not occur until the new ammonia feed system has been installed, tested, connected to the system piping, and accepted by the Owner and Engineer of record.
- B. **To be accepted by the owner and considered in beneficial use, each ammonia system shall be fully operational for two (2) consecutive weeks after startup, all functional testing and any final adjustments have been performed.** Demolition of the existing ammonia system at each facility is only allowed after the ammonia system at the corresponding facility is in beneficial use.
- C. The Contractor shall deliver to the Engineer the Record Drawings and a draft copy of the Operations and Maintenance manuals for review and deliver to the Owner a complete set of all spare parts.
- D. When Contractor considers the Work is substantially complete, Contractor shall submit to Engineer:
 - 1. A written notice that the Work or designated portion thereof, is substantially complete.
- E. Within a reasonable time after receipt of such notice, Engineer will perform a field investigation to determine the status of completion.
- F. Should Engineer determine that the Work is not substantially complete:
 - 1. Engineer will promptly notify the Contractor in writing, giving the reasons therefore.
 - 2. Contractor shall remedy the deficiencies in the Work, and send a second written notice of substantial completion to the Engineer.
 - 3. Engineer will reinvestigate the Work.
- G. When the Engineer finds that the Work is substantially complete, he will:
 - 1. Prepare and deliver to Owner a tentative Certificate of Substantial Completion, with a tentative list of items to be completed or corrected before final payment.
 - 2. After consideration of any objections made by the Owner and when Engineer considers the Work substantially complete, he will execute and deliver to the Owner and the Contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

1.4 FINAL SITE REVIEWS

- A. When Contractor considers Work is complete, he shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Work has been investigated for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
 - 5. Work is completed and ready for Final Investigation.
- B. Engineer will perform a field investigation to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should Engineer consider that the Work is incomplete or defective:
 - 1. Engineer will promptly notify the Contractor in writing, listing the incomplete or defective work.
 - 2. Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to Engineer that the Work is complete.
 - 3. Engineer will reinvestigate the Work.
- D. When the Engineer finds that the Work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals.

1.5 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

- A. Project Record Drawings to the requirements specified.
- B. Operating and Maintenance Manuals to the requirements specified.
- C. Contractor's affidavit of payment of debts and claims.
 - 1. Contractor's release or waiver of liens.
- D. Separate releases or waivers of liens for subcontractors, suppliers and others with lien rights against property of Owner, together with list of those parties.

1.6 FINAL ADJUSTMENTS OF ACCOUNTS

- A. Submit a final statement of accounting to Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Allowances.
 - c. Unit Prices.
 - d. Deductions for uncorrected Work.
 - e. Deductions for liquidated damages.
 - f. Deductions for re-inspection payments.
 - g. Other adjustments.
 - 3. Total Contract Sum, as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- C. Engineer will prepare a final Change Order reflecting approved adjustments to the Contract Sum which was not previously made by Change Orders.

1.7 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the Condition of the Contract.

1.8 FINAL CERTIFICATE FOR PAYMENT

- A. Engineer will issue final certificate in accordance with provisions of the Contract Documents.

1.9 POST-CONSTRUCTION INSPECTION

- A. Prior to expiration of one year from Date of Substantial Completion, Engineer will make visual field investigation of Project in company with Owner and Contractor to determine whether correction of Work is required, in accordance with provisions of the Contract Documents.
- B. For Guarantees beyond one year, Engineer will make field investigations at request of Owner, after notification to Contractor.
- C. Engineer will promptly notify Contractor, in writing, of any observed deficiencies.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 01720
PROJECT RECORD DRAWINGS

PART 1 - GENERAL

1.1 PROJECT RECORD DOCUMENTS

- A. Maintain at the site for the Owner one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Engineer Field Orders or written instructions.
 - 6. Reviewed Shop Drawings.
 - 7. Field test records.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Conditions of the Contracts
- B. Section 01700 – Project closeout

1.3 MAINTENANCE OF DOCUMENTS

- A. Store documents in approved location apart from documents used for construction.
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents available at all times for inspection by Engineer and Owner. Record drawing information shall be maintained concurrently with Pay Requests and updated project schedules.

1.4 MARKING DEVICES

- A. Provide ink marking pens for recording information in a color code.

1.5 RECORDING

- A. Label each document "PROJECT RECORD" in neat large printed letters.
- B. Record information currently with construction progress.
 - 1. Do not conceal any work until required information is recorded.
- C. Drawings shall be drawn to record actual construction:
 - 1. Field changes of dimension and detail.
 - 2. Changes made by Field Order or by Change Order.
 - 3. Details not on original Contract Drawings.
- D. Specifications and Addenda; Legibly mark each Section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each item actually installed.
 - 2. Changes made by Field Order or by Change Order.

1.6 SUBMITTAL

- A. At Contract Close-out, Record Documents shall be submitted to Engineer in the following formats for Owner:

1. One set on 24" x 36".
- B. Accompany submittal with transmittal letter in duplicate, containing:
 1. Date.
 2. Project title and number.
 3. Contractor's name and address.
 4. Title and number of each record document.
 5. Signature of Contractor or his authorized representative.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

- END OF SECTION -

SECTION 01730

OPERATION AND MAINTENANCE MANUALS

PART 1 - GENERAL

1.1 RELATED INFORMATION

- A. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under the Contract.
 - 1. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of Specifications.
- B. Instruct Owner's personnel in the maintenance of products and in the operation of equipment and systems.
- C. Related Requirements Specified in Other Sections.
 - 1. Section 01300 - Submittals
 - 2. Section 01720 - Project Record Drawings
 - 3. Section 11512 – Ammonia System

1.2 FORM OF SUBMITTALS

- A. Prepare data in the form of an instructional manual and electronic format for use by Owner's personnel.
- B. Hard-Copy Format:
 - 1. Size: 8-1/2 in. x 11 in.
 - 2. Text: Manufacturer's printed data, or neatly typewritten.
 - 3. Drawings:
 - a. Provide reinforced punch binder tab, bind in with text.
 - b. Fold larger drawings to the size of the text pages.
 - 4. Provide fly-leaf for each separate product, or each piece of operating equipment.
 - a. Provide typed description of product, and major component parts of equipment.
 - 5. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS". List:
 - a. Title of Project.
 - b. Identity of separate structure as applicable.
 - c. Identity of general subject matter covered in the manual.
- C. Binders:
 - 1. Commercial quality expandable catalog binders with durable and cleanable plastic covers.
 - 2. When multiple binders are used, correlate the data into related consistent groupings.
- D. Electronic format shall be in .pdf file format. Copies of specific manuals shall either be scanned or converted to .pdf format and submitted on CD disc to Owner. Submit after approval of hard copies from Engineer.

1.3 CONTENT OF MANUAL

- A. Neatly typewritten table of contents for each volume, arranged in a systematic order.
 - 1. Contractor, name of responsible principal, address and telephone number.
 - 2. A list of each product required to be included, indexed to the content of the volume.

3. List, with each product, the name, address and telephone number of:
 - a. Subcontractor or installer.
 - b. Maintenance contractor, as appropriate.
 - c. Identify the area of responsibility of each.
 - d. Local source of supply for parts and replacement.
4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- B. Product Data:
 1. Include only those sheets which are pertinent to the specific product.
 2. Annotate each sheet to:
 - a. Clearly identify the specific product or part installed.
 - b. Clearly identify the data applicable to the installation.
 - c. Delete references to inapplicable information.
- C. Drawings:
 1. Supplement product data with drawings as necessary to clearly illustrate relations of component parts of equipment and systems.
 2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
 3. Do not use Project Record Documents as maintenance drawings.
- D. Written text, as required to supplement product data for the particular installation:
 1. Organize in a consistent format under separate headings for different procedures.
 2. Provide a logical sequence of instructions for each procedure.
- E. Copy of each warranty issued.
 1. Provide information sheet for Owner's personnel, give:
 - a. Proper procedures in the event of failure.
 - b. Instances which might affect the validity of warranties.

1.4 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit six (6) complete copies of manual in final form and two compact discs (CD) in PDF format. CD shall include bookmarks and chapters to closely duplicate that of the paper copy.
- B. Content, for each unit of equipment and system, as appropriate:
 1. Description of unit and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of all replaceable parts.
 2. Operating procedures:
 - a. Start-up, break-in, routine and normal operating instructions.
 - b. Regulation, control, stopping, shut-down and emergency instructions.
 - c. Summer and winter operating instructions.
 - d. Alignment, adjusting and checking.
 3. Servicing and lubrication schedule:
 - a. List of lubricants required for each piece of equipment.
 - b. Schedule for manufacturer recommended maintenance.
 4. Manufacturer's printed operating and maintenance instructions.

5. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
6. Other data as required under pertinent sections of specifications.

1.5 SUBMITTAL SCHEDULE

- A. Submit one copy of completed data in final form fifteen days prior to final inspection or acceptance. Electronic submittal for initial review is acceptable.
 1. Copy will be returned after final inspection or acceptance, with comments.
- B. Submit specified number of copies of approved data in final form 10 days after final inspection or acceptance.

1.6 INSTRUCTION OF OWNER'S PERSONNEL

- A. Prior to final inspection or acceptance, fully instruct Owner's designated operating and maintenance personnel in the operation, adjustment and maintenance of all products, equipment and systems.
- B. Operating and maintenance manual shall constitute the basis of instruction.
 1. Review contents of manual with personnel in full detail to explain all aspects of operations and maintenance.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 02016

EXISTING UTILITIES AND UNDERGROUND STRUCTURES

PART 1 - GENERAL

1.1 GENERAL

- A. The plans depict the approximate location of the existing utilities. The locations of those facilities (horizontal and vertical) were obtained from record drawings. Guarantee is not made that all existing underground utilities are shown or that the location of those shown are entirely accurate. Finding the actual location of any existing utilities is the contractor's responsibility and shall be done before he commences any work in the vicinity. Furthermore, the contractor shall be fully responsible for any and all damages due to the contractor's failure to exactly locate and preserve any and all underground utilities.

1.2 CONTRACTOR'S RESPONSIBILITIES

- A. Contractor shall notify the Sunshine State One Call of Florida (SSOCF) service at 811, 48 hours prior to digging.
- B. Locate the cables, ducts, conduit, pipeline, etc. in advance of the proposed construction.
- C. Notify Engineer of any substantial changes and/or conflicts that would require a deviation in the plans. Late discovery of existing underground utilities does not constitute "required" deviations should early discovery prevent them.
- D. Repair any damage done to existing utilities at no additional expense to the Owner.
- E. Remove or modify those utilities scheduled to be removed or modified on the plans.

1.3 PRECONSTRUCTION VIDEO

- A. At least one (1) week prior to the start of construction, the contractor shall have video recordings taken of the entire project area. This area includes but is not limited to, the entire site work area, the construction staging area, site access driveways, the areas around all of the existing structures, including ground storage tanks, clearwells, buildings, fencing, etc. Such recordings shall be provided to the Owner and Engineer before the commencement of construction. These recordings shall serve as record of the conditions as they existed prior to the start of the work. They will be used in the event of a dispute that arises from restoration or damage claims. The contractor shall pay particular attention to any existing damage within the work area and ensure that these items are documented on the video prior to construction.
- B. Video tapes are to be delivered to the Owner and Engineer on a DVD in a standard video format that is able to be viewed on a Windows operating system. All videotapes shall become the property of the Owner.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

- END OF SECTION -

SECTION 02065

DEMOLITION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. The Contractor shall furnish all supervised labor, materials, equipment, and incidentals required for the removal of all items necessary to be removed in order construct the project as indicated on the plans and in accordance with the specifications.
- B. The Contractor is responsible for removal of all debris from the site and proper disposal of debris.

1.2 CONDITION OF STRUCTURES

- A. By submitting a bid, the Contractor affirms that the Contractor has carefully examined the site and all conditions affecting the Work. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner insofar as practicable.

1.3 RULES AND REGULATIONS

- A. The Building Code of the State of Florida shall control the demolition, modification or alteration of the existing site.
- B. No blasting shall be done on site.

1.4 SUBMITTALS

- A. Contractor shall follow sequence of demolition and construction of proposed equipment as described herein.
- B. Provide a detailed sequence of demolition and removal work as part of the Contractor's schedule.

1.5 ACCESS

- A. Conduct demolition and modification operations, and the removal of equipment and debris to ensure minimum interference with roads and walks both on-site and off-site and to ensure minimum interference with occupied or used facilities.
- B. Special attention is directed towards maintaining safe and convenient access to the existing facilities by Owner's operations personnel and associated vehicles.
- C. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the Owner. Provide alternate routes around closed or obstructed traffic in access ways.

1.6 PROTECTION

- A. The Contractor shall conduct construction activities to minimize damage to adjacent buildings, structures, utilities, storm drainage, and other facilities, including persons.

1.7 DAMAGE

- A. The Contractor shall immediately report damage caused to adjacent facilities by demolition operations. The Contractor shall promptly make all required repairs as directed by the Engineer and at no cost to the Owner.

1.8 UTILITIES

- A. It shall be the Contractor's responsibility to maintain existing utilities in service and protect against damage during demolition operations.

1.9 POLLUTION CONTROL

- A. For pollution control, use sprinkling, temporary enclosures, and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air to the lowest level of air pollution practical for the conditions of work. Comply with the governing regulations.
- B. Clean adjacent structures and improvements of all dust, dirt, and debris caused by demolition operations. Return areas to conditions existing prior to the start of work.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 REMOVAL OF EXISTING EQUIPMENT, PIPING AND APPURTENANCES

- A. Demolition of the existing ammonia system at each facility is only allowed after the ammonia system at the corresponding facility is in beneficial use.
- B. Subject to the constraints of maintaining the existing utilities in operation; existing blower equipment, flex sleeves, ductwork, and appurtenances not necessary for the operation of the newly modified facilities shall remain the property of the Owner unless otherwise directed by the Owner. The Contractor shall remove, clean, and prepare for storage all equipment to remain as directed by the Owner. If the Owner elects not to retain ownership of a certain item, the item shall become the property of the Contractor and shall be removed from the site at the Contractor's expense.
- C. All equipment and materials to be stored for reinstallation or salvage shall be properly protected from damage.
- D. Any items of equipment damaged or lost due to the Contractor's carelessness, mishandling, or faulty procedures and/or workmanship shall be repaired or replaced in kind to the satisfaction of the Engineer.

- END OF SECTION -

SECTION 02200

EARTHWORK, EXCAVATION, AND BACKFILL

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. The work covered by this section consists of furnishing all labor, equipment, and materials, and performing all earthwork operations to include:
 - 1. Excavation and backfill of structures, foundations, and pavements.
 - 2. Surface preparation for structures, foundations, and pavements.
 - 3. Excavation and backfill of pipe trenches
 - 4. Site grading
 - 5. Soil compaction and stabilization requirements
 - 6. Soil testing

1.2 REFERENCES

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition.
- B. American Society for Testing and Materials (ASTM)
- C. D698 Moisture-Density Relationship of Soils.
- D. D1556 Standard Method of Test for Density of Soil in Place by Sand Cone Method.
- E. D1557 Method for Test for Moisture-Density Relations of Soils Using a 10-Pound Rammer and 18-Inch Drop.
- F. D2487 Classification of Soils for Engineering Purposes
- G. D2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods

1.3 RELATED SECTIONS SPECIFIED ELSEWHERE

- A. Drawings and general provisions of the Contract, including the General and Supplementary Conditions and Division 1 Specification sections, apply to this section.
- B. Section 01410 - Testing Laboratory Services
- C. Section 02016 - Existing Utilities and Underground Structures
- D. Section 11512 – Ammonia System

1.4 FIELD MEASUREMENTS AND COORDINATION

- A. Verify that survey benchmark, control point, and intended elevations for the work are as shown on the Drawings.
- B. Verify that work associated with lower elevation utilities is complete before placing higher elevation utilities.
- C. Maintain carefully all benchmarks, monuments and other reference points; if disturbed or destroyed, replace at no expense to Owner.

1.5 SUBSURFACE SOILS DATA

- A. Owner and Engineer make no representations or statements as to site or soil conditions and therefore do not assume any responsibility for actual site or soil conditions. It shall be Contractor's responsibility to determine for himself existing site and/or soil conditions.

PART 2 - PRODUCTS

2.1 EXCAVATION

- A. All excavation is unclassified. Complete all excavation regardless of the type, nature, or condition of the materials encountered.

2.2 SOURCE QUALITY CONTROL

- A. If tests for a material type fail three times, the Engineer may reject the source supplier and require the contractor to submit a new source for approval, at no additional cost to the Owner. The on-site soils are considered acceptable material and may be used, provided that it meets the specified requirements.
- B. Quality control of the work shall be the Contractor's responsibility and Contractor shall make every effort to produce the best quality work as specified on the Drawings and in these Specifications.

2.3 STRUCTURAL FILL AND BACKFILL

- A. Fill and backfill under and around all structures shall be suitable approved imported or on-site material. Material shall be free of organic material, shall have not more than 10 percent by dry weight passing the U.S. Standard No. 200 sieve, and shall have no rocks larger than 1 inches in size.
- B. On site organic soils or other on-site soils with more than 10% by dry weight passing the U.S. Standard No. 200 sieve are not suitable for use as fill under structures, pavers, pavements, and concrete.

2.4 EARTHFILL

- A. On-site excavated material free from roots, trash, and rocks larger than 1 inch.

2.5 WATER FOR COMPACTION

- A. Contractor shall furnish potable water, as required. Contractor may coordinate with the Owner to arrange for a hydrant meter for water during construction. Costs associated with the hydrant meter shall be paid for by the Contractor.

2.6 EQUIPMENT

- A. All equipment shall be suitable and adequate to perform the work specified. Compaction equipment shall be vibratory type.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Identify required lines, levels, contours, and datum locations. Protect bench marks, survey control points, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

- B. Locate, identify, and protect utilities that remain from damage.

3.2 STRIPPING TOPSOIL

- A. Stripping of topsoil shall be performed prior to any cutting, excavation, removal and/or replacement or fill materials.
- B. Strip topsoil from area within boundaries of proposed construction lines to a depth of approximately 4". The top materials stripped shall be removed and disposed of off site, unless authorized for use on the site by the Owner/Engineer.
- C. Stripping of topsoil shall ensure that entire site is stripped and scraped clean of all brush, weeds, grass, roots, vegetation, etc.

3.3 CUTTING

- A. Except as otherwise specified, after stripping of topsoil all site areas which are above elevation required shall be cut to subgrades required by drawings.

3.4 PROOF ROLLING

- A. Not Used.

3.5 FILLING

- A. Except as otherwise specified, after stripping of topsoil all site areas which are below elevation required shall be compacted as specified and then over such areas clean granular fill placed and compacted in layers not exceeding 12" in uncompacted thickness. Each layer of fill shall be compacted to at least 95% of the modified proctor maximum dry density (ASTM D1557). Filling and compaction shall continue until subgrades required for various areas are reached. All holes and depressions caused from removal of trees, stumps, etc. shall be filled and compacted. Fill shall be good clean material as previously specified.

3.6 EXCAVATION UNDER STRUCTURES AND PAVEMENT AREAS

- A. Excavation shall be performed to elevations and dimensions required by drawings with suitable allowance made for construction operations and inspections. Excavation carried to depths below required elevations shall be replaced in layers a maximum of 4" in depth and compacted in a manner to achieve a minimum density of 98% of the maximum dry density as determined by a modified proctor in accordance with ASTM D-1557. Contractor may place additional concrete in lieu of replacing and compacting excess excavation as specified above to fill excess cut. Correction of excess cut shall be responsibility of Contractor at no additional cost to Owner.
- B. Compact disturbed load bearing soil in direct contact with foundations to achieve a minimum density of 98% of the maximum dry density as determined by a modified proctor in accordance with ASTM D-1557.
- C. Slope banks with machine to angle of repose or provide necessary shoring.
- D. Do not interfere with 45 degree bearing splay of existing foundations without providing adequate means of shoring protection.
- E. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- F. Notify Engineer of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
- G. Correct areas over excavated in accordance with this section.

- H. Remove excavated material unsuitable for backfill from site.
- I. When muck or other deleterious materials is encountered in the excavation, it shall be completely removed within the area of the structure or pavement and to a depth where acceptable material is encountered. After removal of all muck or other deleterious material, the area shall be backfilled with approved fill material to the specified grade.

3.7 TRENCH EXCAVATION AND PREPARATION

- A. Excavation: Excavate as required for the installation of all piping, utilities, conduits, and appurtenances.
- B. Trench Width: Cut trenches sufficiently wide to enable installation, compaction and inspection. The maximum width will not be limited except where excessive trench width would cause damage to adjacent structures or piping.
- C. Grade: Excavate the bottom of the trench to the line and grade shown, or as established by the Engineer with proper allowance for pipe bedding.
- D. All trench work shall comply with the Trench Safety Act of 1990, with latest revisions.
- E. Piping shall be installed in a dry trench.
- F. When acceptable material is encountered in the trench, the bottom shall be excavated and graded to the depth required so as to provide a uniform and continuous bearing and support for the pipe on solid and undisturbed ground at every point between bell holes.
- G. Bell holes shall be provided at each joint to permit the joint to be made properly. At no time shall the bells support the pipe when in the trench.
- H. When muck or other deleterious materials is encountered in the trench, it shall be completely removed for the width of the trench at the pipe and to a depth where acceptable material is encountered. After removal of all muck or other deleterious material, the trench shall be backfilled with bedding material to the bottom of pipe grade.
- I. Refer to Village of Palm Springs standard details for additional requirements.

3.8 MAINTENANCE OF EXCAVATION

- A. The excavation shall be maintained at a dry condition at all times.
- B. All side slopes shall be such that material will not slide into the bottom of the excavation and any material doing so shall be immediately removed. Trench side slopes shall be in accordance with local codes, OSHA requirements, and the Trench Safety Act.
- C. All excavated material shall be piled in a manner that will not endanger the work and that will avoid obstructing sidewalks and driveways. Hydrants under pressure, valve pit covers, valve boxes, curb stop boxes, fire and police call boxes, or other utility controls shall be left unobstructed and accessible until the work is completed.
- D. Trees, shrubbery, fences, poles, bollards and all other property and surface structures shall be protected unless their removal is shown on the drawings or authorized by the Engineer.

3.9 BACKFILL UNDER STRUCTURES AND PAVEMENT AREAS

- A. Backfilling of excavated areas under, around or over building and structural appurtenances and pavement or pavers shall be performed with clean fill materials which are free of debris, organics, trash or other deleterious substances. Suitable compaction equipment shall be used to obtain density described previously for entire depth of backfilling. Each layer of backfill under structures, pavements, and pavers shall be compacted to a minimum of 98% of the

maximum dry density as determined by a modified proctor in accordance with ASTM D-1557. Each layer of compacted backfill shall not exceed 12" in thickness. The completed, compacted surface shall be at the proper final subgrade elevation.

- B. Verify that the specified density extends to 12 inches below the bottom of the structure or pavement base course to be installed.

3.10 TRENCH BACKFILLING

- A. Haunch Backfill: Carefully place Pipe Bedding material so as not to damage the pipe in maximum 6 inch loose lifts and compact to the pipe centerline. Use hand-held compaction equipment.
- B. Pipe Zone: Backfill with Pipe Bedding material in maximum 12 inch loose lifts and compact to a point 12 inches above the pipe crown.
- C. Under Pavement/Paver Areas, and Structures: In areas where backfill settlement must be held to a minimum, backfill above the pipe zone with Pipe bedding material in maximum 12 inch loose lifts and compact to a minimum 98 percent of the maximum dry density (ASTM D 1557) up to the subgrade elevation.
- D. Outside Pavement/Paver Areas: In areas where backfill settlement is not critical, backfill above the pipe zone with earthfill material to a density equal to or greater than the soil adjacent to the pipe trench, but not less than 90 percent of the maximum dry density (ASTM D 1557), to final grade.
- E. No material shall be used for backfill which contains muck or other deleterious material or material with an excessive void content. All backfill shall be composed of select clean granular material.
- F. All trenches and excavation shall be backfilled immediately after all pipe and joints have been investigated and approved by the Engineer or Utility Department, subject to satisfactory pressure and leakage test results, as required.
- G. Backfill, in general, shall be kept up with the rate of pipe laying. No more than 200 feet of pipe trench shall be open at one time at any one project location.
- H. Refer to Village of Wellington standard details for additional requirements.

3.11 BACKFILL AROUND STRUCTURES

- A. Obtain Owner/Engineer's acceptance of concrete work and attained concrete strength prior to backfilling.
- B. Backfill with Structural Backfill material placed in maximum 12 inch loose lifts and compacted to a minimum 95 percent of maximum dry density as determined by the modified proctor test (ASTM D 1557).
- C. Compact backfill adjacent to structures with equipment that will not damage the structure.
- D. Backfill with flowable fill or other material shall be only if reviewed and approved by the Engineer.

3.12 SITE GRADING

- A. Fill and contour site areas with Earthfill material to elevations shown and as required to prepare the site for landscape grading and sodding.
- B. Place materials in maximum 12 inch loose lifts and compact as required to limit subsequent settlement.

3.13 COMPACTION TESTING

- A. In-situ compaction testing shall be performed by the independent testing laboratory.
- B. Compaction testing shall be done by nuclear density equipment or other approved methods. (ASTM D-2937, D-1557, D-2922)
- C. Density testing shall be performed as follows:
 - 1. Pipe Trenches: 1 test per lift per 100 feet of pipe.
 - 2. Fill Under Structures: 1 test per lift under pump pad.
 - 3. Fill Under Pavement Areas: 1 test per lift per 2,000 square feet of compacted surface area.
- D. Test results in a specific location are only representative of a larger area if the contractor has used consistent compaction means and methods and the soils are practically uniform throughout. If it is determined by the Owner/Engineer that there are variations in the compaction methods and/or soil uniformity, additional testing may be required.

3.14 FINAL AND FINISH GRADING

- A. Using clean topsoil, perform all final and finish grading in all yard and planting areas indicated on drawings. Topsoil shall be placed to a minimum of 6" thickness, rototilled to a minimum depth of 8", leveled and finish graded in all areas.
- B. Final grading shall be performed and grades shaped to finished elevations indicated. Finish grades (top of the soil) shall be approximately 1-1/2" below edges of pathways, curbs and other paved or concrete slabs. After sod installation, the top of the sod shall not be more than 1/2" below or shall be flush with the grade established by any adjacent paved or curbed surface.
- C. The Contractor shall verify that all finish subgrades are correct prior to beginning installation of sod and planting materials. Upon completion of the project work, the Contractor shall prepare "record drawings" verifying that all finish grades are in accordance with the contract documents and shall submit same to the Owner/Engineer for review and acceptance prior to requesting final inspection of the project. The "record drawings" shall be prepared by a surveyor registered in the State of Florida.
- D. Upon project completion, all areas of site within immediate construction and adjacent areas shall be completely cleaned of all debris occasioned by this construction of this construction. Particular attention is called to any cement, mortar, masonry drippings and plaster which shall be completely removed from planting and lawn areas and shall be disposed of off site.
- E. All areas adjacent to site and all areas not within contract construction areas shall be left in reasonably same condition as they were found prior to commencement of construction.
- F. Any damage to the existing adjacent facilities including adjacent lakes or roads, and related areas such as, but not limited to, finish grades, slopes, grass sod, structures, pipe, etc. shall be repaired and restored to a proper and appropriate condition acceptable to the Owner/Engineer.

3.15 EXCESS MATERIAL

- A. Remove all excess suitable material from the site and dispose of at Contractor's expense.
- B. Unsuitable materials shall also be removed and disposed of off-site at Contractor's expense.

- END OF SECTION -

SECTION 02485

GRASSING

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. The Contractor shall furnish all labor, equipment, and materials necessary for grassing all areas disturbed by his operations and any other areas on the plans indicated to receive grassing. It is the intent of this specification that damaged areas are to be replaced in kind, with sod to be used for all maintained yard areas. The Owner/Engineer shall designate those areas to receive seed and those areas to receive sod. Owner/Engineer shall also designate the type of seed/sod to be used in each area. Contractor shall take all steps practical to minimize the area required to be sodded or seeded. All grassing shall be in accordance with Section 570-1 through 570-5 of the 1986 FDOT Standard Specifications for Road and Bridge Construction, except as modified herein.

1.2 STORAGE OF MATERIALS

- A. The Contractor shall provide space for storage of sod prior to placement in a manner that will not endanger or restrict pedestrian or vehicular traffic or interfere with other aspects of the work.

PART 2 - PRODUCTS

2.1 SOD

- A. Types: Sod shall be St. Augustine Floratam, Argentine Bahia, Centipede, or Bermuda, depending on type of existing sod in adjacent area to be matched. Sod shall be well matted with roots. Where sodding will adjoin, or be in sufficiently close proximity to private lawns, types of sod other than those listed above may be used if desired by the affected property owners and approved by the Engineer. Sod shall be delivered in commercial-size rectangles, preferably 12-inch by 24-inch or larger.
- B. Condition: The sod shall be sufficiently thick to secure a dense stand of live grass. The sod shall be live, fresh, and uninjured at the time of planting. It shall have a soil mat of sufficient thickness adhering firmly to the roots to withstand all necessary handling. It shall be reasonably free of weeds and other grasses. It shall be planted as soon as possible after being dug and shall be kept moist from the time it is planted.

2.2 GRASSING EQUIPMENT

- A. Rollers: A cultipacker, traffic roller, or other suitable equipment will be required for rolling the grassed areas.

PART 3 - EXECUTION

3.1 GENERAL CONSTRUCTION METHODS

- A. Seeding and mulching operations will not be permitted when wind velocities exceed 15 miles per hour. Seed shall be sown only when the soil is moist and in proper condition to induce growth. No seeding shall be done when the ground is frozen, unduly wet, or otherwise not in a tillable condition. Whenever a suitable length of right-of-way or adjacent area has been graded, it shall be made ready, when directed by the Engineer, and grassed in accordance with these specifications. Grassing shall be incorporated into the project at the earliest practical time in the life of the contract.

3.2 SODDING

- A. Preparation of Area to be Sodded: The ground which is to receive sod shall have been graded to proper elevations (2" below sodded grade) to match pre-construction conditions or proposed grades. All disturbed swales and ditches shall have been restored to their pre-construction condition or better. The pre-construction grade shall be maintained and the prepared soil shall be loose and reasonably smooth. It shall be reasonably free of large clods, roots, patches of existing grass, and other material which will interfere with the sod-laying operations or subsequent mowing and maintenance operations.
- B. Laying of Sod: Sod shall be installed in all areas so designated by Owner/Engineer. Sod shall be carefully placed so that each piece abuts flush to all surrounding sod, regardless of whether surrounding sod is new or existing. Where new sod is to be placed adjacent to existing sod, the new sod must be cut in to match the elevation of the existing sod. Uneven sod which might cause mowing problems will be rejected. New sod laid on top of existing sod will also be rejected. All sod placed on steep slopes (greater than 1:1) shall be pinned with a wooden pin to keep it in place.
- C. Rolling: Immediately after completion of the sod laying, the entire sodded area shall be rolled thoroughly with the equipment specified. At least two trips over the entire area will be required.
- D. Watering: Newly-sodded areas are to be watered by Contractor as necessary to keep sod alive until the Contractor is closed out. Dead sod shall be replaced by Contractor prior to contract closeout.

- END OF SECTION -

SECTION 03100
CONCRETE FORMWORK

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Formwork for cast-in place concrete, with shoring, bracing, and anchorage.
- B. Openings for other work.
- C. Form accessories.
- D. Form stripping.

1.2 RELATED SECTIONS SPECIFIED ELSEWHERE

- A. Section 03200 - Concrete Reinforcement
- B. Section 03300 - Cast-in-Place Concrete

1.3 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings.
- B. ACI 318 - Building Code Requirements for Reinforced Concrete.
- C. ACI 347 - Recommended Practice for Concrete Formwork.
- D. PS 1 - Construction and Industrial Plywood.
- E. 2023 Florida Building Code

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 318.
- B. Maintain one copy of each document on site.

1.5 REGULATORY REQUIREMENTS

- A. Conform to applicable code for design, fabrication, erection, and removal of formwork.

1.6 COORDINATION

- A. Coordinate this Section with other Sections of work which require attachment of components to formwork.
- B. Coordinate formwork with reinforcement installation to provide sufficient concrete cover over reinforcement.

1.7 DESIGN

- A. All formwork shall be designed by a Florida Registered structural engineer. Special attention shall be given to the additional hydraulic pressures imparted by concrete containing superplasticizer admixture. The contractor is specifically cautioned that not all of the specified superplasticizer admixtures will cure at the same rate.

PART 2 - PRODUCTS

2.1 WOOD FORM MATERIALS

- A. Form Materials: At the discretion of the Contractor.

- B. All form lumber shall be free from warp, holes, loose knots, dressed to uniform width and thickness. All forming shall conform to ACI 347.
 - 1. Unexposed concrete surfaces: No. 2 common lumber or better lumber
 - 2. Exposed concrete surfaces: commercial standard, moisture resistant, concrete form plywood.

2.2 FORMWORK ACCESSORIES

- A. Wall Form Ties: Removable Snap-off type, 316 stainless steel, fixed length, cone type, with waterproofing rubber washer, 1-1/2 inch back break dimension, free of defects that could leave holes larger than 1-inch in concrete surface.
- B. Form Release Agent: Colorless mineral oil which will not stain concrete, or absorb moisture, or impair natural bonding or color characteristics of coating intended for use on concrete. Diesel oil or motor oil will not be permitted.
- C. Corners Chamfer, wood strip type; 3/4 x 3/4 inch size; maximum possible lengths.
- D. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify lines, levels, and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

3.2 EARTH FORMS

- A. Earth forms are not permitted.

3.3 ERECTION - FORMWORK

- A. Erect formwork, shoring, and bracing to achieve design requirements, in accordance with requirements of ACI 318.
- B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.
- C. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
- D. Align joints and make watertight. Keep form joints to a minimum.
- E. Obtain approval before framing openings in structural members which are not indicated on Drawings.
- F. Provide chamfer strips on external corners of all exposed concrete elements.
- G. Induce camber on existing roof slab structure prior to casting concrete.

3.4 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
- C. Do not apply form release agent where concrete surfaces will receive special finishes applied coverings which are affected by agent. Soak inside surfaces of untreated forms with clean water.

- D. Keep surfaces coated prior to placement of concrete.

3.5 INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Provide formed openings where required for items to be embedded in passing through concrete work.
- B. Locate and set in place items which will be cast directly into concrete.
- C. Coordinate with work of other sections in forming and placing openings, slots, regrets, recesses, sleeves, bolts, anchors, other inserts, and components of other Work.
- D. Install accessories in accordance with manufacturer's instructions, straight, level, and plumb. Ensure items are not disturbed during concrete placement.
- E. Install waterstops continuous without displacing reinforcement. Heat seal joints watertight. Conform to manufacturers recommendations.
- F. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain.
- G. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

3.6 CONSTRUCTION JOINTS

- A. Construct and locate as indicated on the drawings and so as not to impair the strength of the structure and only at locations approved by the Engineer. Form keys in cold joints shown on the drawings.

3.7 FORM CLEANING

- A. Clean forms as erection proceeds, to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.
- C. Use compressed air to remove remaining foreign matter.

3.8 FORMWORK TOLERANCES

- A. Construct formwork to maintain tolerances required by ACI 318.
- B. Camber slabs and beams 1/4 inch per 10 feet in accordance with ACI 318.

3.9 FIELD QUALITY CONTROL

- A. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and that supports, fastenings, wedges, ties, and items are secure.
- B. Do not reuse wood formwork more than three times for concrete surfaces to be exposed to view.

3.10 FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads. Determination of form removal timing is the Contractor's responsibility and shall be in accordance with ACI 347, except that the Engineer reserves the right to delay form removal for a period not to exceed 14 days after the pour.
- B. Do not remove forms, shores and bracing until concrete has gained sufficient strength to carry its own weight, and construction and design loads which are liable to be imposed upon it. Verify strength of concrete by compressive test results.

- C. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
- D. Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.
- E. Remove formwork progressively and in accordance with code requirements and so that no shock loads or unbalanced loads are imposed on the structure.
- F. Re-shore structural members where required due to design requirements of construction conditions and as required to permit progressive construction.

- END OF SECTION -

SECTION 03200
CONCRETE REINFORCEMENT

GENERAL

1.1 WORK INCLUDED

- A. Reinforcing steel bars, wire fabric, and accessories for cast-in-place and precast concrete.

1.2 RELATED SECTIONS SPECIFIED ELSEWHERE

- A. Section 01300 - Submittals
- B. Section 03100 - Concrete Formwork
- C. Section 03300 - Cast-in-Place Concrete

1.3 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings.
- B. ACI 318 – Building Code Requirements for Reinforced Concrete
- C. ACI SP-66 - American Concrete Institute -Detailing Manual.
- D. ANSI/ASTM A82 - Cold Drawn Steel Wire for Concrete Reinforcement.
- E. ANSI/ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.
- F. ANSI/AWS D1.4 - Structural Welding Code for Reinforcing Steel.
- G. ASTM A615 - Deformed and Plain Billet Steel Bars for Concrete Reinforcement.
- H. ASTM A704 - Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement.
- I. AWS D12.1 - Welding Reinforcement Steel, Metal Inserts, and Connections in Reinforced Concrete Construction.
- J. CRSI -Concrete Reinforcing Steel Institute -Manual of Practice.
- K. CRSI 63 -Recommended Practice For Placing Reinforcing Bars.
- L. CRSI 65 - Recommended Practice For Placing Bar Supports, Specifications, and Nomenclature.
- M. 2023 Florida Building Code

1.4 SUBMITTALS

- A. Submit shop drawings under provisions of Section 01300.
- B. Shop Drawings: Indicate bar sizes, spacings, locations, and quantities of reinforcing steel and wire fabric, bending and cutting schedules, and supporting and spacing devices.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 318.
- B. Maintain one copy of document on site.

1.6 QUALIFICATIONS

- A. Welders' Certificates: Submit under provisions of Section 01300 Manufacturer's Certificates, certifying welders employed on the Work, verifying AWS qualification within the previous 12 months.

1.7 COORDINATION

- A. Coordinate with placement of formwork, formed openings, and other Work.

1.8 STORAGE

- A. Reinforcing steel shall be clean, new stock, properly marked and tagged for identification prior to placing. Store reinforcing to avoid excessive rusting or coating with grease, oil, dirt, or other objectionable materials.

PRODUCTS

2.1 REINFORCEMENT

- A. Reinforcing Steel: ASTM A615, 60-ksi yield grade; deformed billet steel bars, unfinished.
- B. Welded Steel Wire Fabric: ASTM A185 Plain Type; in flat sheets unfinished.
- C. Ties: Shall be No. 16 gauge minimum, fully annealed, black steel wire.
- D. Hooks and Bends in Reinforcement shall conform to ACI 315 unless otherwise noted on the drawings.

2.2 ACCESSORY MATERIALS

- A. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor barrier puncture.
- B. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather-exposed Concrete Surfaces: Plastic coated steel or stainless steel type; size and shape as required.

2.3 FABRICATION

- A. Fabricate concrete reinforcing in accordance with ACI 318.
- B. Locate reinforcing splices not indicated on drawings, at point of minimum stress. Review location of splices with Engineer.

EXECUTION

3.1 PLACEMENT

- A. Fabrication, detailing and placement of reinforcing steel shall conform to CRSI Manual of Standard Practice, ACI 315 and ACI 318. Reinforcement shall be carefully placed, rigidly supported and well tied with bar supports and spacers.
- B. Reinforcement shall be accurately placed and securely tied at intersections with 16 gauge black annealed wire. It shall be maintained in proper position by chairs, bar supports, or other devices approved by the Engineer.
- C. All splices and laps shall be as shown on the drawings, or 36 bar diameters, whichever is greater.
- D. Concrete protection of reinforcing shall be not less than the following or as shown on the drawings if greater:
 - 1. Concrete cast against and permanently exposed to earth or exposed to corrosive environment -- 3 inches.
 - 2. Concrete cast against forms, but exposed to earth or weather:

- a. No. 6 through No. 11 bars -- 2 inches
- b. No. 5 bars, or equivalent, and smaller -- 1-1/2 inches.
- 3. Concrete cast against forms, but not exposed to earth or weather (interior construction):
 - a. Slabs, walls and joists:
 - 1) No. 14 and No. 18 bars -- 1-1/2 inches
 - 2) No. 11 bars and smaller for liquid retaining structures -- 2 inches
 - 3) No. 11 bars and smaller elsewhere -- 3/4 inch
 - b. Beams and Columns, including primary reinforcement, ties, stirrups, and spirals -- 1-1/2 inches.
- E. The clear distance between parallel bars in a layer shall be the nominal diameter of the bar, but not less than one inch. Wherever conduits, piping, inserts or sleeves interfere with the placing of reinforcing steel as shown, the Contractor shall consult with the Engineer before pouring concrete. The bending or field cutting of bars around openings or sleeves will not be permitted.
- F. Clean bars of loose scale, heavy deposits or rust and oil, wax or other coatings that may reduce or destroy bonding, before placing. Check and clean again if necessary before concrete is poured.
- G. Concrete beam sizes may be increased as required for architectural details or to fit block coursing, subject to Engineer approval.
- H. Reinforcing steel in footings shall be assembled as mats with bars equally spaced and wired together at each intersection before concrete is placed.
- I. Center all footings on wall, pier or column above unless otherwise indicated.
- J. Dowel column and wall reinforcing to footing or pile cap with same size and number of dowels as vertical bars above.
- K. Dowels shall be hooked "L" at bottom and shall be lapped 36 bar diameter with the column or wall reinforcing above.
- L. Concrete columns shall be tied columns unless otherwise indicated.
- M. Provide one layer 6 x 6 - W2.9 x W2.9 WWF in slabs on grade including walkways and sidewalks unless otherwise indicated.

3.2 COORDINATION

- A. Coordinate work with other trades in order to eliminate interference before concrete is poured.

3.3 CLEANUP

- A. In accordance with General Conditions.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 03300
CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 NOTICE

- A. Engineer shall be given a minimum of 48 hours advance notice to all concrete placements and no concrete shall be placed without approval of Engineer.

1.2 WORK INCLUDED

- A. Cast-in-place concrete foundations, walls, slab-on-grade, equipment pads, underground concrete vaults and structures, pipe supports, curbs, and sidewalks. All cast-in-place concrete for this project shall be ready mix per this specification. Pre-mixed, bagged mixes shall not be utilized for any purpose on the project unless specifically approved by the engineer.

1.3 RELATED SECTIONS SPECIFIED ELSEWHERE

- A. Section 01300 – Submittals
- B. Section 01410 – Testing Laboratory Services
- C. Section 03100 - Concrete Formwork
- D. Section 03200 - Concrete Reinforcement

1.4 REFERENCES

- A. ACI 301 - Specifications for Structural Concrete for Buildings.
- B. ACI 318 - Building Code Requirements for Reinforced Concrete
- C. ASTM C33 - Concrete Aggregates.
- D. FDOT Standard Specifications for Road and Bridge Construction
- E. ASTM C94 - Ready-mixed Concrete.
- F. ASTM C150 - Portland cement.
- G. ASTM C260 - Air Entraining Admixtures for Concrete.
- H. ASTM C494 – Chemical Admixtures for Concrete
- I. ASTM C618 – Pozzolonic Materials.

1.5 QUALITY ASSURANCE

- A. Perform Work: in accordance with ACI 301 and FDOT Standard Specifications.
- B. Obtain materials for same source throughout the Work.
- C. Submit manufacturer's certification that materials meet specification requirements.
- D. Submit ready-mix delivery tickets, ASTM C94-78.

1.6 TESTS

- A. Testing and analysis of concrete will be performed under provisions of this Section and Section 01410.
- B. Submit proposed mix design of each class of concrete to Engineer for review prior to commencement of work in accordance with Submittal Section. Submittal shall include proposed location for each class of concrete.

- C. Independent Testing laboratory shall take cylinders and perform slump and air entrainment tests in accordance with ACI 301.
- D. Provide 5 cylinders per set. Test one at 3 days, one at 7 days, two at 28 days, and hold one.
- E. Slump tests shall be taken for every truck delivery and each set of test cylinders taken.
- F. In general, cylinders shall be taken for each concrete pour event, and every 50 cubic yards placed.
- G. All tests failing minimum specified criteria shall be billed to and paid for by the Contractor.

1.7 SUBMITTALS

- A. Submit product data under provisions of Section 01300 for Fine and Coarse aggregates, admixtures, concrete mix design, joint devices, attachment accessories, and curing compounds.
- B. Field test reports: Submit field test reports for all cylinder tests.

PART 2 - PRODUCTS

2.1 CONCRETE MATERIALS

- A. Cement: ASTM C150 -Type II Cement.
- B. Fine and Coarse Aggregates: ASTM C33.
 - 1. Conform to ASTM C33: Local aggregates not complying with this standard may be used provided it can be shown by special test or a record of past performance these aggregates produce concrete of adequate strength and durability.
 - 2. Fine Aggregate: Clean, washed natural sand of hard, sound, uncoated grains. Manufactured clean, washed, hard sand may be used for structures other than water retention structures.
 - 3. Course Aggregates: Clean, washed, sound and crushed.
 - 4. Aggregate Size Requirements: Use largest practicable aggregate size for each condition of placement subject to limitations stipulated in paragraph 3.3, ACI Code 318.
- C. Water: Clean potable water.

2.2 ADMIXTURES

- A. Air Entrainment: All concrete shall entrain from two to four percent air, whether batched with or without other admixtures. Conform to ASTM C260. Use Dairex II AEA or equal.
- B. Water-reducing admixture may be used and must meet ASTM C-494 as a Type A and Type D. Use WRDA 64 or equal. Add in accordance with ACI-350.
- C. Use of calcium chloride is not permitted.
- D. Air entraining agent to normal weight concrete mix if used, shall not exceed 4%.
- E. Superplasticizer: A superplasticizer admixture may be used on all structures if approved by the Engineer. Superplasticizer shall be used on all water retention structures. The superplasticizer shall satisfy the following requirements.
 - 1. Conform to ASTM C494, Type F or Type G.
 - 2. Superplasticizer admixture shall be added to the mix at the batch plant unless otherwise approved by the Engineer.
 - 3. Provide documentation showing, at a 6-inch slump plus or minus 1-inch, the relative durability factors of air entrained concrete as determined in accordance with ASTM C-666,

Procedure A, as compared to the same air entrained concrete mix at a 2-inch slump or minus 1-inch without superplasticizer admixture.

4. A qualified concrete technician employed by the manufacturer shall be available to assist in proportioning concrete materials for optimum use, to advise on proper use of the superplasticizer admixture and adjustment of concrete mix proportions to meet job site and climatic conditions.
5. Approved Products:
 - a. Sikament 300, Sika Chemical Corp. or Engineered approved equal.
 - b. Pozzolith 440 N, Master Builders Company, or Engineer approved equal.

2.3 CURING MATERIALS

- A. Chemical Curing: Curing compounds shall be liquid, membrane forming and shall conform to ASTM C309, as approved by the Engineer. The liquid compound shall not reduce the adhesion of tile, paint, roofing, waterproofing or other material to be applied to the concrete. No liquid compound shall be allowed to cure a first pour of concrete that will receive a second pour. The use of a curing compound in lieu of water spray curing is subject to the Engineer's approval and will, generally, not be approved as an alternate to impervious membrane and spray mist curing.
- B. Impervious Membrane Sheeting: Kraft paper or 4 mil polyethylene sheeting, in accordance with ASTM C171 may be used with approval of the Engineer.

2.4 CONCRETE MIX

- A. Mix concrete in accordance with ASTM C94.
- B. Provide concrete to satisfy the following requirements:
 1. Compressive Strength (28 days): 3000 psi for sidewalks and curbs, 4000 psi all other locations.
 2. Water/Cement ratio: maximum 0.45 without admixtures by weight.
 3. Fly Ash Content: maximum 15% of cement content, Type F only.
 4. Slump 4 ± 1 inch regular, 6 ± 1 inch with superplasticizer, 6-8 inch pea rock pump mix.
- C. Use set-retarding admixtures during hot weather only when approved by Engineer.
- D. Air entrainment: Total air content required (air-entrained and entrapped air) shall be as follows, and as measured in accordance with ASTM C231:

Nominal Maximum Size of Coarse aggregate, in.	Total Air Content Percentage by volume
3/8	6 to 10
2	5 to 9
3/4	4 to 8
1	3.5 to 6.5
1-1/2	3 to 6
2	2.5 to 5.5
3	1.5 to 4.5

- E. Superplasticizer shall be used in all reinforced concrete walls that are water holding structures; i.e., clearwell, containment walls, etc.

2.5 ACCESSORIES

- A. Vapor Barrier: 10 mil thick clear polyethylene film, type recommended for below-grade application.
- B. Non-Shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 2,400 psi in 48 hours and 7,000 psi in 28 days.
- C. Water Stop (PVC): 4" x 3/16" water stop, Dumbell polyvinylchloride Greenstreak - Style 741 or approved equivalent.
- D. Water Stop (Other): Bentonite type strips Rx101, or applicable to condition, as manufactured by Volclay, or equal.
- E. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor barrier puncture.
- F. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather Exposed Concrete Surfaces: Plastic coated steel or Stainless steel type; size and shape as required. Do not use concrete or clay bricks to support reinforcing.
- G. Backing rod and sealant as indicated on drawings for construction joints.
- H. Sealing Materials: Material for sealing and filling joints and for sealing pre-molded filler strip, shall conform to ASTM D1190 for "Concrete Joint Sealer; Hot-Poured Elastic Type."
- I. Curbs: Construct roadway and sidewalk curbs as shown on the drawings and in accordance with local codes and regulations. Construct all other curbs that support equipment or structural wall systems as indicated on the drawings.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Verify reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not cause hardship in placing concrete.
- B. Verify site dewatering conditions. All foundations shall be cast in the dry.
- C. Verify requirements for concrete cover over reinforcement.
- D. Clean forms of trash, wood, excess steel, and deleterious materials.

3.2 PREPARATION

- A. Install vapor barrier under all slabs, footings, and other concrete exposed to earth. Lap joints a minimum of 6 inches. Do not disturb or damage vapor barrier while placing concrete. Repair damaged vapor barrier.
- B. In locations where new concrete is dowelled to existing work, drill holes in existing concrete, clean holes, insert steel dowels and epoxy in accordance with manufacturer's installation instructions keeping the minimum embedment depth specified on drawings.
- C. Coordinate the placement of joint devices with erection of concrete formwork and placement of form accessories.

3.3 PLACING CONCRETE

- A. Notify Engineer and Owner's Representative minimum 48 hours prior to commencement of concreting operations.

- B. Place concrete in accordance with ACI 301 and FDOT Standard Specifications.
- C. Hot Weather Placement ACI 301.
- D. Cold Weather Placement ACI 301.
- E. Ensure reinforcement, inserts, embedded parts, formed joints are not disturbed during concrete placement.
- F. Use Ready-Mixed Concrete: Conform to ASTM C94. Plant and truck mixers subject to examination by Engineer.
- G. Water and Mixing: Mix concrete at least 10 minutes, 5 minutes of which is at the job, after the last addition of water. Retempering in truck is prohibited. Any concrete in truck longer than 1-1/2 hours after the water has been added at the plant, or any that has become harsh or non-plastic, shall be rejected based solely upon the Engineer's discretion.
- H. Load Tickets: Shall include all information required by ASTM C94 and be legible, showing quantities of all constituents in the batch, and bearing signature of plant inspector or bonded weighmaster. Maintain all tickets on file for inspection by the Engineer. All tickets shall show the mix number. Tickets not showing the mix number shall cause the load to be immediately rejected.
- I. Slumps: At point of delivery to forms the concrete slump requirements shall conform to this section of the specifications.
- J. Place concrete continuously between predetermined construction and control joints. Do not break or interrupt successive pours such that cold joints occur.
- K. Contractor shall be responsible for means and methods to ensure concrete is poured in a dry area.
- L. All concrete shall be placed with the aid of mechanical vibrating equipment supplemented by hand forking or spading. Contractor needs to use mechanical vibrating equipment for consolidating concrete and should have a minimum of (2) two operable vibrators on the job. Vibration shall be transmitted directly to the concrete and not through the forms.
- M. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- N. Saw cut curb joints within 24 hours after placing. Use 3/16 inch thick blade, cut 1/4 of slab thickness.
- O. Screed floors level, maintaining surface flatness of maximum 1/4 inch in 10 ft.
- P. Concrete that is to be placed on existing slabs shall have the slab scarified and bonding agent applied to the limits of the new pad.

3.4 FINISHING

- A. Provide formed concrete walls, columns, beams, Class 5 finish above the water line.
- B. Finish building slabs and miscellaneous horizontal concrete surfaces in accordance with ACI 301, steel trowel finish.
- C. Sidewalks shall have a light broom finish.

3.5 CURING AND PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. Concrete shall be kept moist for fourteen days after pouring. Vertical forms may be left in place and horizontal surfaces continuously moistened with water via spray misting. If forms are removed, impervious membrane sheeting or

chemical curing may be used if approved by the Engineer. The Engineer shall have the right to determine when the forms may be removed and whether a curing compound can be used in lieu of spray misting.

- B. Water cure concrete surfaces in accordance with ACI 301 for 7 days or apply curing compound.
- C. Contractor shall use curing compounds for vertical surfaces.

3.6 PATCHING

- A. Notify Engineer immediately upon removal of forms. No surfaces are to be patched or backfilled prior to being reviewed by the Engineer.
- B. Patch imperfections as requested by the Engineer or his field representative in accordance with ACI 301 and FDOT Standard Specifications.
- C. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Engineer upon discovery.

3.7 DEFECTIVE CONCRETE

- A. Modify or replace concrete not conforming to required levels, lines, details, elevations, dimensions, tolerances, or specified requirements.
- B. Repair or replace concrete not properly placed will be determined by the Engineer or Owner's Representative.
- C. Unless the removal of a defective slab is required by the Engineer, defective surfaces, such as honeycomb, shall be cut out entirely until homogeneous concrete is met, even if it means going through the slab.
- D. Such areas shall be coated with an approved epoxy bonding material, which shall be applied in accordance with the manufacturer's instruction, before damp packing the area with a mix consisting of one part of Portland cement and two parts of sand and fine gravel, epoxy and sand mix, or any combination of materials and mixes as the situation dictates in the opinion of the Engineer.
- E. The water content of the damp-pack material shall be such that a ball of the mix may be squeezed in the hand without bringing free water to the surface.
- F. Damp-pack material shall be tamped into place and finished to match adjacent concrete surfaces.
- G. Particular care shall be taken that no sagging of the material will occur.
- H. The bond between any two layers of damp-pack shall be improved through the use of an approved epoxy bond agent.
- I. Surfaces which have been damp-packed shall be kept continuously damp during and for a period of not less than seven days after completing the damp-pack operation, by polyethylene coverings thoroughly taped to the original concrete surface in a manner that loss of moisture, evidenced by lack of water droplets on the inside surface of the polyethylene, is avoided. If this moisture condition cannot be maintained, a continuous water cure may be required by the Engineer.
- J. Under no circumstances shall Contractor apply a plaster coat over the honeycomb areas to conceal the existence of the honeycomb in the concrete.
- K. Neither Embeco nor calcium chloride shall be used for filling honeycomb areas, nor shall they be mixed with damp-pack material.
- L. Any concrete with excess air entraining agent will be rejected.

3.8 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 01410.
- B. Contractor will be required to contact Testing Lab to be present for concrete deliveries.
- C. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 05500

MISCELLANEOUS METALS

PART 1 - GENERAL

1.1 SCOPE

- A. This Section includes the furnishing and installation of fabricated metal work which applies to all sections, unless otherwise noted.

1.2 REFERENCE SPECIFICATIONS AND STANDARDS ARE REFERRED TO BY ABBREVIATION AS FOLLOWS:

- | | |
|---|-------|
| A. The Aluminum Association | AA |
| B. American Institute of Steel Construction | AISC |
| C. American National Standards Institute | ANSI |
| D. American Society for Testing and Materials | ASTM |
| E. American Welding Society | AWS |
| F. National Association of Architectural
Metal Manufacturers | NAAMM |
| G. Steel Structures Painting Council | SSPC |

1.3 QUALITY ASSURANCE

- A. Portions of the design not shown shall be completed by the fabricator in accordance with the latest edition of Specifications for Design, Fabrication and Erection of Structural Steel for Buildings of the AISC.
- B. Shop fabricated connections may be bolted or welded. Field connections shall be bolted.
- C. Burning/torching for enlarging holes will not be acceptable except with written permission of the Engineer.
- D. Responsibility for all errors in fabrication and correct fitting of structures shown on the shop drawings is the Contractor's responsibility.

1.4 REGULATORY REQUIREMENTS

- A. Metal fabrication materials shall meet the requirements of the following ASTM Standards and Specifications, but limited to.
 - 1. Aluminum Alloy, plate and sheet B209-3003-H14, extruded trim B308-6063-T5 & T6, structure shapes B308-6061-T5, structural pipe and tube B429, castings B214.
 - 2. Structural steel, plates and shapes A36, plate and steel for forming A283 Grade C.
 - 3. Structural bolts, specifically called out on the Plans A-325.
 - 4. Other bolts, unless otherwise noted, A-307.
 - 5. Steel stud anchors for embedded plates, A-108, grade 1020, 60 ksi.
 - 6. Galvanizing, A123.
- B. Comply with the provisions of the following standards except as otherwise shown or specified.
 - 1. AA Specifications for aluminum structures.
 - 2. AISC Specifications for design, fabrication and erection of structural steel for buildings.
 - 3. AWS code for welding in building construction.

1.5 SUBMITTALS

- A. Submit shop drawings and manufacturer's descriptive literature as applicable for all metal fabrications in accordance with Section 01300. No items shall be fabricated prior to reviewing approval by Engineer. Minimum scale of drawings and elevations shall be 3/4 in. equals 1 ft., details enlarged to adequate size for clarity, show anchorage.
- B. Where certain equipment and the like require unique support, provide such members only after careful coordination of shop drawings for the equipment.

1.6 PRODUCT HANDLING

- A. Use all means necessary to protect the Products of this Section before, during, and after installation and to protect the installed work and materials of all other trades.
- B. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Engineer and at no additional cost to the Owner.
- C. Coordinate delivery of metal fabrications with work of other Sections.

1.7 FASTENERS

- A. Provide fasteners for all items under this Section. All nuts, bolts, washers, back up rings, etc. shall be 316 SS unless otherwise called out on the drawings or specified elsewhere herein.

1.8 DIMENSIONS

- A. Verify critical dimensions of the work on the job. Form items to accurate sizes and shapes, with sharp lines and angles. Punch and shear to leave smooth surfaces. Weld permanent connections, grind exposed welds smooth. Avoid screws and bolts where possible unless otherwise noted. When used and where exposed, Countersink heads and draw up tight. Provide holes and connections for work of other trades.

1.9 PAINTING

- A. Shop painting of ferrous items, except those galvanized, shall be as specified in Section 09900 - Painting.

1.10 DISSIMILAR MATERIALS

- A. Protect aluminum in contact with concrete and dissimilar material with 1/4" neoprene, or bitumastic coating.

1.11 PIPE SUPPORTS

- A. Pipe support straps shall be 316 Stainless steel unless otherwise noted.
- B. Metal pipe support fabrication shall be 316 Stainless steel unless otherwise noted.

PART 2 - PRODUCTS

2.1 SHOP FABRICATED PRODUCTS

- A. Provide anchor bolts as shown as well as for fabricated and structural metal items. Do not paint bolts.
- B. Provide inserts and sleeves for concrete as shown and as required.
- C. Provide miscellaneous metal frames and supports fabricated of structural shapes and plates.

2.2 MISCELLANEOUS METALS

- A. Unless noted otherwise on the drawings or specified differently in other sections, all miscellaneous metal fabrications shall be 316 stainless steel.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.
- B. Beginning of installation means erector accepts existing conditions.

3.2 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.

3.3 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Allow for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Field weld components indicated on shop drawings.
- D. Perform field welding in accordance with AWS D1.1.
- E. Obtain Engineer approval prior to site cutting or making adjustments not scheduled.
- F. Verify that supports and anchors are correctly positioned.
- G. Verify that opening sizes and dimensional variations are acceptable to suit grading, railing, and stairs tolerances.
- H. Perform cutting, drilling, flashing and fitting required for installation of metal fabrications. Set the work accurately, provide temporary bracing and anchors in formwork for items to be built into masonry and concrete. Field weld joints not shop welded because of size limitations.

3.4 TOLERANCES

- A. Conform to ANSI/NAAMM A202.1.
- B. Maximum space between sections: ¼ inch.
- C. Maximum variation from top surface plane of sections: ¼ inch.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 07190
VAPOR BARRIER

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. Furnish labor, material and equipment required for the installation of vapor barrier under all reinforced concrete placed against soil.

1.2 SUBMITTALS

- A. In accordance with the procedures and requirements set forth in Section 01300, submit Manufacturer's data and installation instructions.

PART 2 - PRODUCTS

2.1 VAPOR BARRIER

- A. Vapor Barrier: Polyethylene sheets with a minimum tensile strength of 4500 psi in accordance with ASTM D-882, vapor transmission rating of 0.02 and perm. rating of 0.045 in accordance with ASTM E-95, and a puncture resistance of 15 lbs in accordance with ASTM D-2582. Provide "Rufco 400" by Raven Industries, "T -55" by Griffolyn, or equal.
- B. Adhesive/Tape: Type approved by the Manufacturer of the vapor material.

PART 3 - EXECUTION

3.1 VAPOR BARRIER

- A. Place vapor barrier under all slabs on grade; lap edges 12 inches and seal with adhesive tape. Lay with seams perpendicular to and lapped in the direction of placement. Do not penetrate vapor barrier.
- B. Protect from damage until concrete is placed. Punctures and tears in vapor barrier shall be repaired using patches of the material which overlaps puncture or tear a minimum of 12 inches; seal with tape or adhesive.
- C. Fill under vapor barrier shall be compacted, clean, free of debris and protrusions.

- END OF SECTION -

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SECTION 07920

JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes sealants for the following applications, including those specified by reference to this Section:
- B. This Section includes sealants for the following applications:
 - 1. Exterior joints in the following vertical surfaces:
 - a. Joints between metal panels.
 - b. Joints between different materials listed above.
 - c. Perimeter joints between materials listed above and frames of doors and windows.
 - d. Other joints as indicated.
 - 2. Interior joints in the following vertical surfaces and horizontal nontraffic surfaces:
 - a. Control and expansion joints on exposed interior surfaces of exterior walls.
 - b. Perimeter joints of exterior openings where indicated.
 - c. Tile control and expansion joints.
 - d. Perimeter joints between interior wall surfaces and frames of interior doors, windows, and elevator entrances.
 - e. Joints between plumbing fixtures and adjoining walls, floors, and counters.
 - f. Other joints as indicated.

1.3 PERFORMANCE REQUIREMENTS

- A. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

1.4 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Samples for Verification: For each type and color of joint sealant required. Install joint sealants in 1/2-inch- (13-mm-) wide joints formed between two 6-inch- (150-mm-) long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.
- D. Product Certificates: Signed by manufacturers of joint sealants certifying that products furnished comply with requirements and are suitable for the use indicated.
- E. Compatibility and Adhesion Test Reports: From sealant manufacturer indicating the following:
 - 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.

- 2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.
- F. Product Test Reports: From a qualified testing agency indicating sealants comply with requirements, based on comprehensive testing of current product formulations.
- G. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has specialized in installing joint sealants similar in material, design, and extent to those indicated for this Project and whose work has resulted in joint-sealant installations with a record of successful in-service performance.
- B. Source Limitations: Obtain each type of joint sealant through one source from a single manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration date, pot life, curing time, and mixing instructions for multicomponent materials.
- B. Store and handle materials in compliance with manufacturer's written instructions to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not proceed with installation of joint sealants under the following conditions:
 - 1. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer.
 - 2. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 40 deg F (4.4 deg C).
 - 3. When joint substrates are wet.
- B. Joint-Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.
- C. Joint-Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

1.8 WARRANTY

- A. General Warranty: Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Special Installer's Warranty: Written warranty, signed by Installer agreeing to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

PART 2 - PRODUCTS

2.1 PRODUCTS AND MANUFACTURERS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified in the sealant schedules at the end of Part 3.
- B. Products: Subject to compliance with requirements, provide one of the products indicated for each type in the sealant schedules at the end of Part 3.

2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
- B. Colors of Exposed Joint Sealants: As selected by Owner from manufacturer's full range for this characteristic.

2.3 ELASTOMERIC JOINT SEALANTS

- A. Elastomeric Sealant Standard: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant in the Elastomeric Joint-Sealant Schedule at the end of Part 3, including those referencing ASTM C 920 classifications for type, grade, class, and uses.
- B. Stain-Test-Response Characteristics: Where elastomeric sealants are specified in the Elastomeric Joint-Sealant Schedule to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- C. Suitability for Contact with Food: Where elastomeric sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

2.4 SOLVENT-RELEASE JOINT SEALANTS

- A. Acrylic-Based Solvent-Release Joint-Sealant Standard: Comply with ASTM C 1311 for each product of this description indicated in the Solvent-Release Joint-Sealant Schedule at the end of Part 3.
- B. Acrylic-Based Solvent-Release Joint-Sealant Standard: Comply with FS TT-S-00230 for each product of this description indicated in the Solvent-Release Joint-Sealant Schedule at the end of Part 3.
- C. Butyl-Rubber-Based Solvent-Release Joint-Sealant Standard: Comply with ASTM C 1085 for each product of this description indicated in the Solvent-Release Joint-Sealant Schedule at the end of Part 3.
- D. Pigmented Narrow Joint Sealant: For each product of this description indicated in the Solvent-Release Joint-Sealant Schedule at the end of Part 3 provide manufacturer's standard, solvent-release-curing, pigmented, synthetic-rubber sealant complying with AAMA 803.3 and formulated for sealing joints 3/16 inch (5 mm) or smaller in width.

2.5 LATEX JOINT SEALANTS

- A. Latex Sealant Standard: Comply with ASTM C 834 for each product of this description indicated in the Latex Joint-Sealant Schedule at the end of Part 3.

2.6 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, of type indicated below and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:
 - 1. Type C: Closed-cell material with a surface skin.

2.7 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants with joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air. Porous joint surfaces include the following:
 - a. Concrete.
 - b. Masonry.
 - c. Unglazed surfaces of ceramic tile.
 - 3. Remove laitance and form-release agents from concrete.

4. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
 - a. Metal.
 - b. Glass.
 - c. Porcelain enamel.
 - d. Glazed surfaces of ceramic tile.
- B. Joint Priming: Prime joint substrates where recommended in writing by joint sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations of ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 1. Do not leave gaps between ends of sealant backings.
 2. Do not stretch, twist, puncture, or tear sealant backings.
 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and back of joints.
- E. Install sealants by proven techniques to comply with the following and at the same time backings are installed:
 1. Place sealants so they directly contact and fully wet joint substrates.
 2. Completely fill recesses provided for each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 1. Remove excess sealants from surfaces adjacent to joint.
 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
 4. Provide flush joint configuration, per Figure 5B in ASTM C 1193, where indicated.

5. Provide recessed joint configuration, per Figure 5C in ASTM C 1193, of recess depth and at locations indicated.
 - a. Use masking tape to protect adjacent surfaces of recessed tooled joints.

3.4 CLEANING

- A. Clean off excess sealants or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from the original work.

3.6 ELASTOMERIC JOINT-SEALANT SCHEDULE

- A. Acid-Curing Silicone Sealant: Where joint sealants of this type are indicated, provide products complying with the following:
 1. Products: Available products include the following:
 - a. Chem-Calk 1200; Bostik Inc.
 - b. 999-A; Dow Corning.
 - c. Trademate Glazing; Dow Corning.
 - d. Construction 1200; GE Silicones.
 - e. Contractors SCS1000; GE Silicones.
 - f. SCS1702F; GE Silicones.
 - g. HiFlex 392; NUCO Industries, Inc.
 - h. NuFlex 302; NUCO Industries, Inc.
 - i. HM 270; Ohio Sealants, Inc.
 - j. 860; Pecora Corporation.
 - k. 863; Pecora Corporation.
 - l. PSI-601; Polymeric Systems, Inc.
 - m. OmniPlus; Sonneborn Building Products Div., ChemRex Inc.
 - n. Proglaze; Tremco.
 - o. Tremsil 300; Tremco.
 2. Type and Grade: S (single component) and NS (nonsag).
 3. Class: 25.
 4. Use Related to Exposure: NT (nontraffic).
 5. Uses Related to Joint Substrates: G, A, and, as applicable to joint substrates indicated, O.
 - a. Use O Joint Substrates: Coated glass, color anodic aluminum, aluminum coated with a high-performance coating, galvanized steel, and ceramic tile.
 6. Applications: General glazing & sealing (not for use on masonry).
- B. Mildew-Resistant Silicone Sealant: Where joint sealants of this type are indicated, provide products formulated with fungicide that are intended for sealing interior ceramic tile joints and

other nonporous substrates that are subject to in-service exposures of high humidity and temperature extremes, and that comply with the following:

1. Products: Available products include the following:
 - a. 786 Mildew Resistant; Dow Corning.
 - b. Sanitary 1700; GE Silicones.
 - c. NuFlex 302; NUCO Industries, Inc.
 - d. 898 Silicone Sanitary Sealant; Pecora Corporation.
 - e. PSI-611; Polymeric Systems, Inc.
 - f. Tremsil 600 White; Tremco.
 2. Type and Grade: S (single component) and NS (nonsag).
 3. Class: 25.
 4. Use Related to Exposure: NT (nontraffic).
 5. Uses Related to Joint Substrates: G, A, and, as applicable to joint substrates indicated, O.
 - a. Use O Joint Substrates: Coated glass, color anodic aluminum, aluminum coated with a high-performance coating, galvanized steel, and ceramic tile.
 6. Applications: Use in joints between plumbing fixtures and adjoining walls, floors and counters.
- C. Single-Component Nonsag Urethane Sealant: Where joint sealants of this type are indicated, provide products complying with the following:
1. Products: Available products include the following:
 - a. Vulkem 116; Mameco International.
 - b. Vulkem 230; Mameco International.
 - c. Sikaflex - 1a; Sika Corporation.
 - d. NP 1; Sonneborn Building Products Div., ChemRex Inc.
 2. Type and Grade: S (single component) and NS (nonsag).
 3. Class: 25.
 4. Use[s] Related to Exposure: NT (nontraffic).
 5. Applications: General exterior sealant for use in active joints and where sealant may be exposed to physical abuse..
- D. Multicomponent Nonsag Urethane Sealant : Where joint sealants of this type are indicated, provide products complying with the following:
1. Products: Provide one of the following:
 - a. Chem-Calk 2641; Bostik Inc.
 - b. Vulkem 227; Mameco International.
 - c. Vulkem 922; Mameco International.
 - d. Elasto-Thane 920 Gun Grade; Pacific Polymers, Inc.
 - e. Dynatred; Pecora Corporation.
 - f. PSI-270; Polymeric Systems, Inc.
 - g. NP 2; Sonneborn Building Products Div., ChemRex Inc.
 2. Type and Grade: M (multicomponent) and NS (nonsag).
 3. Class: 25.
 4. Use[s] Related to Exposure: NT (nontraffic).
 5. Applications: Concrete tilt wall panel joints

3.7 LATEX JOINT-SEALANT SCHEDULE

- A. Latex Sealant: Where joint sealants of this type are indicated, provide products complying with the following:
 - 1. Products: Available products include the following:
 - a. Chem-Calk 600; Bostik Inc.
 - b. NuFlex 330; NUCO Industries, Inc.
 - c. LC 160 All Purpose Acrylic Caulk; Ohio Sealants, Inc.
 - d. AC-20; Pecora Corporation.
 - e. PSI-701; Polymeric Systems, Inc.
 - f. Sonolac; Sonneborn Building Products Div., ChemRex, Inc.
 - g. Tremflex 834; Tremco.
 - 2. Applications: General purpose interior caulking

- END OF SECTION -

SECTION 09900

PAINTING

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish all labor, surface preparation and coating material, tools, rigging, lighting, ventilation, and other related items of equipment and materials necessary to clean, prepare, coat, cure and cleanup a complete coating system on all interior and exterior exposed items and surfaces throughout the project, except as otherwise specified or shown on the drawings.
 - 1. Surface preparation, priming, and coats of paint specified are in addition to shop priming and surface treatment specified under other sections of the work.
 - 2. The scope of work shall include the coating of existing equipment and surfaces which are modified by this project. Color shall match existing unless otherwise noted and shall not look like patchwork - coating shall be extended to the nearest breakline, corner, etc. as may be necessary.
- B. The work includes field painting of exposed bare and covered pipes and ducts, hangers, exposed steel and iron work, tanks, vessels, and primed metal surfaces of equipment installed, except as otherwise indicated. Work shall also include, but not be limited to, coating/painting of new and existing floors and existing steel framing for crane rail.
- C. Paint all new and existing called out exposed surfaces normally painted in the execution of a new project. Where items or surfaces are not specifically mentioned, or are not specifically excluded from the painting work, paint these the same as adjacent similar materials or areas.
- D. Clean, prepare, coat, and cure all surfaces in strict accordance with the manufacturer's published recommendations and specifications.
- E. Perform all work by the use of skilled workpersons in a safe and productive manner using equipment and procedures consistent with good coating practices.
- F. Colors are indicated on the Painting Schedule in this section or shown on the drawings. If color or finish is not designated, the Engineer will select these from standard colors available for the materials system specified.

1.2 PAINTING NOT INCLUDED

- A. The following categories of work are not included as part of the field-applied finish work, or are included in other sections of these specifications.
 - 1. Shop Priming: Unless otherwise specified, shop priming of ferrous metal items is included under the various sections for structural steel, miscellaneous metal, metal fabrications, hollow metal work, and similar items. Also, for fabricated components such as shop-fabricated or factory-built mechanical and electrical equipment or accessories.

2. Pre-Finished Items: Unless unit is part of an assembly to be painted to match, i.e. - motor, or otherwise shown or specified, do not include painting when factory-finishing or installer finishing is specified.
3. Concealed Surfaces: Unless otherwise shown or specified, painting is not required on surfaces such as walls or ceilings in concealed areas and generally inaccessible areas, foundation spaces, furred areas, utility tunnels, pipe spaces, duct shafts and elevator shafts. Painting of galvanized work that will be concealed in the completed work is not required. Do not paint structural steel to be encased in concrete, nor structural steel specified not to be painted elsewhere. Except for touch-up as specified in Part 3, painting of shop primed structural steel and ferrous metals that will be concealed in the completed work is not required.
4. Finished Metal Surfaces: Metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze and similar finished materials will not require finish painting, unless otherwise specified.
5. Operating Parts and Labels: Moving parts of operating units, mechanical and electrical parts such as valve and damper operators, linkages, sinkages, sensing devices, motor and fan shafts will not require finish painting unless otherwise specified.
 - a. Do not paint over any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name, or nomenclature plates.
6. Surfaces to receive chemical coatings as specified in Section 09910.
7. Other Surfaces: Do not paint sprinkler heads, fire detection heads, integrally colored stucco, brick masonry, cast stone, stone masonry, or architectural precast concrete, unless otherwise specified.

1.3 RELATED SECTIONS SPECIFIED ELSEWHERE

- A. Section 01300 - Submittals

1.4 REFERENCES

- A. ANSI/ASTM D16 - Definitions of terms relating to paint, varnish, lacquer, and related products.
- B. ASTM D2016 - Test method for moisture content of wood.
- C. Steel Structures Painting Council (SSPC).

1.5 DEFINITIONS

- A. Conform to ANSI/ASTM D16 for interpretation of terms used in this section.

1.6 QUALITY ASSURANCE

- A. Furnish all coating materials by a single manufacturer. Solvent, thinners, and other miscellaneous materials can be supplied by the same manufacturer or by a supplier approved by the manufacturer.
- B. Furnish a statement to the Engineer from the coatings manufacturer that materials to be used by the Contractor comply with the manufacturer's recommendations.

- C. The Engineer reserves the right to require qualification of the product manufacturer and applicator, including satisfactory completion of at least two (2) projects of this nature.
- D. Manufacturer's Inspection Meeting: After set-up for painting but before commencing work, conduct a meeting at the site among representatives of the paint manufacturer, contractor, painting contractor, and Engineer to inspect the facility and review procedures recommended by the manufacturer for the prevailing conditions.

1.7 REGULATORY REQUIREMENTS

- A. Comply with all federal, state, and local health and fire regulations when handling and applying paint and coating products.

1.8 SUBMITTALS

- A. Manufacturer's Data: Submit manufacturer's technical information including paint label analysis, surface preparation and application instructions for each material proposed for use. Indicate the surfaces to which each material is to be applied.
- B. Samples; Painting: Submit samples for Engineer's review of color and texture only. Provide a listing of material and application for each coat of each finish sample.
- C. Manufacturer's Certificate: Submit a written certification from the paint manufacturer that materials furnished for the work meet or exceed specified requirements.
- D. Prepare a detailed painting schedule. List each Painting System to be used by Painting System Number, define extent and limits of each system and colors (by name and number) where appropriate.

1.9 PRODUCT DELIVERY AND STORAGE

- A. Deliver all materials to the jobsite in original, new and unopened packages and containers bearing manufacturer's name and label, and the following information;
 - 1. Name or title of material.
 - 2. Fed. Spec. number, if applicable.
 - 3. Manufacturer's stock number and date of manufacture.
 - 4. Manufacturer's name.
 - 5. Contents by volume, for major pigment and vehicle constituents.
 - 6. Thinning instructions.
 - 7. Application instructions.
 - 8. Color name and number.
- B. Store paint materials and painting tools and equipment, including solvents and cleaning material, in a well ventilated, dry area away from high heat. Do not store in buildings or structures in use or being constructed, nor leave overnight therein. Follow manufacturer's recommendations for the safe storage of paints and solvents.
- C. Take precautions to prevent fire hazards and spontaneous combustion.

1.10 SAFETY

- A. Make all necessary provisions regarding materials, equipment, personnel, procedures, and practices, to assure that the work is done safely and that the working area is maintained free of all health and safety hazards.
- B. Observe manufacturer's health and safety precautions when storing, handling, and applying coating materials and cleanup materials containing solvents and/or chemical ingredients.
- C. Direct personnel's attention to all product warnings and information given on the labels of all products.
- D. Ensure that personnel mixing and applying coating materials are equipped with adequate protective clothing and devices (including respirators).
- E. Permit no smoking in the working area.
- F. Permit no item which may produce sparks or open flames in the immediate working area.
- G. Post warning signs outside of the work to apprise personnel of the hazards in the area. Erect barriers where necessary.
- H. Return partially used coating materials that are to be retained to their original containers at the completion of each work day. Tightly reseal containers, wipe material spills, clean and return the containers to the designated storage area.
- I. Remove waste coating materials and contaminated disposable items from the job site and dispose of them at the completion of each work day. Dispose of all items and materials in strict accordance with local, state, and federal regulations.

1.11 JOB CONDITIONS

- A. Apply water-base paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 50 degrees F and 90 degrees F unless otherwise permitted by the paint manufacturers printed instructions.
- B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 45 degrees F and 95 degrees F unless otherwise permitted by the paint manufacturers printed instructions.
- C. Do not apply paint in rain, fog or mist; or when the relative humidity exceeds 85%; or to damp or wet surfaces; unless otherwise permitted by the paint manufacturer's printed instructions.
- D. Painting may be continued during inclement weather only if the areas and surfaces to be painted are enclosed and heated within the temperature limits specified by the paint manufacturer during application and drying periods.
- E. Exercise caution when attempting to paint in windy conditions. The Contractor is responsible for all damage caused by wind blown paint.

PART 2 - PRODUCTS

2.1 COLORS AND FINISHES

- A. Paint colors, surface treatments, gloss, and finishes are indicated or specified in the "schedules" of the contract documents. Color and gloss not indicated or specified shall match the Owner's existing color scheme.
- B. Final acceptance of colors will be from samples applied on the job.
- C. Paint Coordination: Review other sections of these specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates. Furnish information to manufacturer's, fabricators, suppliers and others where necessary on the characteristics of the finish materials to be used, to ensure compatible prime coats are used. Provide barrier coats over incompatible primers or remove and re-prime as required.

2.2 UNDERCOATS AND THINNERS

- A. Undercoats: Provide undercoat paint produced by the same manufacturer as the finish coats.
- B. Thinners: Use only thinners approved by the paint manufacturer, and use only within recommended limits.

2.3 ACCEPTABLE MANUFACTURER'S

- A. All coating references herein are to Tnemec Co., Inc., or Ameron. All coatings to be in contact with potable water must appear on the current Florida Department of Environmental Protection list of approved paint and protective coatings and be rated NSF approved for potable water.

2.4 PAINTING SYSTEMS

- A. Provide a minimum dry film thickness, noted as D.F.T., for the applications listed in the schedule of finishes.
- B. Touch-up shop-applied and field applied prime coats wherever damaged or bare and keep touched-up as necessary before and after installation or erection of the items, to maintain protection of the metal from rust and corrosion. Clean and touch-up with the same type of primer as initially used.
- C. Note: Color for all surfaces in contact with potable water to be white or ivory to conform to State of Florida, EPA, and FDA Regulations for contact with potable water. All potable water piping shall be Blue.

2.5 SCHEDULE OF FINISHES

- A. Steel, galvanized steel and non-ferrous metal
 - 1. Exterior of pipe, equipment and miscellaneous fabrication for indoor or outdoor exposure:

System:	Epoxy / Polyurethane
First Coat:	Series 69 Polyamidoamine Epoxy Primer
D.F.T. (Mils):	3.0 - 5.0
Second Coat:	Series 69 Polyamidoamine Epoxy Topcoat

- | | |
|--------------------|---|
| D.F.T. (Mils): | 3.0 - 5.0 |
| Third Coat: | Series 1074U Color Endura-Shield (Aliphatic Acrylic Polyurethane) |
| D.F.T. (Mils): | 2.0 - 4.0 |
| Min D.F.T. (Mils): | 11.0 |
2. Exterior of interior structural tanks, pipe, and equipment for indoor
- | | |
|--------------------|--|
| System: | Epoxy |
| First Coat: | Series 69 Polyamidoamine Epoxy Primer |
| D.F.T. (Mils): | 3.0 - 5.0 |
| Second Coat: | Series 69 Polyamidoamine Epoxy Topcoat |
| D.F.T. (Mils): | 4.0 - 6.0 |
| Total Coats: | 2.0 |
| Min D.F.T. (Mils): | 9.0 |
- B. Concrete and Masonry
1. Interior (Concrete Block)
- | | |
|---------------------|----------------------------------|
| System: | Epoxy |
| Block Filter: | Series 1254WB Masonry Filler |
| D.F.T.: | 100± SF/Gal |
| First Coat: | Series N69 Hi-Build Epoxoline II |
| D.F.T. (Mils): | 4.0 - 6.0 |
| Second Coat: | Series N69 Hi-Build Epoxoline II |
| D.F.T. (Mils): | 4.0 - 6.0 |
| Min. D.F.T. (Mils): | 10.0 |
2. Exterior (Block)
- | | |
|-------------------|-------------------------------|
| System: | Acrylic |
| Block Filler: | Series 54 |
| D.F.T.: | 100± SF/Gal |
| First Coat: | 156 - Color W.B. Enviro-Crete |
| D.F.T. (Mils.): | 4.0 - 8.0 |
| Second Coat: | 156 - Color W.B. Enviro-Crete |
| D.F.T. (Mils): | 4.0 - 8.0 |
| Min D.F.T. (Mils) | 8.0 - 16.0 |
3. Exterior (Concrete and Stucco)
- | | |
|----------------|-------------------------------|
| System: | High Build Acrylic Emulsion |
| First Coat: | 156 - Color W.B. Enviro-Crete |
| D.F.T. (Mils): | 4.0 - 8.0 |

Second Coat:	156 - Color W.B. Enviro-Crete
D.F.T. (Mils):	4.0 - 8.0
Min D.F.T. (Mils):	10.0

4. Flooring

System:	Waterborne Epoxy
First Coat:	Enviro-Pox, Series 287
D.F.T. (Mils):	2.0 - 4.0
Second Coat:	Enviro-Pox, Series 287
D.F.T. (Mils):	2.0 - 4.0
Total Coats:	2.0
Total D.F.T. (Mils)	4.0 - 8.0

C. Plastic Pipe and Fiberglass Fabrications

1. Interior

System:	Polyamide Epoxy Topcoat / Aliphatic Acrylic Polyurethane
First Coat:	Series N69 Hi-Build Epoxoline II
D.F.T. (Mils):	2.0 - 3.0
Second Coat:	Series 1074U Endura-Shield
D.F.T. (Mils):	2.0 - 3.0
Total Coats:	2.0
Total D.F.T. (Mils)	4.0

2. PVC and CPVC pipes, valves, conduits, and accessories (exterior):

System:	Polyamide Epoxy Topcoat / Aliphatic Acrylic Polyurethane
First Coat:	Series N69 Hi-Build Epoxoline II
D.F.T. (Mils):	2.0 - 3.0
Second Coat:	Series 1074U Endura-Shield
D.F.T. (Mils):	2.0 - 3.0
Total Coats:	2.0
Total D.F.T. (Mils):	6.0

2.6 SCHEDULE OF COLORS:

- A. These colors are provided for painting of piping, which has modified and furnished and installed. Not all piping listed may require painting. Building colors are to match existing.

1. Piping:

- Ammonia – White (all non-316 SST equipment)
- Product Water Sample Piping – blue

2. Walls & Floors – owner preference

3. Electrical Conduits—Color to match background.

PART 3 - EXECUTION

3.1 FIELD OBSERVATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer. Do not paint over conditions detrimental to the formation of a durable paint bond and film.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application. Do not proceed with the work until unsatisfactory conditions have been corrected.
- C. Provide all necessary equipment, labor, rigging, lighting and other equipment to facilitate inspections.
- D. The Engineer may inspect the Work at any time for compliance with the requirements of the specifications.
- E. The Engineer reserves the right to approve each phase of the Work before further work is done, to halt all Work deemed to be improper or not in compliance with the specification, and to require the Contractor to promptly correct all improper practices or deficient Work.
- F. The Contractor is responsible for any expenses incurred in association with corrective measures required as the result of improper practices and/or defective or deficient work.

3.2 GENERAL REQUIREMENTS

- A. Provide adequate explosion – proof lighting sufficient to illuminate clearly the working area without shadows during all surface preparation and coating operations.
- B. Maintain adequate and continuous explosion – proof ventilation in confined areas during all surface preparation and coating operations and during all recoat and curing periods. Provide ventilation of sufficient capacity to maintain a clear atmosphere that is well below explosive and toxic limits. Arrange the ventilation system, including all fans and temporary duct work, so that no still air spaces exist in any area.
- C. Heating devices used to create and/or maintain temperature conditions in compliance with the specification requirements are to be explosion proof and of the type that do not exhaust sooty or oily residues or any other contaminants into the air. Heating devices are not to be used when existing temperature and humidity conditions may create dew point conditions.
- D. Use equipment that is explosion proof and non-sparking. Spray equipment must be recommended by or acceptable to the coatings manufacturer.
- E. Apply caulking material only after the last coat of paint has been applied and has dried hard. Caulking material used must be of a type that is compatible with the specified coating system.

3.3 SURFACE PREPARATION

- A. Perform preparation and cleaning procedures in strict accordance with the paint manufacturer's instructions and as herein specified, for each particular substrate conditions.
- B. Surface preparation shall be conducted to prevent material from contaminating the existing water treatment process.
- C. Fiberglass and PVC materials shall be solvent cleaned according to SSPC-SP1 and scarified by best practical means. Every precaution should be taken to ensure that NO sanding dust is

drawn into the degasifiers. Painting contractor to furnish all necessary barrier, drapes, etc. to prevent contamination of the Finish Water.

3.4 MATERIAL PREPARATION

- A. Mix and prepare painting materials in accordance with manufacturer's direction.
- B. Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing and application of paint in a clean condition, free of foreign materials and residue.
- C. Stir materials before application to produce a mixture of uniform density, and stir as required during the application of the materials. Do not stir surface film into the materials. Remove the film and if necessary, strain the material before using.

3.5 APPLICATION

- A. General
 - 1. Conform to articles "General Requirements" and "Surface Preparation" prior to beginning coating application.
 - 2. Apply paint as specified and in accordance with the manufacturer's printed instructions. Unless otherwise recommended in the manufacturer's printed instructions or specified elsewhere (e.g. Bid Form, Painting System) use brushes for applying first coat on wood and use standard industrial spray equipment, either airless or conventional for applying first coat on metals other than sheetmetal and items fabricated from sheetmetal. For other coats on wood, metal and other substrates, use applicators and techniques best suited for the type of material being applied.
 - 3. Apply additional coats when undercoats, stains or other conditions show through the final coat of paint, until the paint film is of uniform finish, color and appearance. Give special attention to insure that all surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
 - 4. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces.
 - 5. Paint surfaces behind permanently-fixed equipment or furniture with prime coat only before final installation of equipment.
 - 6. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint.
 - 7. Paint the back sides of access panels, and removable or hinged covers to match the exposed surfaces.
 - 8. Finish exterior doors on tops, bottoms and side edges the same as the exterior faces, unless otherwise indicated or specified.
 - 9. Sand lightly between each succeeding enamel or varnish coat.
 - 10. Omit the field prime coat on shop-primed and touch-up painted metal surfaces which are not to be finish painted and which will not be exposed to view in the completed work. Do

- not omit primer on metal surfaces specified to be finish coated or on metal surfaces that will be exposed to view in the completed work.
11. Putty nail holes and joints after prime coat is dry.
 12. Change colors at corner of stop where colors differ between adjoining rooms or spaces and where door frames match wall colors.
 13. Provide a finished coating system free of all runs, sags, cracks, blisters, pinholes, excessive or deficient fill thickness, or any other defects. Correct any such deficiencies by proper removal of the defect and/or recoating.
 14. Apply the first-coat material to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration. Sandblasted surfaces are not to be left uncoated overnight.
 15. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.
 16. Provide minor tinting to each coat of paint in order to differentiate between coats.
- B. Minimum Coating Thickness
1. Apply each material at not less than the manufacturer's recommended spreading rate, to establish a total dry film thickness as specified or, if not specified, as recommended by the coating manufacturer.
 2. Painting of Mechanical and Electrical Work
 - a. Limit painting of mechanical and electrical work to those items exposed in equipment rooms and occupied spaces, and on the exterior of buildings or structures.
- C. Mechanical items to be painted include, but are not limited to, the following:
- a. Piping, pipe hangers, and supports
 - b. Heat exchangers
 - c. Tanks
 - d. Ductwork and insulation
 - e. Motor mechanical equipment and supports
 - f. Accessory items
1. Prime Coats
 2. Apply a prime coat of material, which is required to be painted or finished, and which has not been prime coated by others.
 3. Clean and prime unprimed ferrous metals as soon as possible after delivery of the metals to the job site.
 4. Recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.
 5. Completed Work
 6. Match approved samples for color, texture and coverage.
 7. Remove, refinish or repaint work not in compliance with specified requirements.

- D. Dry Film Gauge
 - 1. Provide “Noroson Magnetic Dry Film Thickness Gauge” as supplied by the coatings manufacturer.

3.6 CLEAN-UP AND PROTECTION

- A. Clean-up
 - 1. During the progress of the work, remove from the site all discarded paint materials, rubbish, cans and rags at the end of each work day.
 - 2. Upon completion of painting work, clean window glass and other paint – spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch or damage finished surfaces.
- B. Protection
 - 1. Protect open water holding tanks and basins of the existing water treatment plant.
 - 2. Protect work of other trades, whether to be painted or not, against damage from painting and finishing work.
 - 3. Protect surfaces that might otherwise be damaged by dripping, splashing, or spraying of paint. Correct any damage by cleaning, repairing or replacing and repainting as acceptable to the Engineer.
 - 4. Provide “Wet Paint” signs as required to protect newly-painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after the completion of paint operations.
 - 5. At the completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.
 - 6. Repair of damage caused by overspray is the contractor’s responsibility.

3.7 WARRANTY

- A. If within one year after the date of Substantial Completion, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER’S written instructions, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with nondefective Work. If CONTRACTOR does not promptly comply with terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, will be charged to the CONTRACTOR.

- END OF SECTION –

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 10400
IDENTIFYING DEVICES

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish and install identification devices. This work includes all services, materials, labor, tools and appliances as required. This includes interior and exterior piping and equipment. Provide identification devices for the following:
 - 1. Pipe
 - 2. Mechanical and Electrical Components
 - 3. Valves
 - 4. Instrumentation and Instrument Panels
- B. All new equipment and piping as shown on the PID drawings shall have identifying devices as described herein.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Section 01300 - Submittals
- B. Section 09900 - Painting
- C. Section 11512 – Ammonia System

1.3 SUBMITTALS

- A. Submit sample of each type identification of device per Section 01300. Submit manufacturer's detailed technical data for materials, fabrication and installation, including catalog of anchors, hardware, fasteners and accessories.
- B. Submit complete schedule of labels, including quantity, lettering text, size, color, per Section 01300.

PART 2 - PRODUCTS

2.1 PIPE IDENTIFIERS

- A. Paint all pipe as specified in Section 09900 or Construction Drawings.
- B. Provide wrap type identifiers similar to Seton "Setmark" on all process pipe equal to or smaller than 6" diameter.
- C. Provide identifying decals similar to Seton "Roll Form" on all process pipe larger than 6" diameter.
- D. Label pipe at maximum 20' spacing, or at least one label visible in runs of less than 20'.
- E. Provide flow direction arrows on all pipe labels.
- F. Provide labels on both sides of pipeline, unless label on back side of pipe would not be visible.

2.2 MECHANICAL AND ELECTRICAL COMPONENTS

- A. Provide engraved laminated identifying labels for all types of components scheduled below. Label to be similar to "Seton Setonite". For single line of text: 1-1/2" label height, 5/8" legend

letter height, 1/16" stroke. For double line: 2" high, 5/8" letter. Provide identifying numbers in 1/4" high letters below legend.

- B. Switch labels to be similar, 3/4" high, 1/2" lettering.

2.3 VALVES

- A. Provide engraved 316 stainless steel valve tags similar to Seton Style SBT for all valves.
- B. Attach with stainless steel jack chain.
- C. Conform to P & ID drawings for identifying numbers.

PART 3 - EXECUTION

3.1 SCHEDULES

- A. Provide labels on all new piping, control valves, mechanical and electrical components and vessels.
- B. Provide pipe identifiers on all new piping for the following pipelines (as a minimum). Field verify all pipe sizes:
 - 1. Ammonia
- C. Provide identifying labels for the following mechanical components, as a minimum. All rotating equipment shall be included.
 - 1. Controllers
 - 2. Thermal Flow Meters
- D. Mechanical and Electrical Components
 - 1. All pumps, motorized valves and other major equipment.
 - 2. All interior and exterior control panels, (electrical, hydraulic, chemical, instrument, annunciation, control, lighting).
 - 3. All switches except lighting.

- END OF SECTION -

SECTION 11512
AMMONIA SYSTEM

PART 1 - GENERAL

1.1 SCOPE

- A. This section provides for the supply, installation and placing in service flow-paced anhydrous ammonia feed control systems, direct-feed ammoniators, monochloramine analyzers, piping, fittings, instruments, panels, feed piping and injection system, and any other items needed for a complete and functional feed system for both the Main WTP and RL Pratt WTP.
- B. This section includes the requirements for the ammonia delivery systems, including valves, thermal mass flow meters and controllers, rotameters, piping, injection assemblies, etc. for both the Main WTP and RL Pratt WTP.

1.2 RELATED SECTIONS

- A. Drawings and general provisions of the Contract, including the General and Supplementary Conditions and Division 1 Specification sections, apply to this section.
- B. Section 01300 – Submittals
- C. Section 01730 – Operating and Maintenance Manuals
- D. Section 09900 – Painting
- E. Section 10400 – Identifying Devices
- F. Section 17300 – Instrumentation and Controls

1.3 QUALITY ASSURANCE

- A. All components must be products of qualified manufacturers regularly engaged in the manufacturer of anhydrous ammonia storage equipment.
- B. The manufacturer operates an ASME Pressure Vessel Shop and employs certified welders to produce the pressure vessel to ASME standards, inspection and testing as required.
- C. The manufacturer has working experience designing liquefied compressed gas systems and has successful experience with similar type systems for at least 10 years.
- D. The manufacturer maintains qualified technical engineering staff and can provide qualified service personnel to service the equipment.

1.4 SUBMITTALS

- A. Drawings
 - 1. Submit to the Engineer as provided in Section 01300, shop drawings, details of construction as follows:
 - a. Ammonia feed panels
 - b. Piping, Valves and fittings
 - c. Ammonia feed rotameters
 - d. Electrical equipment
 - e. Manufacturer's Certificate of Proper Installation

PART 2 - PRODUCTS

2.1 GENERAL

- A. All products and materials shall be certified acceptable for anhydrous ammonia service.

2.2 STAINLESS STEEL PIPING, FITTINGS AND VALVES

- A. All piping and pipe fittings associated with the storage, feed, and injection system(s) shall be in the appropriate diameters, in accordance with the piping section of this specification and the drawings.
- B. Pipe/Tubing
 - 1. All ammonia pipe and fittings shall 0.083-inch-thick stainless steel tubing, ASTM A213 seamless type 316 Swagelok style compression fittings where called out in the contract drawings.
- C. Isolation Valves
 - 1. Isolation valves shall be quarter turn ball valves, with single ferrule compression-style connections.
 - a. Valves shall be Parker model 8Z(A)-B8LJ-SSP, all type 316 stainless steel material
- D. Solenoid Valves
 - 1. Solenoids shall be 1-inch electronic solenoid suitable for anhydrous ammonia gas, normally closed energized to open.
 - 2. Solenoid valve shall be 120 VAC (60 Hz), 2-way valve, manufactured of 316 stainless steel.
 - 3. Solenoid valves shall be manufactured by ASCO model number FBX-8210D089J-1132.
- E. Ball Valves
 - 1. Stainless Steel Ball Valves: All steel ball valves shall be constructed of 316 SS, including handle, flanges, stem, stem nuts, washers, stop plate, body and ball.
 - 2. Body, bolts, and nuts shall be 316 stainless steel. Gland shall be PTFE-coated 316 SS. Seat shall be reinforced PTFE.
 - 3. Ball valves shall be designed for a pressure not less than 150 psig.
 - 4. Valves 2-1/2" and smaller shall have a compression-style fitting inlet/outlet connection and shall be Series 60, stainless steel swing-out ball valves, as manufactured by Swagelok.
- F. Pressure Reducing Regulator
 - 1. Pressure reducing regulators shall be 316 stainless steel by Swagelok model No. KHF1FFM818A20000 with 0-100 psi 316 stainless steel pressure gauges
- G. Back pressure valves:
 - 1. Back pressure valves shall be 316 stainless steel general purpose (KBP Series) by Swagelok model No. KBP1FOA4B5A30000
- H. Needle valves:
 - 1. Needle valves shall be 316 stainless steel by Swagelok model No. SS-1RS8

2.3 PVC PIPING, FITTINGS AND VALVES

- 1. Piping and valves for injection assemblies shown on construction drawings shall be schedule 80 CPVC.
- 2. Containment piping for the buried ammonia feed piping shall be schedule 40 PVC where denoted specifically on contract drawings.
- 3. Schedule 80 CPVC Pipe:

- a. Rigid CPVC (chlorinated polyvinyl chloride) compound used in the manufacture of schedule 80 pipe shall be Type IV, grade 1 as identified in ASTM D1784. The pipe shall be NSF rated for potable water.
 - b. PVC schedule 80 shall meet the requirements of ASTM standard D1785 for physical dimensions and tolerances.
 - c. The marking on PVC Schedule 80 pipe shall meet the requirements of ASTM D1785 and state the material designation code, nominal pipe size, schedule of pipe, pressure rating in psi for water at 200-degrees F., the ASTM designation number D1785 and the NSF seal for potable water.
 - d. Fittings used shall be CPVC Schedule 80 and solvent welded in accordance with ASTM D1785.
 - e. CPVC Flanges shall be schedule 80 Vanstone style. Flanged gaskets shall be manufactured from EPDM. All hardware, bolts, washers, nuts, and etc. shall be Hastelloy. Provide washers for each nut, washer material shall be of same material as the nut.
 - f. Small Diameter CPVC Pipe: CPVC pipe smaller than 4-inch shall be schedule 80 CPVC plastic pipe with solvent weld fittings in accordance with ASTM F-441.
 - g. Solvent cement shall be EP42 Gray Industrial Cement.
 - h. Threaded fittings are not permitted unless called for specifically in the contract documents.
4. Ball Valves
- a. Ball valves shall be Sch. 80 CPVC true-union construction with PTFE backed with EPDM seats and EPDM seals. The ball valves shall have a 230psi pressure rating. Ball valves to be manufactured by ASAHI/AMERICA or approved equal.

2.4 GAS MASS FLOW CONTROLLER & METER

- A. Each anhydrous ammonia flow meter shall be capable of monitoring and regulating ammonia gas flow based on setpoint values provided by the plant control system logic or at the single channel transmitter for local control. The anhydrous ammonia flow controller shall be enclosed in a IP66 ingress protection rated outdoor enclosure and be suited for operating in an anhydrous ammonia environment. Inlet and outlet connection shall be 1/2" compression tube fitting constructed of 316L stainless steel. Regulating control valve shall be integral to the flow controller device and be constructed of 316L stainless steel with Kalrez® O-rings and valve seat material. Flow controller shall utilize 4-20mA input/output analog signal communication to/from the single channel transmitter using 1/2-in FNPT conduit connections. Full capability for monitoring and regulating flow is required for acceptance.
1. Each anhydrous ammonia flow controller shall be Brooks Instruments Model No. SLAMF50S1PDD1K1A3 for 83.4 LB/D of NH₃.
 2. Output transmitter shall be single channel, Brooks Model 0251. The transmitter shall be furnished loose to the Division 17 Instrumentation Subcontractor for integration in a UL508A listed industrial control panel. Refer to Section 17300 for additional details.
 3. Furnish an additional flow controller to the Owner as a shelf-spares.
 4. Furnish Brooks Instruments Basic MultiFlo Cable kit model 778Z010ZZZ to the Owner.
 5. Furnish four (4) RTI 3M-060 replacement elements for RTI 3M-060-S04-P gas filter to the Owner as shelf-spares. Two (2) for each facility.

6. As part of the shop drawing submittal for the proposed mass flow controller, the manufacturer or manufacturer's rep shall review the filtering design provided and provide a statement in the shop drawing submittal that states the appropriate upstream treatment techniques have been provided for the mass flow controller to function properly. If manufacturer or manufacturer's representative determines additional filtering requirements are necessary for continual operation of the unit, those additional measures shall be included at no additional cost to the Owner.
7. Contractor shall submit a Certificate of Proper Installation for the proposed mass flow controller.

2.5 ROTAMETER

- A. Ammonia gas rotameter shall be glass tube variable area flow meter with 1/2-inch or 1/4-inch FNPT inlet and outlet fittings, tapered glass tube, 10-inch frame size constructed of type 316 stainless steel. Float shall be type 316 stainless steel and the meter shall be rated for ammonia gas @ 70-degrees F, 70 psig. Rotameter shall be installed per manufacturer's recommendations to prevent damage to instrument. Any failures shall be replaced at no cost to owner.
 1. Rotameter shall be a GT1600 Series Glass Tube VA as manufactured by Brooks Instruments or approved equal.
 2. Furnish two (2) units to the Owner as shelf-spares. One (1) for each facility.
- B. Furnish and install one (1) rotameter per system.

2.6 SAMPLE PUMP

- A. Sample pump shall be centrifugal magnetic drive. Pumps shall operate off 120V. Pump shall be LC-3CP-MD by March Pumps or approved equal.
- B. Pump sizing for head and flow shall be coordinated with monochloramine and total chlorine analyzer instruments.

PART 3 - EXECUTION

3.1 DRAWINGS AND DATA

- A. The data shall contain full information required to properly evaluate compliance with specifications and drawings.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's recommendations and as specified herein or shown on the plans, to ensure proper functionality of the system. Contractor is advised that debris and moisture are detrimental to the specified flow controllers and must be mitigated in accordance to manufacturer's recommendations.

3.3 EXAMINATION

- A. Verify that the ammonia feed system and associated piping systems have been cleaned, inspected, and tested.
- B. Coordinate scheduling with start-up, testing, demonstration procedures, including coordination with related systems.

3.4 PRESSURE TESTING

- A. Anhydrous Ammonia System (Gas supply):
 - 1. Stainless steel anhydrous ammonia piping, fittings, and valves downstream of ammonia tank to be completely purged (nitrogen gas purging recommended) from any foreign material prior to conducting pressure test.
 - 2. Pressure test stainless steel anhydrous ammonia piping, fittings, and valves to 20 psi with nitrogen, for a duration of 2 hours. No pressure losses shall be observed.
 - a. Safety procedures should be employed during pressure testing with nitrogen gas.
 - 3. Stainless steel anhydrous ammonia piping, fittings, and valves shall be visual leak tested where pressure testing cannot occur.
 - 4. Ensure lines are thoroughly cleaned of all debris prior to placing into service. Contractor takes responsibility for repairing chemical systems if not thoroughly flushed out.
- B. Ammonia Feed Piping:
 - 1. Stainless steel piping, fittings, and valves to be completely purged with nitrogen gas or flushed (nitrogen gas purging recommended) from any foreign material prior to conducting pressure test.
 - 2. Pressure test Stainless steel piping, fittings, and valves to 150 psi with air for a duration of 2 hours.
 - a. Pressure loss shall not be less than 2% of test pressure.
 - 3. Ensure lines are thoroughly cleaned of all debris and moisture prior to placing into service. Contractor takes responsibility for repairing Ammonia systems if not thoroughly flushed out.
- C. Filling of the new system with anhydrous ammonia indicates acceptance of system.
 - 1. If leaks develop after filling, contractor is fully responsible for any costs or damages associated with a liquid or vapor ammonia spill.
- D. The Owner will provide chemical for the ammonia tank fill through a third party.
- E. Anhydrous Ammonia System: The following required pressure testing procedures are recommended in the order as they are shown.
 - 1. From Ammonia Storage Tank to Injection Locations
 - a. Stainless steel anhydrous ammonia panel supply piping, fittings, and valves to be completely purged with nitrogen from any foreign material prior to conducting pressure test.
 - 1) Contractor is herein notified that debris and moisture are detrimental to the mass flow meter and must be mitigated in accordance to manufacturer's recommendations to prevent damage. Mass flow meters shall be replaced at no additional cost to the Owner should damage occur due to Contractor's failure to adequately purge the piping.
 - b. Pressure test stainless steel anhydrous ammonia supply piping, fittings, and valves to 40 psi with nitrogen, for a duration of 2 hours. No pressure losses shall be observed.
 - 1) Safety procedures should be employed during pressure testing with nitrogen gas.
 - 2. Buried PVC Containment Piping (Nitrogen)
 - a. Pressure test containment piping (buried) with nitrogen to 10 psi for a duration of 30 minutes. No pressure loss shall be observed.
 - 3. Contractor shall ensure lines are clean and free of moisture prior to filling of tank and system with anhydrous ammonia.

4. Upon successful completion of pressure testing listed herein, the contractor may proceed with start-up, testing, and demonstration procedures in accordance with this specification section and in coordination with the Owner and Engineer.
 - a. Owner will provide anhydrous ammonia to fill the tank upon successful completion of pressure testing and nitrogen purge.

3.5 SYSTEM STARTUP

- A. Contractor shall utilize the preferred systems integrator (Revere Controls) to develop HMI screens and programming associated with the new ammonia system.
 1. Refer to Specification Section 17300 for further details
 2. HMI screens shall be submitted to Owner for review and approval prior to startup
 3. Loop checks shall be witnessed by engineer and completed ahead of startup
- B. The contractor shall provide more than two (2) weeks-notice prior to startup.
- C. The contractor shall have the following entities on-site during system startup:
 1. CMAR with adequate staff/laborers to address construction related issues during startup
 2. The Contractor shall furnish the services of a qualified manufacturer's technical representative to perform the tasks as follows for each set of ammonia mass flow meters and controllers:
 - a. Witness and check installation.
 - b. Assist the Contractor in conducting field tests and preparing a written report as specified.
 - c. Witness and check start-up of the system.
 - d. Assist Contractor in making adjustments and modifications as necessary to optimize operation of the system components and to minimize surge pressures.
 - e. Troubleshoot and correct any mechanical or control problems with the mass flow meters and accessories that are noted during tests and start-up.
 - f. Submit written certification that the system has been properly installed, tested, and adjusted; that the system operates as specified or as required; and that all controls and protective devices operate properly, including date of final acceptance test, as well as a listing of all persons present during the tests.
 - g. Investigate and supervise correction of any operating problems that may arise up to the end of the guarantee period of the mass flow meters.
 - h. Instruct Owner in the operation and maintenance of equipment.
 - i. Electrical subcontractor with adequate staff/laborers to address construction related issues during startup
 3. Programmer/Integrator
 - a. The Contractor's programmer shall remain on-site until work is complete to Owner's satisfaction.
- D. Each system shall be started up independently and separately for the Main WTP and RL Pratt WTP. The ammonia system at each facility shall be fully functional and accepted by the Owner prior to startup of the succeeding plant. To be accepted by the owner and considered in beneficial use, each ammonia system shall be fully operational for two (2) consecutive weeks after startup, all functional testing and any final adjustments have been performed. Demolition of the existing ammonia system at each facility is only allowed after the new ammonia system at the corresponding facility is in beneficial use. Startup sequence shall be as follows:
 1. Open/adjust manual valves to normal operating positions

2. Run system in AUTO and complete necessary programming changes to achieve desired feed rate
3. Demonstrate appropriate pounds per hour feed rates are accurate with rotameters and thermal mass flow meters
4. Monitor combined chloramine residual in product stream
5. Functional test and tweak feed system to achieve desired residual
6. Repeat procedure for varying product flow conditions for each facility:
 - a. Main WTP
 - 1) Min. plant flow of 1 MGD
 - 2) Max. plant flow of 6 MGD
 - b. RL Pratt WTP
 - 1) Min. plant flow of 1 MGD
 - 2) Max plant flow of 4 MGD
- E. Upon Owner acceptance of the system, Contractor is permitted to remove old ammonia facilities.

3.6 HANDLING AND SHIPPING

- A. Contractor is to follow all manufacturer's recommendations for un-loading and installation of proposed equipment. Written instructions to accompany all shipments.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 16000
ELECTRICAL GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General Conditions, apply to all the work specified in the Electrical 16000 Sections.
- B. The Electrical and I&C drawings describe the demolition of existing equipment and installation of new chlorine feed disinfection system, Ammonia Feed system, Ammonia Leak Detection system, and related equipment.
- C. The Controls includes installation of equipment and configuration and programming of the field instruments, their signals and the existing plant PLC panel to implement the proposed new signal status and alarms.
- D. The Contractor shall refer to other discipline specifications and other electrical specifications, and coordinate the installation of the equipment based on the drawings and specifications.

1.2 LAWS, PERMITS, FEES AND NOTICES

- A. Secure and pay all permits, fees and licenses necessary for the proper execution of the work. Submit all notices and comply with all laws, ordinances, rules and regulations of any public agency bearing on the work. Contractor shall be licensed Electrical Contractor in the county of construction.

1.3 DEPARTURES

- A. If any departures from the Contract Drawings or Specifications are deemed necessary, details of such departures and the reasons therefore shall be submitted to the Engineer for advance written approval, prior to departure.

1.4 GUARANTEES

- A. Furnish written guarantee covering all materials, workmanship, labor and equipment for a period of one (1) year from the date of acceptance as described in the Contract General Conditions.
- B. The Owner reserves the right to operate and use all materials and equipment failing to meet the requirements of the Contract Documents until such unacceptable materials and equipment are replaced or repaired to the satisfaction of the Engineer.

1.5 AS-BUILT INFORMATION

- A. A set of "red-lined" electrical drawings shall be carefully maintained at the job site. Actual conditions are to be put on the drawings in red on a daily basis so the drawings will continuously show locations and routes of cable trays, conduits, pull-boxes, circuit numbers, and other information required by the Engineer.

1.6 JOB SITE VISIT

- A. Visit the project site before submitting a bid. Verify all dimensions shown and determine the characteristics of existing facilities which will affect performance of the work, but which may not be shown on drawings or described within these Specifications.

1.7 CLEANUP

- A. Maintain a continuous cleanup during the progress of the work and use appointed storage areas for supplies. The premises shall be kept free from accumulations of waste materials and rubbish.

1.8 CUTTING AND PATCHING

- A. Cut and prepare all openings, chases and trenches required for the installation of equipment and materials. Repair, remodel and finish in strict conformance with the quality of workmanship and materials in the surroundings. Obtain written permission from the Engineer for any alterations to structural members before proceeding.

1.9 MAINTENANCE

- A. Render all necessary measures to ensure complete protection and maintenance of all systems, materials and equipment prior to final acceptance. Any materials or equipment not properly maintained or protected to assure a factory new condition at the time of final acceptance shall be replaced immediately at no additional cost to the Owner.

1.10 WATERPROOFING

- A. Whenever any work penetrates any waterproofing, seal and render the work waterproof. All work shall be accomplished so as not to void or diminish any waterproofing bond or guarantee.

1.11 TESTS

- A. Conduct an operating test of equipment prior to the Engineer's approval. The equipment shall be demonstrated to operate in accordance with the requirements of these Specifications. The tests shall be performed in the presence of the Engineer or an authorized representative. The Electrical Contractor shall furnish all instruments, electricity and personnel required for the tests.

1.12 SUMMARY OF ELECTRICAL WORK

- A. The scope of work detailed in this specification section, other specification sections, and the drawings apply to both plants, the Main WTP and the RL Pratt WTP, there are some differences as far as equipment location and/or where to terminate power and PLC signals from the new proposed Ammonia feed and leak detection equipment. Furthermore, the RL Pratt WTP PLC and SCADA system will be upgraded under separate project and the termination points are based on the control panels having the upgraded controls and upgraded PLC along with a new VT SCADA system (refer to the RL Pratt WTP SCADA project drawings).
- B. At the Main WTP the existing Filter PLC shall be modified with additional terminals, fuses, and wiring along with a new 8 points analog input card (1769-IF8 AB Compact Logic Card). These modifications shall be carried out by Revere Controls along with the new terminal points, and fuses mounted along filter panel 3 din rails.

- C. Provide all labor, materials, tools, supplies, equipment and temporary utilities to complete the work shown on the drawings and specified herein. All systems are to be completely installed and fully operational. Equipment not supplied with vendor packages is to be supplied by the Contractor. Specifically, the work includes, but is not necessarily limited to:
 - 1. The demolition of the existing equipment shown on the drawings, including raceways and wiring, and related conduit and panel supports. The Contractor may keep portion of existing raceways to be reused; including field instruments to be removed, see the drawings.
 - 2. Provide and install the equipment, new analyzers, new eye wash station (where called for), sample pump where indicated, and field instruments and systems for the ammonia feed system as indicated on the drawings and specifications
 - 3. Make all these systems fully functional and install status and alarm signals as indicated to the existing PLC control panel; this includes reusing existing alarm equipment
 - 4. Coordinate with the Owner for the demolition and installation of all equipment; where existing controls and/or power equipment needs to be taken off line, the Contractor shall obtain prior approval from the plant operating staff before proceeding with any demo or installation work.
 - 5. Provide all power, controls signals, and grounding as required for all the field instruments and panels. Including all equipment installation, mounting, calibrations and configuration as required for the proper function of the equipment and instruments.
 - 6. Coordinate with Owner's programmer and provide point check support of the I/O on the drawings. At the Main plant the drawings call for the Contractor to terminate the discrete and analog signals at existing spare points of I/O at existing PLC equipment. At the RL Pratt plant the drawings call for the Contractor to terminate the discrete and analog signals at existing panels and PLC equipment that will end up being upgraded about the same time as the Ammonia Feed system.
 - 7. Provide testing, startup and training services after the installation of all equipment. Proper notice shall be provided for the testing and startup and training

1.13 CODES AND STANDARDS

- A. General Applicable provisions of the following codes and standards and other codes and standards required by the State of Florida and local jurisdictions are hereby imposed on a general basis for electrical work (in addition to specific applications specified by individual work sections of these specifications):
 - 1. U.L.: Electrical materials shall be approved by Underwriters' Laboratories, Inc. This applies to materials which are covered by U.L. standards. Factory applied labels are required.
 - 2. National Electrical Code, latest edition.
 - 3. OSHA: Standards of the Occupational Safety and Health Administration are to be complied with.
 - 4. NEMA: National Electrical Manufacturers Association Standards are to be met wherever standards have been established by that agency and proof is specifically required with material submittals for switchboards, motor control centers, panelboards, cable trays, motors, switches, circuit breakers and fuses.
 - 5. ANSI: America National Standards Institute

6. NEC: National Electrical Safety Code, latest edition.
7. NFPA 820, latest edition.
8. Florida Building Code, latest edition.
9. All National and Local codes.

1.14 ELECTRICAL TEMPORARY FACILITIES

- A. The Electrical Contractor shall include in his bid the cost of furnishing, installing, maintaining and removing all materials and equipment required to provide temporary light and power to perform his work during construction and until work is completed.
- B. Safety
 1. All reasonable safety requirements shall be observed to protect workers and the public from shock and fire hazards. Ground fault interrupters shall be employed in accordance with codes.
 2. Ground wires are required in all circuits. Ground poles are required on all outlets. All metallic cases shall be grounded.
 3. Raintight cabinets shall be used for all equipment employed in wet areas.

1.15 EXCAVATING FOR ELECTRICAL WORK

- A. General
 1. Excavation or drilling, backfill and repair of paving and grassing is to be in the bid of the Electrical Contractor. The actual work need not be performed by electrical trades. However, the Electrical Contractor shall be responsible for all excavation, drilling, dewatering, backfilling, tamping and repair of pavements and grassing required in support of electrical work. All areas disturbed by electrical work shall be repaired to their original condition, or as indicated on the drawings.
 2. Hand digging shall be required in congested areas or questionable areas.
- B. Coordination
 1. The Electrical Contractor shall check and avoid existing utilities before commencing any excavation or drilling.
 2. Contract drawings and other trades are to be consulted to avoid interferences with other utilities on this project.
 3. In the event of damage to existing utilities, the Engineer shall be immediately notified, and damage shall be immediately repaired.
 4. The Owner is to be consulted to ascertain locations of existing interferences by referring to "As Built" drawings and Owner's experience. The excavations are to be scheduled at the Owner's convenience.
- C. Precautions
 1. The Electrical Contractor must take every reasonable precaution to avoid interferences. In the vicinity of a suspected interference, excavations shall be dug by hand.

1.16 ELECTRICAL SUBMITTALS

- A. Submittals for Approval
 1. Refer to Contract General Conditions for additional instructions on the General Conditions and this Section, the more stringent requirements shall apply.

2. Shop Drawings and manufacturer's data sheets are required for all electrical materials.
3. Submittals will not be accepted for partial systems. Submit all materials for each specification section at one time. Submittals must be arranged, correlated, indexed and bound in orderly sets for ease of review.
4. Samples are to be supplied for any substitute as requested by the Engineer.
5. The following numbers of copies are required:

Shop drawings	6 sets	} Electrical Submittals
Samples	1 each	
Manufacturer's data	6 sets	
Certifications	6 sets	
Test reports	6 sets	
Warranties/Guarantees	6 sets	

6. Submit shop drawings, manufacturer's data and certifications on all items of electrical work prior to the time such equipment and materials are to be ordered. Order no equipment or materials without approval from the Engineer. Submittals will not be accepted for partial system submittals; submit all data at one time. Submittals will be promptly returned, approved, approved as noted, or not approved. Items "approved as noted" must be changed to comply with the Engineer's comments and need not be resubmitted for "approved" status. Items "not approved" are not suitable, requiring complete new submittals.
7. Time delays caused by rejection of submittals are not cause for extra charges to Owner or time extensions. Contractor shall be responsible for investigating existing systems or shop drawings in order to fully integrate the new equipment into the system. Adequate shop drawings may or may not exist for all existing systems.

B. Operation and Maintenance Manuals

1. Submit to the Engineer five (5) copies of all manufacturer's service installation and operation manuals, instructions and bulletins. These manuals shall be subject to review of the Engineer. If acceptable they shall be forwarded to the Owner. If not acceptable they shall be returned to the Contractor for revision and resubmittal. Manuals shall contain, but not be limited to, the following:
 - a. Brief description of system and basic features.
 - b. Manufacturer's name and model number for all components in the system.
 - c. List of local factory authorized service companies.
 - d. Operating instructions.
 - e. Maintenance instructions
 - f. Trouble shooting instructions
 - g. Manufacturer's literature describing each piece of equipment.
 - h. Power and control wiring diagrams
 - i. Parts lists

1.17 ELECTRICAL PRODUCTS

- A. Standards Products
 - 1. Unless otherwise indicated in writing by the Engineer, the products to be furnished under this Specification shall be the manufacturer's latest design. Units of equipment and components of the same purpose and rating shall be interchangeable throughout the project. All products shall be newly manufactured. Defective equipment or equipment damaged in the course of installation or test, shall be replaced or repaired in a manner meeting with the approval of the Engineer at no additional expense to the Owner.
- B. Delivery, Storage and Handling
 - 1. Deliver products to project properly identified with names, model numbers, types, grades, compliance labels and similar information needed for distinct identification; adequately packaged or protected to prevent deterioration during shipment, storage and handling. Store in a dry, well ventilated, indoor space, except where prepared and protected by the manufacturer specifically for exterior instructions for storage locations.
- C. Substitutions
 - 1. Comply with instructions in the Contract General Conditions and Special Conditions and obtain pre-approval of the Engineer regarding substitutions.

1.18 ELECTRICAL IDENTIFICATION

- A. Color Coding Conductor colors shall be in accordance with the N.E.C. and NFPA requirements.
- B. Nameplates
 - 1. The following items shall be equipped with nameplates: All motors, motor starters, motor control centers, pushbutton stations, control panels, time switches, disconnect or relays in separate enclosures, receptacles, wall switches, high voltage boxes and cabinets. All light switches and outlets shall carry a phenolic plate with the supply identified. Special Electrical systems shall be identified at junction and pull boxes, terminal cabinets and equipment racks.
 - 2. Nameplates shall adequately describe the function of the particular equipment involved. Nameplates for panelboards and switchboards shall include the panel designation, voltage and phase of the supply. For example, "Panel A, 277/480V, 3-phase, 4-wire". The name of the machine on the motor nameplates for a particular machine shall be the same as the one used on all motor starters, disconnect and P.B. station nameplates for that machine. Normal power nameplates shall be laminated phenolic plastic, white front and back with black core, with lettering etched through the outer covering; black engraved letters on white background. Lettering shall be 3/16 inch high at pushbutton stations, thermal overload switches, receptacles, wall switches and similar devices, where the nameplate is attached to the device plate. At all other locations, lettering shall be ¼ inch high, unless otherwise detailed on the Drawings. Nameplates shall be securely fastened to the equipment with No. 4 Phillips, round-head, cadmium plated, steel self-tapping screws or nickel-plated brass bolts. Motor nameplates may be non-ferrous metal not less than 0.003 inch thick, die stamped. In lieu of separate plastic nameplates, engraving directly on device plates is acceptable. Engraved lettering shall be filled with contrasting enamel. Equipment nameplate schedule for all equipment shall be submitted with shop drawing submittal for Engineer's approval.

3. Any jboxes, wireways, terminal boxes, disconnects, and the like shall also bear a label for identification (electrical, or instrumentation, etc)

1.19 SKILLED ELECTRICAL CRAFTSMEN

- A. Contractor shall employ and staff the project with skilled Craftsmen experienced in the project requirements.
- B. As a minimum, a Licensed Journeyman Electrician shall be present on the project at all times.
- C. Other skilled persons shall be present as the project requirements dictate including manufacturers representatives, start-up technicians, Engineers, etc.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 16000

ELECTRICAL DEMOLITION

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Contractor shall take precautionary and safety measures to assure the safety of his personnel. All wires shall be identified and disconnected from power sources before removal.
- B. Contractor shall coordinate with the Owner and Engineer.
- C. The general demolition scope shall also include the following minimum requirements whether indicated on plans or not.
 - 1. Before demolition, Contractor shall verify that the equipment is no longer needed or that the demolition will not adversely affect plant operation.
 - 2. Removal of all exposed unused conduit. Removal of all abandoned wire within raceways, cabinets, outlet boxes, trenches and the like associated with equipment shown to be removed on plans.
 - 3. Removal of all hangers and support systems which are not needed as a result of the demolition.
 - 4. Contractor shall cover all openings as a result of demolition and removals including but not limited to the following:
 - a. Cabinets and enclosures
 - b. Wall and masonry openings.
 - c. Cut conduit, instrumentation line, etc. flush with slab, fill with concrete, patch and paint holes in walls.
- D. Operational Systems
 - 1. To the fullest extent possible, all required systems shall remain operational. Contractor shall replace and/or repair existing facilities which may be damaged due to equipment removals.
 - 2. Where required wiring passes through or uses enclosures or raceways shown for demolition. Contractor shall provide raceways and wire as required to keep those systems operational.
 - 3. Contractor shall remove existing equipment in an orderly, planned and coordinated fashion. All replacement equipment shall be on site and ready to install immediately after the removal of existing equipment.
 - 4. Where demolition interrupts the normal automatic control of the existing chlorination system, Contractor shall provide procedure to take down equipment and replace with new. This procedure shall be submitted for review and approval to make sure it does not interrupt plant operation. Contractor shall obtain permission of the Owner before removing any equipment.

1.2 SPECIFIC EQUIPMENT REMOVALS

- A. The following include but do not limit the specific pieces of equipment for the removal and disposition.
 - 1. See the drawings for additional information especially the civil and mechanical sheets.

2. Demo the existing Ammonia panel and electrical and mechanical lines and piping, Demo existing Chlorine analyzer (where called for on the drawings), demo existing Ammonia leak detection and Ammonia feed system, including related raceways and the like that would not be reused, include the j-boxes and similar equipment as required; coordinate with the Engineer and the plant personnel before proceeding on the removal of this and any other equipment.
3. New power and PLC signal wiring and raceways are to be installed, where there are existing raceways where portions may be reused; the Contractor may reuse portions of these existing raceways as long as they are in good shape and reusable, refer to the drawings.
4. All raceways and equipment removed shall also include all raceway support systems and any equipment mounting equipment like unistrut, racks, pipe supports and the like, unless these are needed and therefore kept for other remaining equipment.

1.3 DISPOSITION OF EQUIPMENT

- A. Except as otherwise indicated or noted, all removed or demolished electrical equipment shall become the property of the Contractor. All rubble shall be disposed of by the Contractor.
- B. Contractor shall load, transport, and dispose of all or demolished equipment including all enclosed gear, cabinets, raceways, wire and cable, supports, MCC sections, starters, circuit breakers, buckets, panel covers, light fixtures, rigid galvanized steel conduit and the like.

- END OF SECTION -

SECTION 16010

BASIC ELECTRICAL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Requirements specified within this section apply to all sections in Division 16, ELECTRICAL. Work specified herein shall be performed as if specified in the individual sections. Especially refer to raceway, conductors and grounding separate specification sections.

1.2 DESIGN REQUIREMENTS

- A. All electronic boards as part of electrical equipment shall be fungus-resistant.
- B. All electrical equipment shall be rated for the conditions the equipment is installed in.

1.3 ELECTRICAL SUBCONTRACTOR QUALIFICATIONS

- A. The electrical subcontractor shall meet or exceed the criteria described below:
 - 1. The electrical subcontractor shall be licensed by the State of Florida.
 - 2. The electrical subcontractor shall have successfully completed electrical construction on three wastewater plant projects within the past five years.
 - 3. The electrical subcontractor shall have, in their employ, the following full time employees that will be assigned to perform the electrical work of this contract:
 - a. A minimum of (1) Licensed Master Electrician who is overall responsible for the supervision of personnel performing the construction, installation startup and testing of all electrical related facilities and systems.
 - b. A minimum of (1) Licensed Journeyman Electrician responsible for the daily construction activities and guidance of the electrical contractor's on site employees. The Licensed Journeyman's primary assignment will be the construction of the electrical facilities of this project until project completion. The Licensed Journeyman shall be certified in Palm Beach County or shall meet the reciprocity standards of Florida State Statue 489 Part II.

1.4 STANDARDS, CODES, PERMITS, AND REGULATIONS

- A. Perform all work; furnish and install all materials and equipment in full accordance with the latest applicable rules, regulations, requirements, and specifications of the following:
 - 1. Local Laws and Ordinances.
 - 2. State and Federal Laws.
 - 3. 2014 NFPA 70 National Electrical Code (NEC).
 - 4. State Fire Marshal.
 - 5. Underwriters' Laboratories (UL).
 - 6. National Electrical Safety Code (NESC).
 - 7. American National Standards Institute (ANSI).
 - 8. National Electrical Manufacturer's Association (NEMA).
 - 9. National Electrical Contractor'S Association (NECA) Standard of Installation.
 - 10. Institute of Electrical and Electronics Engineers (IEEE).

11. Insulated Cable Engineers Association (ICEA).
 12. Occupational Safety and Health Act (OSHA).
 13. National Electrical Testing Association (NETA).
 14. American Society for Testing and Materials (ASTM).
 15. 2017 Florida Building Code, including Palm Beach County amendments.
 16. 2018 NFPA 70E Electrical Safety in the Workplace.
- B. Conflicts, if any, which may exist between the above items, will be resolved at the discretion of the Village.
- C. Wherever the requirements of the Specifications or Drawings exceed those of the above items, the requirements of the Specifications or Drawings govern. Code compliance is mandatory. Construe nothing in the Contract Documents as permitting work not in compliance with these codes.
- D. Obtain all permits and pay all fees required by any governmental agency having jurisdiction over the work. Arrange all inspections required by these agencies. On completion of the work, furnish satisfactory evidence to the Village that the work is acceptable to the regulatory authorities having jurisdiction.

1.5 ELECTRICAL COORDINATION

- A. Work Provided Under this Contract – Train 7 Buildout:
1. Coordinate installation requirements with scheduling with Division 11 Equipment.
 2. Furnish and install components necessary for modification of existing motor control centers as shown in the drawings and described in the specifications for a complete working system in place.
 3. Furnish and install all miscellaneous electrical including terminations, fittings, etc. not necessarily specified in the drawings and specifications, but obviously necessary, for complete working systems in place.
 4. Furnish and install all conduit and wire required for control systems as described in the drawings and specifications, complete in place.
 5. Provide and install all grounding, bonding and lightning protection systems as described in the drawings and specifications complete in place.
- B. Temporary Power:
1. Contractor shall coordinate with Village plant personnel for temporary construction power as needed.

1.6 SUBMITTALS

- A. Quality Control Submittals:
1. Voltage Field Test Results.
 2. Conductor megger tests results.
 3. Voltage Balance Report.
 4. Equipment Line Current Report.
 5. Factory test certification and reports for all major electrical equipment.
 6. Site test certification and reports as specified in other Division 16, ELECTRICAL sections.
 7. Provide complete conduit and equipment plan layouts for all areas of the work for major power, instrumentation, control and communications raceways, both interior and exterior, showing routing, size, and stub up locations for buried or in-slab conduits.

- B. The following information shall be provided for all electrical equipment:
 - 1. A copy of each specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check-marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the Contractor, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph. The remaining portions of the paragraph not underlined shall signify compliance on the part of the Contractor with the specifications. The submittal shall be accompanied by a detailed, written justification for each deviation.
 - 2. Electrical equipment submittals shall be made by specification section. Submit one package per specification section and do not group multiple specification sections under one submittal package.

1.7 ENVIRONMENTAL CONDITIONS

- A. All chemical rooms and areas shall be corrosive areas.
- B. Electrical equipment in rooms/areas designated as Classified by NFPA 70 (national electrical code) as Division 1 or Division 2 shall meet all requirements set forth for that classification as described in NEC article 500.
- C. All indoor chemical and process equipment areas shall be considered wet locations.

1.8 INSPECTION OF THE SITE AND EXISTING CONDITIONS

- A. The Electrical Drawings were developed from past record drawings and information supplied by the Village. Verify all scaled dimensions prior to submitting bids.
- B. Before submitting a bid, visit the site and determine conditions at the site and at all existing structures in order to become familiar with all existing conditions and electrical system which will, in any way or manner, affect the work required under this Contract. No subsequent increase in Contract cost will be allowed for additional work required because of the Contractor's failure to fulfill this requirement.

1.9 RESPONSIBILITY

- A. The Contractor shall be responsible for:
 - 1. Complete systems in accordance with the intent of these Contract Documents.
 - 2. Coordinating the details of facility equipment and construction for all Specification Divisions that affect the work covered under Division 16, ELECTRICAL.
 - 3. Furnishing and installing all incidental items not actually shown or specified, but which are required by good practice to provide complete functional systems.

1.10 INTENT OF DRAWINGS

- A. Electrical plan drawings show only general location of equipment, devices, and raceway, unless specifically dimensioned. The Contractor shall be responsible for the proper routing of raceway, subject to the approval of the Village.
- B. All new electrical equipment sizes, characteristics, facilities and room layouts are based on manufacturer Eaton. If the Contractor furnishes a different manufacturer, the Contractor shall

be responsible for fitting all the equipment in the available space as shown on the drawings, or shall re-design the facilities at no additional cost to the owner. Re-design shall be submitted to the Village for review and approval. Any expenses associated with the review and approval of the redesign shall be the responsibility of the Contractor.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Provide materials and equipment listed by UL wherever standards have been established by that agency.
- B. Equipment Finish:
 - 1. Provide manufacturers' standard finish and color, except where specific color is indicated.
 - 2. If manufacturer has no standard color, provide equipment with ANSI No. 61, light gray color.

PART 3 - PART 3 - EXECUTION

3.1 GENERAL

- A. Electrical Drawings show general locations of equipment, devices, and raceway, unless specifically dimensioned.
- B. Install work in accordance with NECA Standard of Installation, unless otherwise specified.
- C. Prior to energization of any power distribution equipment installed, or modified, under this contract, the contractor shall implement all protective device settings as determined by the Electrical Systems Analysis Study specified in section 16015, where such study is specified.
- D. Prior to final completion inspection, Contractor shall apply all applicable arc flash labels to electrical power distribution equipment as determined by the Electrical Systems Analysis Study specified in section 16015, where such study is specified.

3.2 LOAD BALANCE

- A. Drawings and Specifications indicate circuiting to electrical loads and distribution equipment.
- B. Balance electrical load between phases as nearly as possible on switchboards, panelboards, motor control centers, and other equipment where balancing is required.
- C. When loads must be reconnected to different circuits to balance phase loads, maintain accurate record of changes made, and provide circuit directory that lists final circuit arrangement.

3.3 CHECKOUT AND STARTUP

- A. Voltage Field Test:
 - 1. Check voltage at point of termination of power company supply system to project when installation is essentially complete and is in operation.
 - 2. Check voltage amplitude and balance between phases for loaded and unloaded conditions.
 - 3. Record supply voltage (all three phases simultaneously on the same graph) for 24 hours during normal working day.
 - a. Submit Voltage Field Test Report within 5 days of test.
 - 4. Unbalance Corrections:

- a. Make written request to power company to correct condition if balance (as defined by NEMA) exceeds 1 percent, or if voltage varies throughout the day and from loaded to unloaded condition more than plus or minus 4 percent of nominal.
 - b. Obtain a written certification from a responsible power company official that the voltage variations and unbalance are within their normal standards if corrections are not made.
- B. Equipment Line Current Tests:
 1. Check line current in each phase for each piece of equipment.
 2. Make line current check after Power Company has made final adjustments to supply voltage magnitude or balance.
 3. If any phase current for any piece of equipment is above rated nameplate current, prepare Equipment Line Phase Current Report that identifies cause of problem and corrective action taken.
- C. Startup:
 1. Demonstrate satisfactory operation of all electrical equipment. Participate with other trades in all startup activities.
 2. Assist the Instrumentation and Control (I&C) Contractor in verifying signal integrity of all control and instrumentation signals.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES

SECTION 16050

BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 SUBMITTALS

- A. Submit data sheets on all items per Section 16000.

1.2 CODES AND STANDARDS

- A. General applicable provisions of the following codes and standards and other codes and standards required by the State of Florida and local jurisdictions are hereby imposed on a general basis for electrical work (in addition to specific applications specified by individual work sections of these specifications):
 - 1. U.L.: Electrical materials shall be approved by the Underwriters' Laboratories, Inc. This applies to materials which are covered by U.L. standards. Factory applied labels are required.
 - 2. National Electrical Code
 - 3. OSHA: Standard of the Occupational Safety and Health Administration are to be complied with.
 - 4. NEMA: National Electrical Manufacturers Association Standards are to be met wherever standards have been established by that agency, and proof is specifically required with material submittals for switchboards, motor control centers, panelboards, cable trays, motors, switches, circuit breakers, and fuses.
 - 5. ANSI: American National Standards Institute
 - 6. NESC: National Electrical Safety Code

PART 2 - PRODUCTS

2.1 GROUNDING MATERIALS

- A. All ground rods shall be 20 foot 5/8" copperclad, unless otherwise indicated.
- B. Around wires shall be soft drawn copper sized per National Electrical Code, unless otherwise indicated.

2.2 CONDUIT

- A. PVC Conduit
 - 1. PVC conduit shall be Schedule 80 or Schedule 40 unless otherwise noted and shall be U.L. approved. Comply with Federal Spec WC-1094 and NEMA TC-1.
 - 2. Typically, Schedule 80 shall be used along exposed or above ground installations, unless otherwise indicated. Schedule 40 is used for underground installations.
- B. Flexible Conduit
 - 1. All flexible conduits shall be liquidtight, made of corrosion resistant plated steel with extruded polyvinyl covering and watertight connectors.
- C. PVC Coated RGS
 - 1. Provide PVC coated RGS raceway system including all fittings, seal offs, etc.

2. PVC coated inside and outside.
3. Provide Robroy, Ocal or an approved equal.
- D. Aluminum Rigid Metal Conduit, (RMC)
 1. Conduit shall be manufactured in accordance with ANSI(r) C80.5, UL-6A and federal specifications WW-C581.
 2. Provide UL listed conduit and fittings.
 3. Provide Wheatland Tube or an approved equal.
- E. PVC Coated Aluminum RMC, OCAL
 1. 2 MIL Blue urethane coated interior
 2. 40 MIL PVC coated exterior.
 3. U.L. listed

2.3 CABLE, WIRE AND CONNECTORS

- A. 600 Volt Power Wiring
 1. Individual conductors shall be rated for 600 volts and shall meet the requirements below:
 - a. Conductors shall be stranded.
 - b. All wire shall be brought to the job in unbroken packages and shall bear the date of manufacturing; not older than 12 months.
 - c. Type of wire shall be THWN except where required otherwise by the contract drawings.
 - d. No wire smaller than No. 12 gauge shall be used unless specifically indicated.
 - e. Conductor metal shall be copper.
 - f. All conductors shall be meggered after installation. Megger testing shall exceed 50 mega ohms.
- B. Instrumentation Cable
 1. Process instrumentation wire shall be 16 gauge twisted pair, copper, 600 V., aluminum tape shielded, polyvinyl chloride jacketed, as manufactured by Houston Wire and Cable HW-106 or an approved equal.
- C. Control Cable
 1. Multi-conductor control cable shall be stranded 14 gauge, copper, 600 V. THWN insulated overall shielded with PVC jacket, as manufactured by Houston Wire and Cable HW-151 or an approved equal.

2.4 TERMINATIONS AND SPLICES (600 VOLTS AND LESS)

- A. Terminations of power cable shall be by means of U.L. approved connectors. All connectors shall meet U.L. 486B and shall be compatible with the conductor material.
- B. Terminate all control and instrumentation cable with fork type compression lugs.
- C. Splicing of power, control, or instrumentation wiring will not be allowed except by written approval of the Engineer. Where splicing is allowed, splices shall be made with approved compression connectors, and splices shall be made waterproof regardless of location.

2.5 BOXES

- A. Boxes for wiring devices, switches and receptacles installed outdoors or in chemical rooms shall be weatherproof fiberglass with polycarbonate cover plates.

2.6 PULL BOXES AND SPLICE BOXES

- A. Location
 - 1. Units used outdoor or in a damp or corrosive environment shall be 316 ss, above grade or concrete in the ground unless otherwise indicated on plans.
 - 2. Units used indoors in dry and clean environments shall be NEMA 1.
- B. Size
 - 1. Units shall be sized per NEC as minimum.
- C. Required Units
 - 1. Plans depict minimum requirements. Additional units shall be provided as may be required to complete raceway systems.

2.7 MOUNTING AND SUPPORTING ELECTRICAL EQUIPMENT

- A. Furnish and install all supports, hangers, and inserts required to mount fixtures, conduits, cables, pull boxes, and other equipment.
- B. Support system used indoors in clean, dry and air-conditioned areas shall be galvanized steel. In chemical rooms it shall be 316SS hardware and unistrut shall be Aickenstrut Series E F2000 FRP unistrut
- C. Perforated straps and wires are not permitted for supporting electrical devices. Anchors shall be of approved types.
- D. All supports, hangers, hardware, fasteners, etc. shall be 316 stainless steel. Supports shall be selected to avoid galvanic reactions. Support devices shall be submitted for approval.
- E. Provide trapeze, bridge systems or wall bracketed cantilevered system to support the raceway system. In chemical rooms materials shall be FRP like straps and unistrut as manufactured by Aickenstrut Series E F2000 FRP unistrut
- F. Spacing of support systems shall be per NEC. Provide spacing of conduits according to the NEC and the materials used. For PVC conduit, refer to NEC table 347-8.
- G. Plans depict minimum requirements. Provide additional units as required to complete raceway system.
- H. Refer to material schedule on plans. These specified requirements shall apply to all requirements not included in the material schedule.
- I. Provide all caps for Strut cuts.

2.8 SAFETY DISCONNECT SWITCH

- A. Fusible and non-fusible disconnect switches shall be heavy-duty, NEMA type H, quick-make, quick-break, visible blades, 600 volt, 3 pole with full cover interlock. Switches shall have copper lugs.
- B. Unless otherwise indicated, disconnects shall be 3-pole, nonfusible switch in a NEMA 4x, stainless steel enclosure.
- C. Switches shall be horsepower rated, heavy duty as manufactured by the Square D Co., or equal.
- D. Units provided as main service disconnects, shall be fused and labeled for service equipment.
- E. Provide auxiliary contracts as may be required by drawings.
- F. Units shall be padlockable.
- G. For small motor loads less than 2HP, such as motor operated valves and the like. U.L. listed motor rated manual switches shall be used; unless otherwise indicated, provide NEMA 4 enclosures, padlockable.

2.9 HARDWARE AND FASTENER EQUIPMENT

- A. All equipment located outdoors or in process areas shall be 316 stainless steel.
- B. Equipment located indoors in clean, air-conditioned, environments may be galvanized steel.
- C. Located inside chemical rooms shall be 316SS hardware and FRP unistrut, Aickenstrut Series E F2000 FRP unistrut.

PART 3 - EXECUTION

3.1 GROUNDING

- A. Provide ground system as indicated on the drawings and as required by the National Electrical Code.
- B. All raceways require grounding conductors. Metallic raceways are not adequate grounding paths. Bonding conductors through the raceway systems shall be continuous from main switch ground buses to panel ground bars of the panelboards, and from panel grounding bars of panelboards and motor control centers to branch circuit outlets, motors, lights, etc. THESE GROUND CONDUCTORS ARE REQUIRED THROUGHOUT THE PROJECT REGARDLESS OF WHETHER CONDUIT RUNS SHOW GROUND CONDUCTORS ON THE DRAWINGS.
- C. All connections made below grade shall be of the exothermic type.
- D. The grounding system test shall not exceed a 48 hour span dry resistance of 10 ohms. Additional grounding to meet this requirement shall be installed at no extra cost. Grounding and bonding connections shall not be painted.

3.2 CONDUIT

- A. Locations:
Conduits shall be used as follows:
 - 1. Refer to schedule on drawings.
- B. Installation
 - 1. Conduits subjected to rough handling or usage shall be removed from the premises.
 - 2. Conduits must be kept dry and free of water or debris with approved pipe plugs or caps. Care shall be given that plugs or caps be installed before pouring of concrete.
 - 3. Where conduits are installed in the Ammonia equipment areas, these shall be PVC coated RGS and have explosion sealoffs for power and control raceways; refer to the plans.
 - 4. Where conduits pass through exterior concrete walls or fittings below grade, the entrances shall be made watertight.
 - 5. In furred ceilings, conduit runs shall be supported from structure, not furring.
 - 6. Conduits entering panelboards, pull boxes, or outlet boxes shall be secured in place by galvanized locknuts and bushings, one (1) locknut outside and one (1) locknut inside of box with bushing on conduit end. The locknuts shall be tightened against the box without deforming the box. Bushings shall be of the insulating type.
 - 7. Field conduit bends shall be made with standard tools and equipment manufactured especially for conduit bending.
 - 8. Where embedded conduits cross expansion joints, furnish and install offset expansion joints or sliding expansion joints. Sliding expansion joints shall be made with straps and clamps.

9. Exposed runs of conduits shall be installed with runs parallel or perpendicular to walls, structural members or intersections of vertical planes and ceilings, with right angle turns consisting of symmetrical bends. No attempts are made in plans to show required pull boxes, gutters, etc. necessary for the construction of the raceway system but the Contractor shall provide these raceways as may be required.
10. Conduits in structural slabs shall be placed between the upper and the lower layers of reinforcing steel, requiring careful bending of conduits. Conduits embedded in concrete slabs shall be spaced not less than eight (8) inches on centers or as widely spaced as possible where they converge at panels or junction boxes. Conduits running parallel to slab supports, such as beams, columns and structural walls shall be installed not less than 12 inches from such supporting elements. To prevent displacement during concrete pour, saddle supports for conduit, outlet boxes, junction boxes, inserts, etc., shall be secured.
11. Conduit runs shall always be concealed except where indicated on plans.
12. Pull lines shall be installed in all empty conduits. All pull wires shall be identified with conduit number at each end.
13. Where conduits are run individually, they shall be supported by approved pipe straps secured by means of toggle bolts or tapcons on hollow masonry; tapcons on concrete or solid masonry; machine screws or bolts on metal surfaces and wood screws on wood construction. The use of perforated straps or wires will not be permitted.
14. Wire shall not be installed until all work of any nature that may cause damage is completed, including pouring of concrete. Mechanical means shall not be used in pulling in wires No. 8 or smaller.
15. Underground conduits not under concrete slabs are to be buried at least two (2) feet below finished grade for circuits rated 600 volts or less, except under traffic areas where motor vehicles may cross. Under traffic areas, conduits are to be buried at least three (3) feet below finished grade.
16. All conduits shall be cleaned by pulling a brush swab through before installing cables.
17. All conduits shall be sealed at each end with electrical putty. Special care shall be taken at all equipment where entrance of moisture could be detrimental to equipment. Approved backing gauze is required prior to the installation of conduit putty.
18. No more than (2) feet of flexible conduit shall be used at connections of all motors, transformers, motor operated valve and gates, instruments and other items of equipment where vibration is present. It shall be supported where required with stainless steel bands.
19. PVC conduit shall be supported to walls and slabs using carlon snap strap conduit wall hangers. Two hole PVC conduit clamps shall not be permitted.
20. Duct seal all conduits at both ends.

3.3 WIRES, CABLES AND CONNECTIONS

- A. Cables pulled into conduits shall be pulled using pulling eyes attached to conductors.
- B. Shields shall be grounded at only one termination point.

3.4 BOXES

- A. Installation of boxes shall be in accordance with the National Electrical Code requirements.
- B. Boxes shall be mounted plumb and level in accessible locations and mounting shall be secure, vibration resistant and galvanically compatible. Hardware shall be used that is specifically

intended for the purpose. When mounted in corrosive, damp or wet locations, stainless steel hardware shall be utilized.

3.5 WIRING DEVICES

- A. Wiring devices shall be installed in device boxes approved for the application. All connections shall be made with screw terminals. Wiring devices shall be Leviton or approved equal.
- B. Wire devices on UPS systems shall be isolated ground, colored orange.
- C. Cover plates shall be provided as follows except as otherwise noted.
 - 1. Interior finished area – brush alum.
 - 2. Wet areas – gasketed plastic with flip cover.
- D. Receptacles installed outdoors, below grade, or in areas other than clean and dry environments shall be GFI and weatherproof.

3.6 SUPPORTING DEVICES

- A. All items shall be, 316 stainless steel, and types approved by Underwriters' Laboratories, unless otherwise indicated.

3.7 CLEANING

- A. All electrical equipment enclosures shall be thoroughly cleaned before acceptable by the Owner. As a minimum, Contractor shall remove all debris including stripped wire insulation, dirt, empty food wrappers, soda cans, water bottles, coffee cups, etc.

- END OF SECTION -

SECTION 16110

RACEWAYS

PART 1 - GENERAL

1.1 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. American Association of State Highway and Transportation Officials (AASHTO): Division I, Standard Specifications for Highway Bridges, Fourteenth Edition.
 - 2. American National Standards Institute (ANSI):
 - a. C80.1, Rigid Steel Conduit-Zinc Coated.
 - b. CS0.5, Rigid Aluminum Conduit.
 - 3. American Society for Testing and Materials (ASTM):
 - a. A123 El, Standard Specification for Zinc-Coated (Galvanized) Coatings on Iron and Steel Products.
 - b. C857, Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures.
 - 4. National Electrical Contractor's Association, Inc. (NECA): 5055, Standard of Installation.
 - 5. National Electrical Manufacturers Association (NEMA):
 - a. TC 2, Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80).
 - b. TC 3, PVC Fittings for Use with Rigid PVC Conduit and Tubing.
 - c. TC 6, PVC and ABS Plastic Utilities Duct for Underground Installation.
 - 6. National Fire Protection Association (NFPA): 70, National Electrical Code. (NEC)
 - 7. Underwriters Laboratories, Inc. (UL):
 - a. 1, Standard for Safety Flexible Metal Conduit.
 - b. 6, Standard for Safety Rigid Metal Conduit.
 - c. 360, Standard for Safety Liquid-Tight Flexible Steel Conduit.
 - d. 514B, Standard for Safety Fittings for Conduit and Outlet Boxes.
 - e. 514C, Standard for Safety Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers.
 - f. 651, Standard for Safety Schedule 40 and 80 PVC Conduit.
 - g. 651A, Standard for Safety Type EB and Rigid PVC Conduit and HDPF Conduit.
 - h. 797, Standard for Safety Electrical Metallic Tubing.
 - i. 870, Standard for Safety Wireways, Auxiliary Gutters, and Associated Fittings.
 - j. 1242, Standard for Safety Intermediate Metal Conduit.
 - k. 1660, Standard for Safety Liquid-Tight Flexible Nonmetallic Conduit.

1.2 SUBMITTALS

- A. Shop Drawings:
 - 1. Manufacturer's Literature:
 - a. Rigid aluminum conduit.
 - b. PVC Schedule 80 conduit.
 - PVC Coated RGS conduit & fittings
 - c. Flexible metal, liquid-tight conduit.

- d. Flexible, nonmetallic, liquid-tight conduit.
- e. Conduit fittings.
- f. Wireways.

1.3 UL COMPLIANCE

- A. Materials manufactured within scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL listing mark.

PART 2 - PRODUCTS

2.1 CONDUIT AND TUBING

- A. Rigid Aluminum Conduit:
 - 1. Meet requirements of ANSI C80.5 and UL 6.
 - 2. Material: Type 6063, copper-free aluminum alloy.
- B. PVC Schedule 80 Conduit:
 - 1. Meet requirements of NEMA TC 2 and UL 651.
 - 2. UL listed for use in aboveground and underground direct burial, concealed or direct sunlight exposure, including areas subject to physical damage and 90 degrees C insulated conductors.

2.2 FITTINGS

- A. Rigid Aluminum Conduit:
 - 1. General:
 - a. Meet requirements of UL 514B.
 - b. Type: Threaded, copper-free. Set screw fittings not permitted.
 - c. for the PVC Coated RGS: Robroy or Thomas and Betts Ocal are acceptable vendors for PVC coated fittings. These fittings and conduits shall be inside and outside coated
 - 2. Insulated Bushing:
 - a. Material: Cast aluminum, with integral insulated throat, rated for 150 degrees C.
 - b. Manufacturer: O.Z. Gedney; Type AB.
 - 3. Grounding Bushing:
 - a. Material: Cast aluminum with integral insulated throat, rated for 150 degrees, with solderless lugs.
 - b. Manufacturer: O.Z. Gedney; Type ABLG.
 - 4. Conduit Hub:
 - a. Material: Cast aluminum, with insulated throat.
 - b. Manufacturers:
 - 1) O.Z. Gedney; Type CHA.
 - 2) T & B; Series 370AL.
 - 5. Conduit Bodies:
 - a. Manufacturers (For Normal Conditions):
 - 1) Appleton; Form 85 threaded Unilets.
 - 2) Crouse-Hinds; Mark 9 or Form 7-SA threaded condulets.
 - 3) Killark; Series O Electrolets.
 - b. Manufacturers (For Hazardous Locations):

- 1) Appleton.
- 2) Crouse-Hinds.
- 3) Killark.
6. Couplings: As supplied by conduit manufacturer.
7. Conduit Sealing Fitting Manufacturers:
 - a. Appleton; Type EYF-AL or EYM-AL.
 - b. Crouse-Hinds; Type EYS-SA or EZS-SA.
 - c. Killark; Type EY or EYS.
8. Drain Seal Manufacturers:
 - a. Appleton; Type EYDM-A.
 - b. Crouse-Hinds; Type EYD-SA or EZD-SA.
9. Drain/Breather Fitting Manufacturers:
 - a. Appleton; Type ECDB.
 - b. Crouse-Hinds; ECD.
10. Expansion Fitting Manufacturers:
 - a. Deflection/Expansion Movement: Steel City; Type DF-A.
 - b. Expansion Movement Only: Steel City; Type AF-A.
11. Cable Sealing Fittings: To form watertight nonslip cord or cable connection to conduit.
 - a. Bushing: Neoprene at connector entry.
 - b. Manufacturer: Appleton CG-S.
- B. PVC Conduit and Tubing:
 1. Meet requirements of NEMA TC-3.
 2. Type: PVC, slip-on.

2.3 WIREWAYS

- A. Meet requirements of UL 870.
- B. Type: Steel-enclosed, with removable, hinged cover.
- C. Rating: Outdoor raintight if outdoor, and indoor if indoor.
- D. Finish: Gray, baked enamel.
- E. Manufacturers:
 1. Square D.
 2. B-Line Systems, Inc.

2.4 ACCESSORIES

- A. Identification Devices:
 1. Raceway Tags:
 - a. Material: Permanent, nylon.
 - b. Shape: Round.
 - c. Raceway Designation: Pressure stamped, embossed, or engraved.
 - d. Tags relying on adhesives or taped-on markers not permitted.
 2. Electric Detectable Warning Tape:
 - a. Material: Polyethylene, 4-mil gauge with solid aluminum foil core.
 - b. Color: Red, unless otherwise noted.
 - c. Width: Minimum 6-inch.
 - d. Designation: Warning on tape that electric circuit is located below tape.

- e. Manufacturers:
 - 1) Blackburn.
 - 2) Griffolyn Co.
 - 3) Or approved equal.
- 3. Buried Raceway Marker:
 - a. Material: 6"x6"x12" concrete monument, consisting of double-ended arrows, straight for straight runs and bent at locations where runs change direction.
 - b. Designation: Incise to depth of 3/32 inch, ELECTRIC CABLES. in letters 1/4-inch high.
 - c. Minimum Dimension: 1/4-inch thick, 10 inches long, and 3/4-inch wide.
- B. Raceway Coating:
 - 1. Material: Bitumastic or plastic tape coating.
 - 2. Manufacturers:
 - a. Koppers bitumastic; No. 505.
 - b. Scotchwrap; No. 51, plastic tape.
- C. Wraparound Duct Band:
 - 1. Material: Heat-shrinkable, cross-linked polyolefin, precoated with hot-melt adhesive.
 - 2. Manufacturer: Raychem; Type TWDB.
- D. PVC Coated RGS:
 - 1. Provide PVC coated RGS conduits and fittings coated inside and outside.

PART 3 - EXECUTION

3.1 GENERAL

- A. Conduit and Tubing sizes shown are based on the use of copper conductors.
- B. All installed Work shall comply with NECA 5055.
- C. Crushed or deformed raceways not permitted.
- D. Maintain raceway entirely free of obstructions and moisture.
- E. Immediately after installation, plug or cap raceway ends with watertight and dust-tight seals until time for pulling in conductors.
- F. Aluminum Conduit: Do not install in direct contact with concrete.
- G. Sealing Fittings: Provide drain seal in vertical raceways where condensate may collect above sealing fitting.
- H. Avoid moisture traps where possible. When unavoidable in exposed conduit runs, provide junction box and drain fitting at conduit low point.
- I. Group raceways installed in same area.
- J. Proximity to Heated Piping: Install raceways minimum 12 inches from parallel runs.
- K. Follow structural surface contours when installing exposed raceways. Avoid obstruction of passageways.
- L. Run exposed raceways parallel or perpendicular to walls, structural members, or intersections of vertical planes.
- M. Install watertight fittings in outdoor, underground, or wet locations.
- N. Paint threads, before assembly of fittings, of rigid aluminum conduit with anti-oxidation compound.

- O. All metal conduit to be reamed, burrs removed, and cleaned before installation of conductors, wires, or cables.
- P. Do not install raceways in concrete equipment pads, foundations, or beams.
- Q. Horizontal raceways installed under floor slabs shall lie completely under slab, with no part embedded within slab.
- R. Install concealed, embedded, and buried raceways so that they emerge at right angles to surface and have no curved portion exposed.

3.2 CONDUIT APPLICATION

- A. Diameter: Minimum 3/4 inch.
- B. Exterior, Exposed:
 - 1. PVC Schedule 80 for corrosive chemical areas.
 - 2. All other locations: Rigid Aluminum.
- C. Interior, Exposed:
 - 1. PVC Schedule 80 for corrosive chemical areas.
 - 2. All other locations: Rigid Aluminum.
- D. Direct Earth Burial: PVC Schedule 80.
- E. Concrete-Encased Raceways: PVC Schedule 40.
- F. Under Slabs-On-Grade: PVC Schedule 40.

3.3 CONNECTIONS

- A. For motors, wall or ceiling mounted fans and unit heaters, dry type transformers, electrically operated valves, instrumentation, and other equipment where flexible connection is required to minimize vibration:
 - 1. Conduit Size 4 Inches or Less: Flexible metal, liquid-tight conduit.
 - 2. Conduit Size Over 4 Inches: Nonflexible.
 - 3. Corrosive Areas: Flexible, nonmetallic, liquid or PVC-coated metallic, liquid-tight.
 - 4. Length: 18-inch minimum, 60-inch maximum, of sufficient length to allow movement or adjustment of equipment.
- B. Outdoor Areas, Process Areas Exposed to Moisture, and Areas Required to be Oiltight and Dust-Tight: Flexible metal, liquid-tight conduit.
- C. Under Equipment Mounting Pads: Rigid galvanized steel conduit.
- D. Exterior Light Pole Foundations: Rigid galvanized steel conduit.

3.4 PENETRATIONS

- A. Make at right angles, unless otherwise shown.
- B. Notching or penetration of structural members, including footings and beams, not permitted.
- C. Fire-Rated Walls, Floors, or Ceilings: Fire-stop openings around penetrations to maintain fire-resistance rating.
- D. Apply single layer of wraparound duct band to all metallic conduit in contact with concrete slabs to a point 2 inches above concrete surface.
- E. Concrete Walls, Floors, or Ceilings (Aboveground): Provide nonshrink grout dry-pack, or use watertight seal device.
- F. Entering Structures:

1. General: Seal raceway at the first box or outlet with minimum 2 inches thick expandable plastic compound to prevent the entrance of gases or liquids from one area to another.
2. Concrete Roof or Membrane Waterproofed Wall or Floor:
 - a. Provide a watertight seal.
 - b. Without Concrete Encasement: Install watertight entrance seal device on each side.
 - c. With Concrete Encasement: Install watertight entrance seal device on the accessible side.
 - d. Securely anchor malleable iron body of watertight entrance seal device into construction with one or more integral flanges.
 - e. Secure membrane waterproofing to watertight entrance seal device in a permanent, watertight manner.
3. Existing or Precast Wall (Underground): Core drill wall and install a watertight entrance seal device.

3.5 SUPPORT

- A. Support from structural members only, at intervals not exceeding NFPA 70 requirements, and in any case not exceeding 10 feet. Do not support from piping, pipe supports, or other raceways.
- B. Multiple Adjacent Raceways: Provide ceiling trapeze. For trapeze-supported conduit, allow 40 percent extra space for future conduit.
- C. Provide and attach wall brackets, strap hangers, or ceiling trapeze as follows:
 1. Wood: Wood screws.
 2. Hollow Masonry Units: Toggle bolts.
 3. Concrete or Brick: Expansion shields, or threaded studs driven in by powder charge, with lock washers and nuts.
 4. Steelwork: Machine screws.
- D. Nails or wooden plugs inserted in concrete or masonry for attaching raceway not permitted. Do not weld raceways or pipe straps to steel structures. Do not use wire in lieu of straps or hangers.

3.6 BENDS

- A. Install concealed raceways with a minimum of bends in the shortest practical distance.
- B. Make bends and offsets of longest practical radius.
- C. Install with symmetrical bends or cast metal fittings.
- D. Avoid field-made bends and offsets, but where necessary, make with acceptable hickey or bending machine. Do not heat metal raceways to facilitate bending.
- E. Make bends in parallel or banked runs from same center or centerline with same radius so that bends are parallel.
- F. Factory elbows may be installed in parallel or banked raceways if there is change in plane of run, and raceways are same size.
- G. PVC Conduit:
 1. Bends 30-Degree and Larger: Provide factory-made elbows.
 2. 90-Degree Bends: Provide rigid aluminum elbows.
 3. Use manufacturer's recommended method for forming smaller bends.

- H. Flexible Conduit: Do not make bends that exceed allowable conductor bending radius of cable to be installed or that significantly restricts conduit flexibility.

3.7 EXPANSION/DEFLECTION FITTINGS

- A. Provide on all raceways at all structural expansion joints, and in long tangential runs.
- B. Provide expansion/deflection joints for 50 degrees F maximum temperature variation.
- C. Install in accordance with manufacturer's instructions.

3.8 PVC CONDUIT

- A. Solvent Welding:
 - 1. Provide manufacturer recommended solvent; apply to all joints.
 - 2. Install such that joint is watertight.
- B. Adapters:
 - 1. PVC to Metallic Fittings: PVC terminal type.
 - 2. PVC to Rigid Metal Conduit or IMC: PVC female adapter.
- C. Belied-End Conduit: Bevel the unbelled end of the joint prior to joining.

3.9 WIREWAYS

- A. Install in accordance with manufacturer's instructions.
- B. Locate with cover on accessible vertical face of wireway, unless otherwise shown.

3.10 TERMINATION AT ENCLOSURES

- A. Cast Metal Enclosure: Provide manufacturer's premolded insulating sleeve inside metallic conduit terminating in threaded hubs.
- B. Sheet Metal Boxes, Cabinets, and Enclosures:
 - 1. Rigid Galvanized and Aluminum Conduit:
 - a. Provide one lock nut each on inside and outside of enclosure.
 - b. Install grounding bushing.
 - c. Provide bonding jumper from grounding bushing to equipment ground bus or ground pad; if neither ground bus nor pad exists, connect jumper to lag bolt attached to metal enclosure.
 - d. Install insulated bushing on ends of conduit where grounding is not required.
 - e. Provide insulated throat when conduit terminates in sheet metal boxes having threaded hubs.
 - 2. Flexible Metal Conduit: Provide two screw type, insulated, malleable iron connectors.
 - 3. Flexible, Nonmetallic Conduit: Provide nonmetallic, liquid-tight strain relief connectors.
 - 4. PVC Schedule 80 Conduit: Provide PVC terminal adapter with lock nut.

3.11 UNDERGROUND RACEWAYS

- A. Grade: Maintain minimum grade of 4 inches in 100 feet, either from one manhole, handhole, or pull box to the next, or from a high point between them, depending on surface contour.
- B. Cover: Maintain minimum 2-foot cover above conduit and concrete encasement, unless otherwise shown.
- C. Make routing changes as necessary to avoid obstructions or conflicts.
- D. Couplings: In multiple conduit runs, stagger so that couplings in adjacent runs are not in same transverse line.

- E. Union type fittings not permitted.
- F. Spacers:
 - 1. Provide preformed, nonmetallic spacers, designed for such purpose, to secure and separate parallel conduit runs in a trench or concrete encasement.
 - 2. Install at intervals not greater than that specified in NFPA 70 for support of the type conduit used, but in no case greater than 10 feet.
- G. Support conduit so as to prevent bending or displacement during backfilling or concrete placement.
- H. Installation with Other Piping Systems:
 - 1. Crossings: Maintain minimum 12-inch vertical separation.
 - 2. Parallel Runs: Maintain minimum 12-inch separation.
 - 3. Installation over valves or couplings not permitted.
- I. Metallic Raceway Coating: At couplings and joints and along entire length, apply wraparound duct band with one-half tape width overlap to obtain two complete layers.
- J. Backfill:
 - 1. Conduit trenches shall be backfilled with select backfill obtained from the excavation. Such material shall be placed in 6-inch layers, each compacted to 95 percent of the maximum density. Only hand operated mechanical compacting equipment shall be used within six inches of the installed conduit.
 - 2. Compaction of backfill shall be 95 percent of the maximum density.
 - 3. Do not backfill until inspected by Village.

3.12 IDENTIFICATION DEVICES

- A. Raceway Tags:
 - 1. Identify origin and destination.
 - 2. Install at each terminus, near midpoint, and at minimum intervals of every 50 feet of exposed Raceway, whether in ceiling space or surface mounted.
 - 3. Provide nylon strap for attachment.
- B. Electric Detectable Warning Tape: Install approximately 12 inches above underground or concrete-encased raceways. Align parallel to, and within 12 inches of, centerline of runs.
- C. Buried Raceway Markers:
 - 1. Install at grade to indicate direction of underground raceways.
 - 2. Install at all bends and at intervals not exceeding 100 feet in straight runs.

3.13 PROTECTION OF INSTALLED WORK

- A. Protect products from effects of moisture, corrosion, and physical damage during construction.
- B. Provide and maintain manufactured watertight and dust-tight seals over all conduit openings during construction.
- C. Touch up painted conduit threads after assembly to cover nicks or scars.
- D. Touch up damage to coating on PVC-coated conduit with patching compound approved by manufacturer.

- END OF SECTION -

SECTION 16120

CONDUCTORS

PART 1 - GENERAL

1.1 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
1. American National Standards Institute (ANSI): 386, Standard for Separable Insulated Connector Systems for Power Distribution Systems Above 600V.
 2. American Society for Testing and Materials (ASTM):
 - a. A167, Standard Specification for Stainless and Heat Resisting Chromium-Nickel-Plated Steel Plate, Sheet, and Strip.
 - b. B3, Standard Specification for Soft or Annealed Copper Wire.
 - c. B8, Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft.
 - d. B263, Standard Test Method for Determination of Cross-Sectional Area of Stranded Conductors.
 3. Association of Edison Illuminating Companies (AEIC):
 - a. CS 5, Crosslinked Polyethylene Insulated Shielded Power Cables Rated 5 through 35 kV.
 - b. CS 6, Ethylene- Propylene-Rubber-Insulated Shielded Power Cables Rated 5 through 69 kV.
 4. Insulated Cable Engineer's Association, Inc. (ICEA): T-29-250, Procedure for Conducting Vertical Cable Tray Flame Test with a Theoretical Heat Input of 210,000 Btu/hour.
 5. Institute of Electrical and Electronics Engineers, Inc. (IEEE):
 - a. 48, Standard Test Procedures and Requirements or High-Voltage Alternating Current Cable Terminations.
 - b. 404, Standard for Cable Joints for Use with Extruded Dielectric Cable Rated 5,000V through 46,000V and Cable Joints for Use with Laminated Dielectric Cable Rated 2,500V through 500,000V.
 6. National Electrical Contractors Association, Inc. (NECA): 5055, Standard of Installation.
 7. National Electrical Manufacturers' Association (NEMA):
 - a. CC 1, Electric Power Connectors for Substations.
 - b. WC 3, Rubber-insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.
 - c. WC 5, Thermoplastic Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.
 - d. WC 7, Crosslinked-Thermosetting-Polyethylene-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.
 - e. WC 8, Ethylene-Propylene-Rubber-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.
 - f. WC 55, Instrumentation Cables and Thermocouple Wire.
 8. National Fire Protection Association (NFPA): 70, National Electrical Code (NEC).
 9. Underwriters Laboratories, Inc. (UL):

- a. 13, Standard for Safety Power-Limited Circuit Cables.
- b. 44, Standard for Safety Rubber-Insulated Wires and Cables.
- c. 62, Standard for Safety Flexible Cord and Fixture Wire.
- d. 486A, Standard for Safety Wire Connector and Soldering Lugs for Use with Copper Conductors.
- e. 486B, Standard for Safety Wire Connectors and Soldering Lugs for Use with Aluminum Conductors.
- f. 510, Standard for Safety Insulating Tape.
- g. 854, Standard for Safety Service-Entrance Cables.
- h. 910, Standard for Safety Test Method for Fire and Smoke Characteristics of Electrical and Optical-Fiber Cables Used in Air Handling Spaces.
- i. 1072, Standard for Safety Medium-Voltage Power Cables.
- j. 1277, Standard for Safety Electrical Power and Control Tray Cables with Optional Optical-Fiber Members.
- k. 1581, Standard for Safety Reference Standard for Electrical Wires, Cables, and Flexible Cords.

1.2 SUBMITTALS

- A. Shop Drawings:
 - 1. Wire and cable descriptive product information.
 - 2. Wire and cable accessories descriptive product information.
 - 3. Cable fault detection system descriptive product information.
- B. Quality Control Submittals:
 - 1. Certified Factory Test Report for conductors 600 volts and below.
 - 2. Certified Factory Test Report per AEIC CS6, including AEIC qualification report for conductors above 600 volts.

1.3 UL COMPLIANCE

- A. Materials manufactured within scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL listing mark.

PART 2 - PRODUCTS

2.1 CONDUCTORS 600 VOLTS AND BELOW

- A. Conform to applicable requirements of NEMA WC 3, WC 5, and WC 7.
- B. Conductor Type:
 - 1. 120 and 277-Volt Lighting, No. 10 AWG and Smaller: Stranded copper.
 - 2. 120-Volt Receptacle Circuits, No. 10 AWG and Smaller: Stranded copper.
 - 3. All Other Circuits: Stranded copper.
- C. Insulation: Type THHN/THWN, except for sizes No. 6 and larger, with XHHW insulation. XHHW type insulation shall be used for 480V power conductors in conduits installed below grade.
- D. Direct Burial and Aerial Conductors and Cables:
 - 1. Type USE/RHH/RHW insulation, UL IC54 listed, Type RHW-2/USE-2.
 - 2. Conform to physical and minimum thickness requirements of NEMA WC 3.
- E. Flexible Cords and Cables:

1. Type SOW-A50 with ethylene propylene rubber insulation in accordance with UL 62.
 2. Conform to physical and minimum thickness requirements of NEMA WC 8.
- F. Cable Tray Conductors and Cables: Type TC.

2.2 600-VOLT RATED CABLE

- A. General:
1. Type: TC, meeting the requirements of UL 1277 including Vertical Tray Flame Test at 20,000 Btu/hr, and NFPA 70, Article 340, or UL 13 Listed Power Limited Circuit Cable meeting requirements of NFPA 70, Article 725.
 2. Permanently and legibly marked with manufacturer's name, maximum working voltage for which cable was tested, type of cable, and UL listing mark.
 3. Suitable for installation in open air, in cable trays, or conduit.
 4. Minimum Temperature Rating: 90 degrees C dry locations, 75 degrees C wet locations.
 5. Overall Outer Jacket: PVC, flame-retardant, sunlight- and oil-resistant.
- B. Wire and Connectors
1. Cable shall be rated for 600 volts and shall meet the requirements below:
 2. Conductors shall be stranded
 3. All wire shall be brought to the job in unbroken packages and shall bear the data of manufacturing; not older than 12 months.
 4. Type of wire shall be XHHW or THWN, rated 75 degrees C suitable for wet locations except where required otherwise by the drawings.
 5. No wire smaller than No. 12 gauge shall be used unless specifically indicated.
 6. Conductor metal shall be copper.
 7. All conductors shall be megger tested after installation and insulation must comply with the Insulated Power Cable Engineers Association Minimum Values of Insulation Resistance.
- C. No. 16 AWG, Twisted, Shielded Pair, Instrumentation Cable: Single pair, tinned copper designed for noise rejection for process control, computer, or data log applications meeting NEMA WC 55 requirements.
1. Outer Jacket: 45-mil nominal thickness.
 2. Individual Pair Shield: 1.35-mil, double-faced aluminum/synthetic polymer overlapped to provide 100 percent coverage.
 3. Dimension: 0.31-inch nominal OD.
 4. Conductors:
 - a. Bare soft annealed copper, Class B, seven-strand concentric, meeting requirements of ASTM B8
 - b. 20 AWG, seven-strand tinned copper drain wire.
 - c. Insulation: 15-mil nominal PVC.
 - d. Jacket: 4-mil nominal nylon.
 - e. Color Code: Pair conductors' black and red.
 5. Manufacturers:
 - a. Okonite Co.
 - b. Alpha Wire Corp.
 6. The following test shall be performed on instrumentation and control system cables. All tests shall be end-to-end test of installed cables with the ends supported in free air, not

adjacent to any ground object. All test data shall be recorded on forms acceptable to the Village. Complete records of all tests shall be made and delivered to the Village.

- a. Continuity tests shall be performed by measuring wire/shield loop resistances of signal cable as the wires, taken one at a time, are shorted to the channel shield. No loop resistance measurement shall carry by more than +2 ohms from the calculated average loop resistance value.
- b. Insulation resistance tests shall be performed by using a 500 volt megohmmeter to measure the insulation resistance between each channel wire and channel shield, between individual channel shields in a multi-channel cable, between each individual channel and the overall cable shield in multi-channel cable, between each wire and ground, and between each shield and ground. Values of resistance less than 10 megohms shall be unacceptable.

2.3 GROUNDING CONDUCTORS

- A. Equipment: Stranded copper with green, Type USE/RHH/RHW-XLPE or THHN/THWN, insulation.
- B. Direct Buried: Bare tinned stranded copper.

2.4 ACCESSORIES FOR CONDUCTORS 600 VOLTS AND BELOW

- A. Tape:
 1. General Purpose, Flame-Retardant: 7-mil, vinyl plastic, Scotch Brand 33, rated for 90 degrees C minimum, meeting requirements of UL 510.
 2. Flame Retardant, Cold and Weather Resistant: 8.5-mil, vinyl plastic, Scotch Brand 88.
 3. Arc and Fireproofing:
 - a. 30-mil, elastomer
 - b. Manufacturers and Products:
 - 1) Scotch; Brand 77, with Scotch Brand 69 glass cloth tape binder.
 - 2) Plymount; Plyarc 30, with Plymount Plyglas glass cloth tape binder.
 4. Identification Devices:
 - a. Sleeve: Permanent, PVC, yellow or white, with legible machine-printed black markings.
 - b. Marker Plate: Nylon, with legible designations permanently hot stamped on plate.
 - c. Grounding Conductor: Permanent green heat-shrink sleeve, 2-inch minimum.
 5. Connectors and Terminations:
 - a. Nylon, Self-Insulated Crimp Connectors:
 - 1) Manufacturers and Products:
 - a) Thomas & Betts; Sta-Kon.
 - b) Burndy; Insulink.
 - c) ILSCO.
 - b. Nylon, Self-Insulated, Crimp Locking-Fork, Torque-Type Terminator:
 - 1) Manufacturers and Products:
 - a) Thomas & Betts; Sta-Kon.
 - b) Burndy; Insulink.
 - c) ILSCO.
 - B. Cable Lugs:
 1. In accordance with NEMA CC I.
 2. Rated 600 volts of same material as conductor metal.

- 3. Insulated, Locking-Fork, Compression Lugs:
 - a. Manufacturers and Products:
 - 1) Thomas & Betts; Sta-Kon.
 - 2) ILSCO; ILSCONS.
- 4. Un-insulated Crimp Connectors and Terminators:
 - a. Manufacturers and Products:
 - 1) Square D; Versitide.
 - 2) Thomas & Betts; Color-Keyed.
 - 3) ILSCO.
- 5. Un-insulated, Bolted, Two-Way Connectors and Terminators:
 - a. Manufacturers and Products:
 - 1) Thomas & Betts; Locktite.
 - 2) Burndy; Quiklug.
 - 3) ILSCO.
- C. Cable Ties: Nylon, adjustable, self-locking, and reusable.
 - 1. Manufacturer and Product: Thomas & Betts; TY-RAP.
- D. Heat Shrinkable Insulation: Thermally stabilized, crosslinked polyofin.
 - 1. Manufacturer and Product: Thomas & Betts; SHRINK-KON.

2.5 PULLING COMPOUND

- A. Nontoxic, non-corrosive, noncombustible, nonflammable, wax-based lubricant; UL listed.
- B. Suitable for rubber, neoprene, PVC, polyethylene, hypalon, CPE, and lead-covered wire and cable.
- C. Suitable for zinc-coated steel, aluminum, PVC, bituminized fiber, and fiberglass raceways.
- D. Manufacturers and Products:
 - 1. Ideal Co.; Yellow 77.
 - 2. Polywater, Inc.
 - 3. Cable Grip Co.

2.6 SOURCE QUALITY CONTROL

- A. Conductors 600-Volts and below: Test in accordance with UL 44 and 854 Standards.

PART 3 - EXECUTION

3.1 GENERAL

- A. Conductor installation to be in accordance with NECA 5055.
- B. Conductor and cable sizing shown is based on copper conductors, unless noted otherwise.
- C. Do not exceed cable manufacturer's recommendations for maximum pulling tensions and minimum bending radii.
- D. Tighten screws and terminal bolts in accordance with UL 486A for copper conductors.
- E. Cable Lugs: Provide with correct number of holes, bolt size, and center-to-center spacing as required by equipment terminals.
- F. Bundling: Where single conductors and cables in manholes, handholes, vaults, and other indicated locations are not wrapped together by some other means, bundle conductors from

each conduit throughout their exposed length with cable ties placed at intervals not exceeding 18 inches on center.

- G. Ream, remove burrs, and clear interior of installed conduit before pulling wires or cables.
- H. Concrete-Encased Raceway Installation: Before installation of conductors, pull through each raceway a mandrel approximately 1/4-inch smaller than raceway inside diameter.

3.2 POWER CONDUCTOR COLOR CODING

- A. Conductors 600 Volts and Below:
 - 1. No. 6 AWG and Larger. Apply general purpose, flame retardant tape at each end, and at accessible locations wrapped at least six full overlapping turns, covering an area 1-1/2 to 2 inches wide.
 - 2. No. 8 AWG and Smaller: Provide colored conductors.
 - 3. Colors:

System	Conductor	Color
All Systems	Equipment Grounding	Green
240/120 Volts Single-Phase, Three-Wire	Grounded Neutral One Hot Leg Other Hot Leg	White Black Red
208Y/120 Volts Three-Phase, Four-Wire	Grounded Neutral Phase A Phase B Phase C	White Black Red Blue
240/120 Volts Three-Phase, Four-Wire Delta, Center Tap Ground on Single-Phase	Grounded Neutral Phase A High (wild) Leg Phase C	White Black Orange Blue
480Y/277 Volts Three-Phase, Four-Wire	Grounded Neutral Phase A Phase B Phase C	Gray Brown Purple Yellow

NOTE: Phase A, B, C implies direction of positive phase rotation

4. Tracer: Outer covering of white with an identifiable colored strip other than green in accordance with NFPA 70.

3.3 CIRCUIT IDENTIFICATION

- A. Identify power, instrumentation, and control conductor circuits, using circuit schedule designations, at each termination and in accessible locations such as manholes, handholes, panels, switchboards, motor control centers, pull boxes, and terminal boxes.
- B. Method:
 1. Conductors No. 3 AWG and Smaller: Identify with sleeves.
 2. Cables, and Conductors No. 2 AWG and Larger:
 - a. Identify with marker plates.
 - b. Attach marker plates with nylon tie cord.
 3. Taped-on markers or tags relying on adhesives not permitted.

3.4 CONDUCTORS 600 VOLTS AND BELOW

- A. Install 10 AWG or 12 AWG conductors for branch circuit power wiring in lighting and receptacle circuits.
- B. Do not splice incoming service conductors and branch power distribution conductors No. 6 AWG and larger unless specifically indicated or approved by Village.
- C. Connections and Terminations:
 1. Install butt splices only on stranded conductors.
 2. Install nylon self-insulated crimp connectors and terminators for instrumentation, control, and power circuit conductors No. 6 AWG and smaller.
 3. Install uninsulated crimp connectors and terminators for instrumentation, control, and power circuit conductors No. 4 AWG through No. 2/0 AWG.
 4. Install uninsulated, bolted, two-way connectors and terminators for power circuit conductors No. 4/0 AWG and larger.
 5. Install uninsulated bolted, two-way connectors for motor circuit conductors No. 12 and larger.
 6. Tape-insulate all uninsulated connections.
 7. Place no more than one conductor in any single-barrel pressure connection.
 8. Install crimp connectors with tools approved by connector manufacturer.
 9. Install terminals and connectors acceptable for type of material used.
 10. Compression Lugs
 - a. Attach with a tool specifically designed for purpose.
 - b. Tool shall provide complete controlled crimp and shall not release until crimp is complete.
 - c. Do not use plier type crimpers.
- D. Do not use soldered mechanical joints.
- E. Splices and Terminations:
 1. Indoors: Use general purpose, flame retardant tape.
 2. Outdoors: Use flame retardant, cold- and weather-resistant tape.
- F. Terminate all spare wires on terminal block in all cabinets and boxes.

- G. Cabinets, Panels, and Motor Control Centers:
 - 1. Terminate all spare wires on terminal blocks.
 - 2. Where conductors pass through openings or over edges in sheet metal, remove bums, chamfer edges, and install bushings and protective strips of insulating material to protect the conductors.
- H. Extra Conductor Length: For conductors to be connected by others, install minimum 6 feet of extra conductor in freestanding panels and minimum 2 feet in other assemblies.

- END OF SECTION -

SECTION 16450

GROUNDING

PART 1 - GENERAL

1.1 REFERENCES

- A. The following is a list of standards which h may be referenced in this section:
 - 1. American National Standards Institute (ANSI): C2, National Electrical Safety Code (NESC).
 - 2. National Fire Protection Association (NFPA): 70, National Electrical Code (NEC).

1.2 SUBMITTALS

- A. Shop Drawings:
 - 1. Product Data:
 - a. Exothermic weld connectors.
 - b. Mechanical connectors.

1.3 UL COMPLIANCE

- A. Materials manufactured within scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL listing mark.

PART 2 - PRODUCTS

2.1 GROUND ROD

- A. Material: Copper clad.
- B. Diameter: 3/4 inch.
- C. Length: 20 feet.

2.2 GROUND CONDUCTORS

- A. As specified in Section 16120, CONDUCTORS.

2.3 CONNECTORS

- A. Exothermic Weld Type:
 - 1. Outdoor Weld: Suitable for exposure to elements or direct burial.
 - 2. Indoor Weld: Utilize low-smoke, low-emission process.
 - 3. Manufacturers:
 - a. Erico Products, Inc.; Cadweld and Cadweld Exolon.
 - b. Thermoweld.
- B. Mechanical Type: Split-bolt, saddle, or cone screw type; copper alloy material.
 - 1. Manufacturers:
 - a. Burndy Corp.
 - b. Thomas and Betts Co.

PART 3 - EXECUTION

3.1 GENERAL

- A. Grounding shall be in compliance with NFPA 70 and ANSI C2.
- B. Ground electrical service neutral at service entrance equipment to supplementary grounding electrodes.
- C. Ground each separately derived system neutral to nearest effectively grounded building structural steel member or separate grounding electrode.
- D. Bond together system neutrals, service equipment enclosures, exposed non-current-carrying metal parts of electrical equipment, metal raceways, ground conductor in raceways and cables, receptacle ground connections, and metal piping systems.
- E. Shielded Power Cables: Ground shields at each splice or termination in accordance with recommendations of splice or termination manufacturer.
- F. Shielded Control Cables:
 - 1. Ground shield to ground bus at power supply for analog signal.
 - 2. Expose shield minimum 1 inch at termination to field instrument and apply heat shrink tube.
 - 3. Do not ground control cable shield at more than one point.

3.2 WIRE CONNECTIONS

- A. Ground Conductors: Install in conduit containing power conductors and control circuits above 50 volts.
- B. Nonmetallic Raceways and Flexible Tubing: Install an equipment grounding conductor connected at both ends to non current-carrying grounding bus.
- C. Connect ground conductors to raceway grounding bushings.
- D. Extend and connect ground conductors to ground bus in all equipment containing a ground bus.
- E. Connect enclosure of equipment containing ground bus to that bus.
- F. Bolt connections to equipment ground bus.
- G. Bond grounding conductors to metallic enclosures at each end, and to intermediate metallic enclosures.
- H. Junction Boxes: Furnish materials and connect to equipment grounding system with grounding clips mounted directly on box, or with 3/8-inch machine screws.

3.3 CONNECTIONS

- A. General:
 - 1. Above grade Connections: Use either exothermic weld or mechanical-type connectors.
 - 2. Below grade Connections: Install exothermic weld type connectors.
 - 3. Remove paint, dirt, or other surface coverings at connection points to allow good metal-to-metal contact.
 - 4. Notify Village prior to backfilling ground connections.
- B. Exothermic Weld Type:
 - 1. Wire brush or file contact point to bare metal surface.
 - 2. Use welding cartridges and molds in accordance with manufacturer's recommendations.
 - 3. Avoid using badly worn molds.
 - 4. Mold to be completely filled with metal when making welds.

5. After completed welds have cooled, brush slag from weld area and thoroughly clean joint.
- C. Mechanical Type:
 1. Apply homogeneous blend of colloidal copper and rust and corrosion inhibitor before making connection.
 2. Install in accordance with connector manufacturer's recommendations.
 3. Do not conceal mechanical connections.

3.4 MANHOLE AND HANDHOLE GROUNDING

- A. Make connections of grounding conductors fully visible and accessible.
- B. Connect all non current-carrying metal parts, and any metallic raceway grounding bushings to ground rod with No. 6 AWG copper conductor.

3.5 SURGE PROTECTION EQUIPMENT GROUNDING

- A. Connect surge arrestor ground terminals to equipment ground bus.

3.6 INSTRUMENT GROUND - SURGE SUPPRESSION

- A. Connect all instrument surge protection with #6 insulated copper ground wire (in conduit where above grade) to closest plant ground system

3.7 BONDING

- A. Bond to Main Conductor System:
 1. All roof mounted ventilators, fans, air handlers, masts, flues, cooling towers, handrails, and other sizeable metal objects.
 2. Roof flashing, gravel stops, insulation vents, ridge vents, roof drains, soil pipe vents, and other small metal objects if located within 6 feet of main conductors or another grounded object.
 3. Provide air terminals as required.
- B. Bond steel columns or major framing members to grounding system per National Electrical Code.
- C. Bond each main down conductor to grounding system.

3.8 GROUNDING SYSTEM

- A. Grounding counterpoise at the Fluoride Building is existing.
- B. Connections:
 1. Install ground cables continuous between connections.
 2. Exothermic welded connections to ground rods, cable trays, structural steel, handrails, and buried and non-accessible connections.
 3. Provide bolted clamp type mechanical connectors for all exposed secondary connections.
 4. Use bolted offset parapet bases or through-roof concealed base assemblies for air terminal connections.
 5. Provide interconnections with electrical and telephone systems and all underground water and metal pipes.
 6. Provide electric service arrestor ground wire to building water main.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES.

SECTION 16900

CONTROL PANELS

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. The Contractor shall furnish, install and place into service operating process instrumentation, control systems and panel including accessories, related to the control panels as shown on plans and specified herein for the proposed automatic chlorine disinfection system, Ammonia Feed system, Ammonia Leak detection system, and related equipment.
- B. This Section applies to the chlorine disinfection system control panel, field instruments and related chemical feed pump equipment as indicated on the drawings.
- C. Identify existing discrete and analog signals being reused, also identify spare discrete and analog I/O spares at the g PLC Control Panels to terminate proposed signals as indicated on drawings, this applies to the Main plant and also the existing PLC at the RL Pratt (The existing PLC panels at the Pratt plant will be upgraded with new PLC as part of a SCADA upgrade and separate project that will be ongoing at about the same time as the ammonia feed project). Programming of new I/O to existing PLC system – see other specification section. The Upgrade of the existing PLC and SCADA at the RL Pratt plant shall be carried out by Revere Controls.
- D. Provide and install new sample Pump and related Controls at the Main WTP as indicated on the drawings.
- E. Provide field instruments. Base on the drawings, provide new Brooks mass flow Meter/controller – version with option for with analog terminals, 120V solenoid valve, LED display unit to display the level or flow of ammonia being fed, and miscellaneous relays, SPD devices for power and signal, HOR selector switch, and the like as indicated on the drawings.zProvide new Leak Detection system at each plant, provide power and signal wires as indicated and required, at the Main plant and the RL Pratt plant provide 120V and 24V as required per instrument and as indicated.
- F. Provide documentation, and training on using the ammonia system over SCADA and also manually, including maintenance and troubleshooting.
- G. Provide calibration, setup, and startup of equipment.
- H. Coordinate with the Owner and Engineer and provide schedule at least two weeks in advance for any requested shut downs, testing and startup phase, and later training. All written requests shall be approved by the Owner and Engineer before proceeding.

1.2 SINGLE INSTRUMENT SUPPLIER

- A. The Contractor shall assign to the plant-wide Single Instrument and Control (panel) supplier full responsibility for the functional operation of all new instrumentation systems. The Contractor shall have said supplier perform all engineering necessary to select, to furnish, to supervise installation, connection, to calibrate, to place into operation all sensors, instruments, alarm equipment, control panels, accessories and all other equipment as specified herein.

- B. The Single Instrument and control panel supplier shall be responsible for the configuration and provide programming as required for the new systems indicated. All programming and configuration shall be provided by Revere Controls to program the field instruments and all the control systems provided including the programming of the existing PLC control panels at the Main plant and the upgrade PLC control panels at the RL Pratt plant. The Owner's programmer shall program the existing SCADA system at the main plant and the proposed upgrade SCADA system at the RL Pratt plant. It is the responsibility of the single instrument supplier to coordinate and provide I/O database to the Owner's SCADA programmer. Refer to PLC and SCADA programming specification for more information.
- C. The foregoing shall enable the Contractor and the Owner to be assured that the full responsibility for the requirements of this section will reside in an organization which is qualified and experienced in the water treatment field and its process technology on a functional system basis.
- D. The panel supplier shall be a UL listed manufacturer. Acceptable named manufacturers shall be limited to the following:
 - 1. Revere Controls
- E. Contractor shall review all specifications and drawings. Contractor shall be sure all control panels are included in the bid.

1.3 INSTALLATION WORK

- A. Nothing in this part of the specifications shall be construed as requiring the Contractor to utilize personnel supplied by his assigned instrument manufacturer's organization or any division thereof, to accomplish the physical installation of any elements, instruments, accessories or assemblies specified herein. However, the Contractor shall employ installers who are skilled and experienced in the installation and connection of all elements, instruments, accessories and assemblies; portions of their work shall be supervised or checked as specified herein.

1.4 PREPARATION OF SUBMITTAL OF DRAWINGS AND DATA

- A. It is incumbent upon the Contractor to coordinate the work specified in these Sections so that a complete instrumentation and control will be provided and will be supported by accurate shop and record drawings. As part of the responsibility as assigned by the Contractor, the Single supplier shall prepare and submit through the Contractor, complete and organized shop drawings, as specified herein. Interface between instruments, motor starters, flow meters, and existing instruments shall be included in his shop drawing submittal.
- B. In order to provide a fully coordinated system, shop drawings by other equipment vendors associated with the control panel systems shall be reviewed and approved by the Contractor before submittal to the Engineer for approval.
- C. During the period of preparation of this submittal, the Contractor shall authorize direct informal liaison between his single Supplier and the Engineer for exchange of technical information. As a result of this liaison certain minor refinements and revisions in the systems as specified may be authorized informally by the Engineer, but these shall not alter the scope of the work or cause increase or decrease in the contract price. During this informal exchange no oral statement by the Engineer shall be construed to give formal approval of any component or method, nor shall any statement be construed to grant formal exception to, or variation from these specifications.

D. Operation and Maintenance Manual

1. Submit one preliminary O&M for review and comment by the Engineer. Provide five final O&M.s, bound in a three ring binder. O&M shall include the requirements of materials and minimally include the following: approved submittal data, start-up corrected as built shop drawings. O&M shall be neatly and logically arranged with a contents page followed by tabbed sections.

1.5 ADDITIONAL TECHNICAL SERVICES

- A. At no additional cost to the Owner, the Contractor shall provide the services of qualified technical representatives of the Single supplier:
1. To supervise installation and connection of all instruments, elements and components of every system, including connection of instrument signals to primary measurement elements and to final control elements such as pumps;
 2. To make all necessary adjustments, calibrations and tests;
 3. To instruct plant operating and maintenance personnel on instrumentation. This time shall be in addition to whatever time is required for other facets of work at the site and shall be during the Owner's normal working days and hours.

1.6 GUARANTEE

- A. The Contractor shall guarantee all equipment and installation, as specified herein, for a period of 1 year following the date of completion of the work. To fulfill this obligation, the Contractor shall utilize technical service personnel designated by the Single supplier to which the Contractor originally assigned project responsibility for instrumentation.

1.7 ADDITIONAL PROVISIONS

- A. The applicable provisions of the following sections under Electrical Work shall apply the work and equipment specified herein, the same as if stated in full herein:
1. Codes and Standards
 2. Equipment Materials and Workmanship
 3. Testing
 4. Grounding
 5. Equipment Anchoring
 6. Conductor and Equipment Identification
 7. Terminal Cabinets and Control Compartments
 8. Process Control Devices

1.8 NEWEST MODEL COMPONENTS

1. All meters, instruments and other components shall be the most recent field proven models marketed by their manufacturers at the time of the submittal of shop drawings unless otherwise specified to match existing equipment. All technical data publications included with the submittal shall be the most recent issue.

1.9 COORDINATION

- A. Provide all coordination.

1.10 TEST PROCEDURE DEVELOPMENT AND DOCUMENTATION

- A. Panel subcontractor shall prepare and submit to the Engineer for review a detailed description of the test procedures that he proposed to perform to demonstrate conformance of the complete system of instrumentation and controls to this Specification.
- B. It is recommended that the panel subcontractor develop the test procedures in two steps by first submitting general descriptions and outlines of the tests and then, upon receipt of approval, submit the required detailed procedures and forms.
- C. Operational Acceptance Tests
- D. Functional Acceptance Tests

PART 2 - PRODUCTS

2.1 INSTRUMENTATION CRITERIA

- A. Designation of Components
 - 1. In these specifications and on the drawings, all systems, meters, instruments and other elements are represented schematically, and are designated by numbers, as derived from criteria in Instrument Society of America Standard ANSI/ISA S5.1-1973. The nomenclature and numbers designated herein and on the drawings shall be employed exclusively throughout shop drawing, data sheets and similar materials. Any other symbols, nomenclature unique to the manufacturer's standard methods shall not replace these prescribed above, used herein and on the Drawings.
- B. Signal Characteristics
 - 1. Signals shall be electrical, as indicated herein, and shall vary in direct linear proportion to the measured variable, except as noted. Electrical signals outside control panels shall be 4-20 MADC, except as noted.
- C. Matching Style, Appearance and Type
 - 1. All instruments to be panel mounted at the control panels shall have matching style and general appearance. Instruments performing similar functions shall be of the same type, model, or class and shall be one (1) manufacturer.
- D. Accuracy and Repeatability
 - 1. The overall accuracy of each instrumentation system or loop shall be as prescribed in the specifications for that system or loop. Each system's accuracy shall be determined as a probable maximum error; this shall be the square root of the sum of the squares of the certified "accuracies" of certain designated components in each system, expressed as a percentage of the actual span or value of the measured variable. Each individual electronic instrument shall have a minimum accuracy of +0.7 percent of full scale and a minimum repeatability of +0.4 percent of full scale unless otherwise specified. Instruments which do not conform or improve upon these criteria are not acceptable.
- E. Signal Isolators, Converters and Power Supplies
 - 1. Signal isolators shall be furnished and installed in each measurement and control loop, wherever required, to assure adjacent component impedance match or where feedback

- paths may be generated. Signal converters shall be included where required to resolve any signal level incompatibilities. Signal power supplies shall be included, as required by the manufacturer's instrument load characteristics, to insure sufficient power to each loop component.
- F. Alternative Equipment or Methods
1. Equipment or methods requiring redesign of any project details are not acceptable without prior written approval of the Engineer. Any changes inherent to a proposal alternative shall be at no additional cost to the Owner. The required approval shall be obtained in writing by the subcontractor through the Contractor prior to submittal of shop drawings and data. Any proposal for approval of alternative equipment or method specified, shall include evidence of improved performance, operational advantage and maintenance enhancement over the equipment or method specified, or shall include evidences that a specified component is not available. Otherwise, alternative equipment (other than direct, equivalent substitutions) and alternative methods shall not be proposed.
- G. Special Equipment
1. The Supplier shall provide all necessary equipment to properly interface his system with equipment provided by others. Such equipment shall include but not be limited to special sensing relays for seal failures and the like.

2.2 DETAILED SYSTEMS DRAWINGS AND DATA

- A. Content
- The Contractor shall submit detailed shop drawings and data prepared and organized by the Single supplier designated at the time of bidding. The quantity of submitted sets shall be no less than 6 sets. These drawings and data shall be submitted as a complete bound package at one time within 30 calendar days after date of notice to proceed. Provide field investigations before submittal preparation.
1. Drawings showing definite diagrams for every instrumentation loop system shall be provided. These diagrams shall show and identify each component of each loop or system using legend and symbols from ISA standard S5.4, each having the format of ISA Standard S5.1 as used on the project drawings.
 2. Provide additional information per Owner/Engineer.
 3. Data sheets for each component, together with a technical product brochure or bulletin shall be provided. The data sheets shall show:
 - a. Component function description used herein and on the drawings;
 - b. Manufacturer's model number or other product designation;
 - c. Project tag number used herein and on the drawings;
 - d. Project system loop of which the component is a part;
 - e. Project location or assembly at which the component is to be installed;
 - f. Input and output characteristics;
 - g. Scale range, units and multiplier;
 - h. Requirements for electrical supply;
 - i. Requirements for air supply;
 - j. Materials of component parts to be in contact with, or otherwise exposed to process media;
 - k. Special requirements or features.

4. A complete index shall appear in the front of each bound submittal volume. A separate technical brochure or bulleting shall be included with each instrument data sheet. The data sheet shall be indexed in the submittal by systems or loops, as a separate group for each system or loop. If, within a single system or loop, a single instrument is employed more than once, one data sheet with one brochure may cover all identical uses of that instrument in that system. Each brochure shall include a list of tag numbers for which it applies. System groups shall be separated by labeled tags.
 5. Drawings shall show both schematic and wiring diagrams for control circuits. Complete details on the circuit interrelationship of all devices within and outside each control panel shall be submitted. Control devices and pertinent mechanical relationships including mechanical parameters shall be included on these diagrams. These parameters as a minimum shall include instrument ranges, sizes, setpoints and the like. The diagrams shall consist of component layout drawings to scale, showing numbered terminals on components together with the unique number of the wire to be connected to each terminal. Piping and wiring diagrams shall show terminal assignments from all primary measurement devices, such as flow meters, and to all final control devices, such as pumps. The Contractor shall furnish all necessary equipment supplier's shop drawings to facilitate inclusion of this information by the system supplier.
 6. Assembly and construction drawings for each control panel and for other special enclosed control assemblies for field installation shall be provided. These drawings shall include dimensions, identification of all components, surface preparation and finish data, name plates and the like. These drawings also shall define exactly the style and overall appearance of the assembly; a final treatment sample shall be provided when requested.
 7. Installation anchoring and mounting details for all components and assemblies to be field-mounted, including conduit connection or entry details shall be provided.
 8. Complete detailed bill of materials including a master bill of materials listing all field mounted devices, control panels and other equipment that will be shipped to the job site and a bill of materials for each control panel listing all devices within the panel.
- B. Organization and Binding
1. The organization of the original shop drawing submittal shall be compatible to the eventual inclusion with the technical manuals submittal and shall include final alternations reflecting "as built" conditions. Accordingly, the initial multiple copy shop drawing shall be separately bound in 3-ring binders.

2.3 TECHNICAL MANUALS

- A. One preliminary O&M manual shall be submitted to the Engineer for review and comment. Assuming a favorable review the supplier shall incorporate comments and forward the five final copies to the Engineer. If the preliminary O&M is not acceptable, the supplier shall resubmit.
- B. Five (5) final sets of technical manuals shall be supplied for the Owner as a condition for final acceptance of the project. Each set shall consist of one (1) or more volumes, each of which shall be bound in a standard size, 3-ring, loose leaf, vinyl plastic hard cover binder suitable for bookshelf storage. Binder ring size shall not exceed 3 inches.
- C. In addition to updated shop drawing information to reflect actual existing conditions, each set of technical manuals shall include installation, connection, operating, trouble-shooting, maintenance and overhaul instructions in complete detail. This shall provide the Owner with

comprehensive information on all systems and components to enable operation, service, maintenance and repair. Exploded or other detailed views of all instruments, assemblies, and accessory components shall be included together with the complete parts lists and ordering instructions.

- D. Shop drawing files shall be provided in the latest version of Autocad with each O&M manual. Provide electronic files on disk.

2.4 SPARE PARTS

- A. The Contractor shall include, as part of the bid package, a list of recommended spare parts covering items required under these specifications.
- B. Minimum spare parts shall be provided boxed and identified including the following:
 - 1. 2-control relays of each type used.
 - 2. 2-timing relays of each type used.
 - 3. 2-fuses of each size and type used.
 - 4. 2-pilot lights of each size and type use.
 - 5. 2-signal field surge arrester of each type used.
 - 6. 2-signal panel surge arrester of each type used.
 - 7. 2-incoming power lightning arrester of each type used.
 - 8. 2-surge capacitor or TVSS device of each type used.
 - 9. Provide a spare Brooks Mass Flow Meter/Controller of the type Used at each ammonia feed panel with the analog I/O option.
 - 10. Provide a Redhat or equal 120V 2way/
Also provide other spares as noted by the particular sections and paragraphs of other-specifications.

2.5 CONTROL PANELS AND INSTRUMENT PANEL

- A. General
 - 1. Panel supplier shall construct the control panel to properly control internal and external equipment. No attempt is made to specify or indicate on plans, all required equipment but rather to set forth the minimum requirements.
- B. Engineering
 - 1. Panel supplier shall provide system engineering and produce detailed fully engineered, coordinated and completed drawings.
- C. Construction
 - 1. Control panel construction shall be per these specification and plans.
- D. Signal and Control Circuit Wiring
 - 1. Wire Type and Sizes: Conductors shall be flexible stranded copper wire; these shall be UL listed TFFN, THWN, THHN and shall be rated 600v. Wire for control signal circuits shall be #16 AWG unless otherwise noted. All instrumentation cables shall be shielded #18 AWG with a copper drain wire unless otherwise noted. All special instrumentation cable such as between sensor and transmitter shall be supplied by the supplier. Contractor shall increase wire size per load or impedance requirements.
- E. Wiring Instrumentation
 - 1. All wires shall be run in plastic wireways except (1) field wiring, (2) wiring between mating blocks in adjacent sections, (3) wiring run from components on a swing-out panel to

- components on a part of the fixed structure, (4) wiring run to panel mounted components on the door and the like. Wiring run on a swing out panel to other components on a fixed panel shall be made up in nylon wire ties bundles and secured so that bundles are not strained at the terminals.
2. Wiring run to control devices on the front panels shall be tied together at short intervals with nylon ties and secured to the inside face of the panel using adhesive mounts and adhesive strips.
 3. Wiring to rear terminals on panel mounted instruments shall be run in plastic wares secured to horizontal brackets run above or below the instruments in the same plane as the rear of the instruments.
 4. Shields of instrument cable shall only be grounded on one side of each circuit. The side to be grounded shall be nearest the source of excitation.
 5. Care shall be exercised to properly insulate the ungrounded side of the loop to prevent ground loops from occurring.
 6. Conformance to the above wiring installation requirements shall be reflected by details shown on the shop drawings for the Engineer's review.
- F. Wire Marking
1. Each signal, alarm, control, and indicating circuit conductor connected to a given electrical point shall be designated by a single unique number which shall be shown on all shop drawings. These numbers shall be marked on all conductors using white plastic heatshrink sleeves with typewritten characters. Instrument signal conductors shall be tagged with unique multiple digit numbers. Wires from the circuit breaker panelboard shall be tagged indicating the branch circuit breaker number.
- G. Terminal Blocks
1. Compression type terminal blocks shall be molded plastic with barriers and box lug terminals, and shall be rated 15 amps at 600v and mounted securely to DIN rails. White marking strips fastened to the molded sections shall be provided and wire numbers and circuit identifications shall be marked thereon with machine printed marker on top. Terminal blocks shall be IEC style by Entrelec M4/6 or an approved equal.
- H. Wire Color
1. Wire color shall be, Line Power – Black; Neutral or common – White; AC Control – Red; DC Control – Blue; Equipment or Chassis Ground – Green; specified externally powered circuits – Orange.
- I. Identification
1. All components shall be identified using Lamicoid labels or an approved equal.

2.6 CONTROL PANEL EQUIPMENT

- A. General Purpose Relays
1. General purpose relays in the control panel shall be the plug in type with contacts rated 10 amps at 120 vac as a minimum. The quantity and type of contacts shall be as required to accomplish the desired control task. Each relay shall be enclosed in a clear plastic heat and shock resistant dust cover. Relays shall be Potter and Brumfield or an approved equal. Differing mounting sockets shall be used to prohibit improper relay installations. Provide tube type base, 8 PIN or 11 PIN. Blade type relays shall not be used.
- B. Time Delay Relays

1. Time delay relay shall be Diversified with digital settings or an approved equal. Timers shall be time delay on, interval on or time delay off relays, as required and shall be Diversified or an approved equal. Instantaneous contacts or auxiliary slave relays shall be provided as required. Provide tube type base, 8 PIN or 11 PIN. Blade type relays shall not be used.
- C. Signal Isolators
 1. Additional slave or interposing relays and signal isolators and signal converters shall be installed as required.
- D. Circuit Breakers
 1. Circuit breakers shall be single pole, 120vac, 15amp rating or as required to protect wires and equipment; mounted on the inside of the enclosure or equipment remote from the enclosure.
- E. Name Plates
 1. Name plates shall be supplied for identification of control panels and all field mounted elements, including flowmeters and their transmitters. These name plates shall identify the instrument or meter, descriptively as to the function of the system. Nameplates shall be fabricated from black faced, white centered, laminated engraving plastic. A nameplate shall be provided for each signal transducer, signal converter, signal isolator, each electronic trip, and the like, mounted inside the control panels. These shall uniquely identify each control component. Adhesives shall be acceptable for attaching nameplates. Painted surfaces must be prepared to allow permanent bonding of adhesives. Nameplates shall be provided for instruments, function titles for each group of instruments and other components mounted on the front of the control panels as shown. Proposed colors, styles, height and text shall be submitted for approval.
- F. Power Supplies
 1. Power supplies shall be provided as required for loop power or other requirements for special equipment. Loop power supplies shall be Square D or an approved equal.
- G. Circuit Breakers
 1. Square D
 2. Amperage ratings shall be indicated on drawings.
- H. Fuses
 1. Fuses and fuse holders 5x20mm, IEC style, with blown fuse indicating light.
- I. Ground Fault Interrupting Receptacle
 1. Leviton Duplex Receptacle or equal.
 2. AC receptacle box shall be Steel City 58351-1/2 or equal.
 3. Covers shall be Steel City 58-C-5, or equal.
- J. Surge and Lightning Arrestors
 1. All control panels shall be provided with surge and lightning arrestors as specified.
 2. Lightning Surge Suppressor
 - a. Lightning surge suppressors shall be Surge Suppression, Inc., LSEA Series or equal.
 3. Signal
 - a. Panel surge arrestors (PSA) shall be Edco PC 642C Series, 2 channel or equal.
 - b. Field surge arrestors (PSA) shall be Edco SS64 Series, pipe style or equal.
 4. Ethernet Surge Protection (when used)

- a. Atlantic Scientific, 240040P, plug in surge arrestor, via FB Suppressors, Inc., (305) 247-3477.
- K. Analog Display Controller
 - 1. Provide a Digital LED process display unit current, voltage, TC and RTD inputs, with 4-20mA input.
 - 2. Unit shall be 1/8" DIN Precision Digital Trident/Trident X2, model PD-765 digital display with four-digit display, and 12-36VDC/12-24VAC Power option, or a Red Lion PAX as indicated on the drawings.
 - 3. Unit shall have analog input and relay output option. Type NEMA 4X, IP65 Front.
- L. Pilot Lights
 - 1. Provide Type SK 30mm Pilot lights, corrosion resistant.
- M. Panel Mounted Switches
 - 1. Provide SQ D type SK corrosion resistant non-illuminated operators.
 - 2. Momentary push button type for turn on fill valve.
 - 3. Provide SQ D 9001 SK corrosion resistant HOA selector switches.

2.7 FIELD INSTRUMENTATION AND CONTROL EQUIPMENT SPECIFICATIONS

- A. General
 - 1. The materials specified below shall establish the type and quality of materials used.
 - 2. Refer to Civil, Mechanical, and Electrical plans for additional requirements.
 - 3. Provide assembly details for review and approval. Provide all materials for a complete installation.
 - 4. Provide installation details including Unistrut and 316SS hardware for wall mounting, or pipe stand or stanchion where it applies, see the details and drawings.

2.8 MASSFLOW BROOKS CONTROLLER

- A. Provide a Brooks mass-flow controller SLAMf 50 series with the option for analog and DC power terminals. Refer to the control schematic on the drawings and other specifications. Provide this mass-flow controller at each of the control panels for the Main and RL Pratt plants.
- B. Provide all terminations, and configuration of the mass-Flow controller to operate as described in the drawings and specifications. Include all instrument process lines, impulse piping and tubing for sample as required and all fittings for proper termination of the sample lines
- C. Provide surge protection for the analog signal. Provide proper grounding as required by the Vendor and as indicated on drawings.

2.9 AMMONIATOR SOLENOID VALVE

- A. Provide a 120V powered stainless steel (cannot be Brass) 2 way/2 position solenoid valve as manufactured by ASCO. Unit shall be 4X, with the proper compatible seals and normally closed. Provide all piping and materials compatible with ammonia.

2.10 AMMONIA LEAK DETECTION SYSTEM

- A. Provide an ammonia Leak detection system as indicated on the plans and other specifications, include system with signals to be connected to the PLC at each of the plants.

2.11 NAMEPLATES, NAME TAGS AND SERVICE LEGENDS

- A. All components provided under this section, both field and panel mounted, shall be provided with permanently mounted name tags bearing the entire IA tag number of the components. Panel mounted tags shall be plastic; field mounted tags shall be stamped stainless steel.
- B. The panel drawings refer to nameplates and service legends: nameplates are defined as inscribed laminated plastic plates mounted under or near a panel face mounted instrument. Service legends are defined as inscribed laminated plastic integrally mounted on a panel face mounted instrument.
- C. Service legends and nameplates shall be engraved, rigid, laminated plastic. Service legends and nameplates shall be fastened to the panel by screws or with a specially applied adhesive. Fastening shall not depend only on the adhesive.

PART 3 - EXECUTION

3.1 INSTALLATION, CALIBRATION, TESTING, START UP AND INSTRUCTION

- A. General
 - 1. Under the supervision of a Single supplier, all systems specified in this section shall be installed, connected, calibrated and tested and in coordination with the Owner and Engineer shall be started to place the process in operation. This shall include final calibration in concert with equipment specified elsewhere in these specifications as well as equipment provided by the Owner.
- B. Installation and Connection
 - 1. The Contractor shall install and connect all field mounted components and assemblies. The installation personnel shall be provided with a final reviewed copy of the shop drawings and data.
 - 2. The instrument process lines, impulse piping lines and air signal tubing shall, in general, be installed in a similar manner to the installation of conduit specified under Section 16000.
 - 3. Bends shall be formed with the proper tools and to uniform radii and shall be made without deforming or thinning the walls of the tubing.
 - a. Unless otherwise indicated, all fittings, adapters, impulse piping, valves, etc. shall be 316 stainless. Valves shall be Whitey Series 40 or an approved equal.
- C. Calibration
 - 1. All new instruments shall be calibrated.
 - a. All instruments and systems shall be calibrated after installation, in accordance with the component manufacturer's written instructions. This shall provide that those components having adjustable features are set carefully for the specific conditions and applications of this installation and that the components and/or systems are within the specified limits of accuracy. Defective elements which cannot achieve proper calibration or accuracy, either individually or within the system shall be replaced. This calibration work shall be accomplished by the SUPPLIER.
 - b. Proof of Conformance – The burden of proof of conformance to the specified accuracy and performance is on the Contractor using his designated supplier. The Contractor shall supply necessary test equipment and technical personnel if called upon to prove accuracy and performance at no additional cost to the Owner, wherever reasonable

doubt or evidence of malfunction or poor performance may appear within the guarantee period.

D. Testing

1. All systems shall be exercised through operational tests in the presence of the Engineer in order to demonstrate achievement of the specified performance. Operational tests depend upon completion of work specified elsewhere in these specifications. The scheduling of the test shall be coordinated by the Contractor among all parties involved so that the tests may proceed without delays or disruption by incomplete work.

E. Start Up

1. When all systems are assessed by the Contractor to have been successfully carried through complete operational tests with a minimum of simulation, and the Engineer concurs in his assessment, start up by the plant operating personnel can follow.

- END OF SECTION -

SECTION 16912

PLC AND SCADA PROGRAMMING

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Contractor Responsibilities
 - 1. Provide, install and configure all hardware.
 - 2. Test and demonstrate all hardware.
 - 3. Provide assistance during testing and demonstration as may be required.
 - 4. All Vendor provided systems, and controls and field instruments with equipment configuration and programming shall be provided by the Revere Controls Contractor. The existing PLC interface programming shall be provided by the I&C Contractor. The programming shall include updating the plant SCADA to reflect the ammonia system operation. The Contractor shall provide up to 8 additional hours of troubleshooting and configuring the PLC and SCADA system for the proper operation of the proposed ammonia system.
 - 5. Programming documentation shall be provided. Include fully annotated rung and instruction comments. Provide complete documentation to the Owner's and Engineer's satisfaction.
- B. PLC and SCADA programming Responsibilities
 - 1. All plant wide HMI and SCADA programming as it relates to the ammonia system shall be carried out by the Revere Controls Contractor.

PART 2 - PRODUCTS

2.1 PROGRAMMING SOFTWARE

- A. PLC Programming.
 - 1. Contractor shall provide the programming and software drivers to program at the existing PLC control panels at the Main plant and the (proposed) PLC system at the RL Pratt plant (as the existing PLC systems/control panels and SCADA system is being upgraded under a separate contract by Revere Controls). The Contractor shall install, test and provide configuration, calibration, and programming as required for the proposed ammonia system and the related posed I/O and the proposed operation logic of the sodium hypochlorite feed equipment.

PART 3 - EXECUTION

3.1 PLC SIGNALS AMMONIA CONTROL PANELS - PROGRAMMING

- A. Programming strategies:
 - 1. The Contractor shall program the PLC equipment listed below for each of the I/O discrete and analog inputs and outputs called out in the drawings and as listed in these specifications.

2. The programming shall support I/O functions from the proposed Ammonia Leak detection panel as indicated herein, at each plant, the Main and RL Pratt WTP plant, and on the drawings
3. The programming shall support I/O functions from the proposed HACH 5500 analyzer and up to four Analog inputs for monochloramine readings and free and total chlorine. These shall apply to both the Main and RL Pratt WTP plans, see the drawings.
4. The programming of the proposed ammonia feed system and its field instruments shall be provided to support the proposed solenoid valve and the Brooks total mass controller with discrete inputs and outputs, and analog inputs and outputs, see the drawings.
- B. PLC and SCADA programming of Discrete and Analog I/O from Proposed and Existing Equipment
 1. The Hach 5500 Analyzer unit shall provide 4 analog inputs as listed on the drawings; for the Main WTP these inputs shall be at the existing HSP PLC control panel. Similarly at the RL Pratt WTP these inputs shall be at the existing HSP PLC control panel (modified under Revere Controls PLC and SCADA upgrade separate project).
 2. The Ammonia Feed control panel shall provide a Discrete Input, a Discrete Output, an Analog Input, and an Analog Output as indicated on the drawings; for the Main WTP these inputs and outputs shall be connected to the existing Filter Control Panel. At the RL Pratt WTP these inputs and outputs shall terminate at the modified Sodium Hypochlorite PLC control panel (modified under Revere Controls PLC and SCADA upgrade separate project).
 3. The proposed replacement Ammonia Leak detection pane with alarm shall provide an Analog Input, and a Discrete Input and Discrete Output as called out in the drawings. This I/O shall terminate at the Main WTP at the Filter PLC Control Panel. AT the RL Pratt WTP the I/O from the replacement ammonia leak detection system panel shall terminate at the upgraded Sodium Hypochlorite control panel being upgraded by Revere Controls.
- C. System Startup and proposed sequence of operation to be implemented into PLC and SCADA programming for the proper interfacing and operation of the proposed ammonia system:
 1. Contractor shall utilize the preferred systems integrator (Revere Controls) to develop HMI screens and programming associated with the new ammonia system.
 - a. Refer to this Specification, and other control related specification section drawings for further details.
 - b. HMI screens shall be submitted to Owner for review and approval prior to startup.
 - c. Loop checks shall be witnessed by engineer and completed ahead of startup.
 2. The contractor shall provide more two (2) weeks-notice prior to startup.
 3. The contractor shall have the following entities on-site during system startup:
 - a. CMAR with adequate staff/laborers to address construction related issues during startup.
 - b. The Contractor shall furnish the services of a qualified manufacturer's technical representative to perform the tasks as follows for each set of ammonia mass flow meters and controllers:
 - 1) Witness and check installation.
 - 2) Assist the Contractor in conducting field tests and preparing a written report as specified.
 - 3) Witness and check start-up of the system.

- 4) Assist Contractor in making adjustments and modifications as necessary to optimize operation of the system components and to minimize surge pressures.
 - 5) Troubleshoot and correct any mechanical or control problems with the mass flow meters and accessories that are noted during tests and start-up.
 - 6) Submit written certification that the system has been properly installed, tested, and adjusted; that the system operates as specified or as required; and that all controls and protective devices operate properly, including date of final acceptance test, as well as a listing of all persons present during the tests.
 - 7) Investigate and supervise correction of any operating problems that may arise up to the end of the guarantee period of the mass flow meters.
 - 8) Instruct Owner in the operation and maintenance of equipment.
 - 9) Electrical subcontractor with adequate staff/laborers to address construction related issues during startup.
- c. Programmer/Integrator
- 1) The Contractor's programmer shall remain on-site until work is complete to Owner's satisfaction.
 - 2) Each system shall be started up independently and separately for the (Main and RL Pratt WTP). Each plant shall be fully functional and accepted by the Owner prior to startup of the succeeding plant. Acceptance is anticipated to require multiple days of operation and functional testing prior to acceptance of particular system prior to commencing work on subsequent plant. Therefore, a minimum of (3) startups will be necessary. Startup sequence shall be as follows:
 - a) Open/adjust manual valves to normal operating positions.
 - b) Run system in AUTO and complete necessary programming changes to achieve desired feed rate.
 - c) Demonstrate appropriate pounds per hour feed rates accurate with rotameters and thermal mass flow meters.
 - d) Monitor combined chloramine residual in product stream.
 - e) Functional test and tweak feed system to achieve desired residual.
 - f) Repeat procedure for varying product flow conditions for each facility:
 - (1) Main WTP
 - I. Min. plant flow of 1 MGD
 - II. Max. plant flow of 2.2MGD
 - (2) RL Pratt WTP
 - I. Min. plant flow of 1 MGD
 - II. Max plant flow of 2.7 MGD
 - (3) Upon Owner acceptance of the system, Contractor is permitted to remove old ammonia facilities. Refer to other specification sections and provide settings and limits as listed on those specifications.

- END OF SECTION -

NO SPECIFICATIONS ON THIS PAGE FOR FORMATTING PURPOSES

SECTION 17300
INSTRUMENTATION AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. The Contractor shall furnish, install and place into service operating process instrumentation, control systems and panels including accessories, related to this facility, all as shown on plans and specified herein.
 - 1. Existing plant systems must remain operational during construction. Nighttime and/or other off hours work may be required to support plant operations and shall be included in the contractor's bid.
 - 2. The instrument contractor is responsible to verify existing control panels and to provide all demolition and modification as necessary for the installation of the new I/O in the existing local control panels.
 - 3. Equipment rendered obsolete by this construction must be removed from the existing panels. Equipment previously abandoned must also be removed from the panels. Functioning equipment present in these panels must remain functional and will be included on the instrument contractor's "As-Built" drawings. No existing equipment, with the exception of the field wires and panel, may be reused as part of the new control system. New power supplies, surge suppressors, terminal strips, etc. for all I/O to be connected to the new control system must be provided new. The instrument contractor is responsible to provide completed panels that are clean, functional and present a professional workman-like appearance.
 - 4. All wires in control panels must be permanently tagged and shown on the as-built drawings. This includes all spare and abandoned wires and cables. Spare and abandoned cables are to be taped and left coiled in the panels for future use. Cable and wire numbers are to be assigned by the contractor, documented and controlled to prevent duplicate numbers. The contractor shall turn over to the Village, at the project conclusion, a cable and wire list showing assigned numbers and their physical location in the plant.
 - 5. See electrical drawings and specifications for additional work required of the instrument contractor as part of this project to supply demolition instructions, relocation and modification instructions for equipment not necessarily shown on the instrument drawings. There is also specification section 16900 with additional control panel and instrumentation information and requirements.
- B. Work Includes: Engineering, furnishing, installing, testing, programming, documenting, starting up, and Village training for a complete Instrumentation and Control System.
Major parts are:
 - 1. Furnishing of Ammonia Feed Control Panel FP-751 and Gas Alarm Panel CP-741.
 - 2. Furnishing of instrumentation
 - 3. Field calibration of furnished instruments
 - 4. Connection of I/O to existing spare I/O terminal points
 - 5. PLC Programming
 - 6. SCADA HMI Programming
 - 7. Functional Acceptance Testing
- C. Instrument and Control (I&C) Supplier work scope:

1. For I&C equipment and ancillaries provide the following:
 - a. Completing detail design.
 - b. Required Submittals.
 - c. Equipment and ancillaries.
 - d. Instructions, details, and recommendations to, and coordination with, Contractor for proper installation.
 - e. Verify readiness for operation.
 - f. Verify the correctness of final power and signal connections.
 - g. Starting up.
 - h. Testing and coordination of testing.
 - i. Training.
2. Verify following work not by I&C Supplier is provided:
 - a. Correct type, size, and number of signal wires with their raceways.
 - b. Correct electrical power circuits and raceways.
3. For equipment not provided under I&C Supplier, but directly connected to equipment required by I&C Supplier:
 - a. Obtain from Contractor, manufacturer's information on installation, interface, function, and adjustment.
 - b. Coordinate with Contractor to allow required interface and operation with I&C System.
 - c. For operation and control, verify that installations, interfacing signal terminations, and adjustments have been completed with manufacturer's recommendations.
 - d. Test to demonstrate required interface and operation with I&C System.
 - e. Examples of items in this category, but not limited to the following:
 - 1) Valve operators, position switches, and controls.
 - 2) Chemical feed pump and feeder speed/stroke controls.
 - 3) Automatic samplers.
 - 4) Motor control centers.
 - 5) Adjustable speed drive systems.
 - f. Examples of items not in this category:
 - 1) Internal portions of equipment provided under Division 16, Electrical, that are not directly connected to equipment under I&C System.
 - 2) Internal portions of I&C Systems provided as part of package systems and that are not directly connected to equipment provided under I&C System.
4. Wiring external to equipment provided by I&C Supplier:

Special control and communications cable: Provided by I&C Supplier.
- D. Software Engineering work scope:
 1. Configuration of PLCs, including:
 - a. Correct I/O mapping and scaling.
 - b. Ladder logic implementing defined control strategies.
 - c. SCADA interface mappings
 - d. SCADA HMI screen modifications (VT SCADA)
 - e. Specifications/documents including: I/O Checklist, Loops Checks, Functional Tests
 - f. As-built documentation
 2. Start-up support, including system testing.
 3. System training.
 4. Computer based SCADA system modifications (VT SCADA)

5. Integration of signals with Village's reporting and trending software, as directed by the Village.

1.2 SINGLE INSTRUMENT SUPPLIER

- A. The Contractor shall assign to the Single Instrument and Control (I&C) supplier full responsibility for the functional operation of all new instrumentation systems. The Contractor shall have said supplier perform all engineering necessary in order to select, to furnish, to program, to supervise installation, connection, to calibrate, to place into operation of all sensors, instruments, alarm equipment, control panels, accessories, and all other equipment as specified herein.
- B. The single instrument and controls supplier shall demonstrate his ability to successfully complete projects of similar sizes and nature. Provide references (including phone number and contact name) for at least three projects successfully completed in which the following tasks were performed: system engineering, documentation including panel assembly, schematics and wiring diagram, programming, field testing, calibration and start-up, operator instruction and maintenance training.
- C. The foregoing shall enable the Contractor and the Village to be assured that the full responsibility for the requirements of this Section shall reside in an organization which is qualified and experienced in the water management field and its process technology on a functional systems basis.
- D. The single I&C supplier shall have a UL approved shop and shall build all panels according to UL 508A.
- E. The single software engineering supplier shall demonstrate his ability to successfully complete projects of similar sizes and nature. Provide references (including phone number and contact name) for at least three projects successfully completed in which the following tasks were performed: ladder logic programming, computer based SCADA system configuration, documentation, field testing, start-up, and operator instruction.
- F. The I&C supplier shall be Revere Controls.

1.3 INSTALLATION WORK

- A. Nothing in this part of the Specifications shall be construed as requiring the Contractor to utilize personnel supplied by his assigned instrument manufacturer's organization, or any division thereof, to accomplish the physical installation of any elements, instruments, accessories or assemblies specified herein. However, the Contractor shall employ installers who are skilled and experienced in the installation and connection of all elements, instruments, accessories and assemblies; portions of their work shall be supervised or checked as specified in Part 3, herein.

1.4 PREPARATION OF SUBMITTAL OF DRAWINGS AND DATA

- A. It is incumbent upon the Contractor to coordinate the work specified in these Sections so that a complete I&C system for the facility shall be provided and shall be supported by accurate Shop and record Drawings. As a part of the responsibility as assigned by the Contractor, the Single I&C supplier shall prepare and submit through the Contractor, complete organized Shop Drawings, as specified in Part 2.02, herein. Interface between instruments, motor starters, etc. shall be included in his Shop Drawing submittal.
2. During the period of preparation of this submittal, the Contractor shall authorize direct, informal liaison between his Single I&C supplier and the Village for exchange of technical

information. As a result of this liaison, certain minor refinements and revisions in the systems as specified may be authorized informally by the Village, but these shall not alter the scope of work or cause increase or decrease in the Contract Price. During this informal exchange, no oral statement by the Village shall be construed to give formal approval of any component or method, nor shall any statement be construed to grant formal exception to, or variation from these Specifications.

1.5 ADDITIONAL TECHNICAL SERVICES

- A. At no separate additional cost to the Village, the Contractor shall provide the following services of qualified technical representatives of the Single I&C supplier (See Part 3, herein).
 - 1. To supervise installation and connection of all instruments, elements, and components of every system, including connection of instrument signals to primary measurement elements and to final control elements such as pumps, valves, and chemical feeders;
 - 2. To make all necessary adjustments and tests
 - 3. To instruct plant operating and maintenance personnel on the control system. This time shall be in addition to whatever time is required for other facets of work at the site, and shall be during the Village's normal working days and hours.
 - 4. To terminate and test all fiber optic cable and affected devices where called for.

1.6 GUARANTEE

- A. The Contractor shall guarantee all equipment and installation, as specified herein, for a period of one (1) year following the date of completion of the work. To fulfill this obligation, the Contractor shall utilize technical service personnel designated by the Single I&C supplier to which the Contractor originally assigned project responsibility for instrumentation. Services shall be performed within two (2) calendar days after notification by the Village.

1.7 ADDITIONAL PROVISIONS

- A. The applicable provisions of the following Sections under Electrical Work shall apply to work and equipment specified herein, the same as if stated in full, herein:
 - 1. Codes and Standards
 - 2. Equipment, Materials and Workmanship
 - 3. Testing
 - 4. Grounding
 - 5. Equipment Anchoring
 - 6. Conductor and Equipment Identification
 - 7. Terminal Cabinets and Control Compartments
 - 8. Process Control Devices

1.8 NEWEST MODEL COMPONENTS

- A. All meters, instruments, and other components shall be the most recent field proven models marketed by their manufacturers at the time of submittal of Shop Drawings unless otherwise specified to match existing equipment. All technical data publications included with submittals shall be the most recent issue.

1.9 INSPECTION OF THE SITE AND EXISTING CONDITIONS

- A. The instrumentation drawings were developed from past record drawings and information supplied by the Village.

- B. Before submitting a bid, visit the site and determine conditions at the site and at all existing structures in order to become familiar with all existing conditions and instrumentation and control systems which will, in any way or manner, affect the work required under this Contract. No subsequent increase in Contract cost will be allowed for additional work required because of the Contractor's failure to fulfill this requirement.

1.10 RELATED WORK

- A. Division 11 – Equipment
- B. Division 16 – Electrical

PART 2 - PRODUCTS

2.1 INSTRUMENTATION CRITERIA

- A. DESIGNATION OF COMPONENTS:
In these Specifications and on the Drawings, all systems, meters, instruments, and other elements are represented schematically, and are designated by numbers, as derived from criteria in Instrument Society of American Standard ANSI/ISA S5.1-1973. The nomenclature and numbers designated herein and on the Drawings shall be employed exclusively throughout Shop Drawings, data sheets, and similar materials. Any other symbols, designations, and nomenclature unique to the manufacturer's standard methods shall not replace these prescribed above, used, herein and on the Drawings.
- B. SIGNAL CHARACTERISTICS:
Signals shall be electrical, as indicated herein, and shall vary in direct linear proportion to the measured variable, except as noted. Electrical signals outside control panel(s) shall be 4 to 20 milliamperes DC, except as noted. Signals within enclosures may be 1-5 volts DC.
- C. MATCHING STYLE, APPEARANCE AND TYPE:
All instruments to be panel mounted at the control panels shall have matching style and general appearance. Instruments performing similar functions shall be of the same type, model, or class, and shall be of one (1) manufacturer.
- D. SIGNAL ISOLATORS, CONVERTERS AND POWER SUPPLIES:
Signal isolators shall be furnished and installed in each measurement and control loop, wherever required, to insure adjacent component impedance match or where feedback paths may be generated. Signal converters shall be included where required to resolve any signal level incompatibilities. Signal power supplies shall be included, as required by the manufacturer's instrument load characteristics, to insure sufficient power to each loop component.
- E. ALTERNATIVE EQUIPMENT OR METHODS:
Equipment or methods requiring redesign of any project details are not acceptable without prior approval of the Village. Any changes inherent to a proposal alternative shall be at no additional cost to the Village. The required approval shall be obtained in writing by the I&C Subcontractor through the Contractor prior to submittal of Shop Drawings and data. Any proposal for approval of alternative equipment or methods shall include evidence of improved performance, operational advantage and maintenance enhancement over the equipment or method specified, or shall include evidence that a specified component is not available. Otherwise, alternative equipment (other than direct, equivalent substitutions) and alternative methods shall not be proposed.

2.2 DETAILED SYSTEMS DRAWINGS AND DATA

A. CONTENT:

The Contractor shall submit detailed electronic (PDF) Shop Drawings and data prepared and organized by the Single I&C supplier designated at the time of bidding. The submittals shall be submitted in accordance with Section 01300 – SUBITTALS. These Drawings and data shall be submitted as a complete package at one time and shall include:

1. Drawings showing definite diagrams for every instrumentation loop system. These diagrams shall show and identify each component of each loop or system using legend and symbols from ISA Standard S5.4, each having the format of ISA Standard S5.1 as used on the Project Drawing. (Each system or loop diagram shall be drawn on a separate Drawing sheet.)
2. Data sheets for each component, together with a technical product brochure or bulletin. The data sheets shall show, where applicable:
 - a. Component function description used herein and on the Drawings;
 - b. Manufacturer's model number or other product designation;
 - c. Project tag number used herein and on the Drawings;
 - d. Project system loop of which the component is a part;
 - e. Project location or assembly at which the component is to be installed;
 - f. Input and output characteristics;
 - g. Scale range and units (if any) and multiplier (if any);
 - h. Requirements for electric supply (if any);
 - i. Requirements for air supply (if any);
 - j. Materials of component parts to be in contact with, or otherwise exposed to, process media;
 - k. Calibration curves as required.
 - l. Special requirements or features.

A complete index shall appear in the front of each submittal. A separate technical brochure or bulletin shall be included with each instrument data sheet. The data sheets shall be indexed in the submittal by systems or loops, as a separate group for each system or loop. If, within a single system or loop, a single instrument is employed more than once, one data sheet with one brochure or bulletin may cover all identical uses of that instrument in that system. Each brochure or bulletin shall include a list of tag numbers for which it applies. System groups shall be separated by labeled tags.

3. Drawings showing both schematic and wiring diagrams for control circuits. Complete details on the circuit interrelationship of all devices within and outside each control panel shall be submitted first, using schematic control diagrams. Subsequent to return of this first submittal by the Village, piping and wiring diagrams shall be prepared and submitted for review by the Village; the diagrams shall consist of component layout Drawings to scale, showing numbered terminals on components together with the unique number of the wire to be connected to each terminal. Piping and wiring diagrams shall show terminal assignments from all primary measurement devices, such as flow meters, and to all final control devices, such as samplers, pumps, valves, and chemical feeders. The Contractor shall furnish all necessary equipment supplier's Shop Drawings to facilitate inclusion of this information by the I&C system supplier.

Schematic and wiring diagram criteria shall be followed as established in NEMA Standards Publication ANSI/NEMA ICS-1-1978, "Industrial Control and Systems."

4. Assembly and construction Drawings for each control panel and for other special enclosed assemblies for field installation. These Drawings shall include dimensions, identification of all components, surface preparation and finish data, nameplates, and the like. These Drawings also shall include enough other details, including prototype photographs, to define exactly the style and overall appearance of the assembly; a finish treatment sample shall be included.
 5. Installation, mounting and anchoring details for all components and assemblies to be field-mounted, including conduit connection or entry details.
 6. Complete and detailed bills of materials. A master Bill of Materials listing all field mounted devices, control panels and other equipment that shall be shipped to the job site. A Bill of Materials for each control panel listing all devices within the panel.
 7. Modifications to existing equipment. A complete description of all proposed modifications to existing instrumentation equipment, control panels, control devices, cabinets, etc., shall be submitted with the Shop Drawings complete with detailed Drawings of the proposed modifications.
- B. ORGANIZATION AND BINDING:
- The organization of initial Shop Drawing submittal required above shall be compatible to eventual inclusion with the Technical Manuals submittal and shall include final alterations reflecting "as built" conditions. Accordingly, the initial Shop Drawing submittal shall be in electronic format (PDF).

2.3 TECHNICAL MANUALS

- A. Submit Electronic copies (PDF) of operation and maintenance manuals in accordance with Section 01300 – SUBMITTALS.
- B. Initially, these manuals shall be submitted to the Village for favorable review after return of favorably reviewed Shop Drawings and data required under Part 3, herein. Following the Village's review, the manual shall be returned to the Contractor with comments. The manuals shall be revised and/or amended as required and the requisite final manual shall be submitted to the Village fifteen (15) days prior to start-up of systems.
- C. In addition to updated Shop Drawing information to reflect actual existing conditions, each set of technical manuals shall include installation, connection, operating, trouble-shooting, maintenance, and overhaul instructions in complete detail. This shall provide the Village with comprehensive information on all systems and components to enable operation, service, maintenance, and repair. Exploded or other detailed views of all instruments, assemblies, and accessory components shall be included together with complete parts lists and ordering instructions.

2.4 SPARE PARTS (ADD PARTS AS REQUIRED)

- A. The Contractor shall furnish at no additional cost for recommended spare parts covering items required under Section 17300 and spare parts listed below.
 1. Twelve (12) spare fuses for each size and type used.
 2. Six (6) spare surge protectors/arrestors for each type used.

2.5 CONTROL PANELS

- A. GENERAL:

New control panels shall be furnished and installed under this Contract. They shall house the instrumentation, control devices, indicating lights, all necessary accessories, wiring and

terminal blocks as necessary and as shown on the Drawings and as described herein. Control panel doors shall be equipped with a door latch kit or a fast operating clamp assembly as applicable. Each control panel shall be properly grounded and as such be provided with a ground terminal block. Control panels shall be properly sized for installation through new and existing entry ways and custom fit for locations as shown on the drawings.

B. CONSTRUCTION:

1. OUTDOOR: All outdoor control panels shall be NEMA 4X with drip shield kit, 3 point latch mechanism and 316 stainless steel 14 gauge construction.

C. SIGNAL AND CONTROL CIRCUIT WIRING:

1. Wire Type and Sizes

Conductors shall be flexible stranded copper wire; these shall be U.L. listed Type THHN and shall be rated 600 volts. Wire for control signal circuits and alarm input circuits shall be 16 AWG. All instrumentation cables shall be shielded No. 20 AWG with a copper drain wire. All special instrumentation cable such as between sensor and transmitter shall be supplied by the I&C supplier.

2. Wire Insulation Colors

Conductors supplying 120 volt AC power on the line side of a disconnecting switch shall have a black insulation for the ungrounded conductor. Grounded circuit conductors shall have white insulation. Insulation for ungrounded 120 volt AC control circuit conductors shall be red. All wires energized by a voltage source external to the control board(s) shall have yellow insulation. Insulation for all DC conductors shall be blue.

3. Wiring Installation

All wires shall be run in plastic wireways except (1) field wiring, (2) wiring run between mating blocks in adjacent sections, (3) wiring run from components on a swing-out panel to components on a part of the fixed structure, and (4) wiring run to panel mounted components. Wiring run from components on a swing-out panels to other components on a fixed panel shall be made up in tied bundles. These shall be tied with nylon wire ties, and shall be secured to panels at both sides of the "hinge loop" so that conductors are not strained at terminals.

Wiring run to control devices on the front panels shall be tied together at short intervals with nylon wire ties and secured to the inside face of the panel using adhesive mounts. Wiring to rear terminals on panel mount instruments shall be run in plastic wireways secured to horizontal brackets run above or below the instruments in about the same plane as the rear of the instruments.

Shields of shielded instrument cable shall only be grounded on one side of each cable run. The side to be grounded shall always be in the field as applicable.

Care shall be exercised to properly insulate the ungrounded side, to prevent ground loops from occurring.

Conformance to the above wiring installation requirements shall be reflected by details shown on the Shop Drawings for the Village's review.

4. Wire Marking

Each signal, control, alarm, and indicating circuit conductor connected to a given electrical point shall be designated by a single unique number which shall be shown on all Shop Drawings. These numbers shall be marked on all conductors at every terminal using permanently marked heat-shrink plastic. Instrument signal circuit conductors shall be tagged with unique multiple digit numbers. Black and white wires from the circuit breaker

panelboard shall be tagged including the one (1) or two (2) digit number of the branch circuit breaker.

5. Terminal Blocks

Terminal blocks shall be molded plastic with barriers and box lug terminals, and shall be rated 15 amperes at 600 volts. White marking strips, fastened securely to the molded sections, shall be provided and wire numbers or circuit identifications shall be marked thereon with permanent marking fluid. Terminal blocks shall be General Electric Type CR 151A1 with mounting rack, equivalent by Cinch-Jones or equal.

D. PAINTING:

1. Control panels shall be thoroughly cleaned and sandblasted per SSPC SP 6 (Commercial Blast) after which surfaces shall receive a prime coat (Amercoat 185, Koppers 622HB, or equal) 3 mils dry, followed by two (2) or more finish coats (Amercoat 5401, Koppers 501, or equal) 3 mils dry, for a total thickness of the complete system of 6 mils. The finished color of the outside surfaces shall be as specified in the contract drawings. The inside surfaces shall have a white finish coat.
2. Exterior control panels shall be painted white on the exterior. A durable coating system with a five-year full replacement guarantee shall be used to coat the stainless steel panels. Defects in the coating systems include, but are not limited to, fading, color change, cracking peeling, or otherwise disbonding.

2.6 ACCESSORIES

- A. General purpose relays in the control panels shall be plug in type with contacts rated 10 amperes at 120 volts AC. The quantity and type of contacts shall be as shown on the Drawings. Each relay shall be enclosed in a clear plastic heat and shock resistant dust cover. Sockets for relays shall have screw type terminals. Relays shall be Potter and Brumfield Type KRP or KUP, Square-D Type K, or equal.
- B. Time delay relays shall be solid state on-delay or off-delay type with contacts rated 10 amperes at 120VAC. Units shall include adjustable dial with graduated scale or digital switch setting covering the time range in each case. Time delay relays shall be Agastat Series 7000, Omron series H3, SSAC type TDM, Macromatic TR-5 Series, or approved equal.
- C. Additional slave relays shall be installed when the number or type of contacts shown exceed the contact capacity of the specified relays and timers.
- D. Switches and indicating lights shall be round 30.5mm configuration, heavy duty and corrosion resistant. Legend plate shall be standard size square style laminate with white field and black markings as shown.
- E. Indicating lights shall LED and wired for push-to-test functionality. Lens color shall be as noted. Pushbuttons shall include full guard with flush button and selector switches shall include a black non-illuminated knob on switch, unless otherwise noted. Contact arrangement and configuration shall be as shown.
- F. Devices shall be Cutler Hammer Type E-30, General Electric Type CR104, Square D class 9001 type Sk, Allen Bradley Bulletin 800 or equal.
- G. Selector switches shall be of the rotary type with the number of positions as shown on the Drawings. Color, escutcheon engravings, contact configurations and the like shall be as shown. Devices shall be Cutler Hammer Type E-24, General Electric Type CR104, or equal.
- H. Circuit breakers shall be single pole, 120 volt, 15 ampere rating or as required to protect wires and equipment and mounted inside the panels as shown.

- I. Nameplates shall be supplied for identification of all field mounted elements, including flow meters and their transmitters. These nameplates shall identify the instrument, or meter, descriptively, as to function and system. These nameplates shall be fabricated from black-face, white-center, laminated engraving plastic. A nameplate shall be provided for each signal transducer, signal converter, signal isolator, each electronic trip, and the like, mounted inside the control panels. These shall be descriptive, to define the function and system of such element. Adhesives shall be acceptable for attaching nameplates. Painted surfaces must be prepared to allow permanent bonding of adhesives. Nameplates shall be provided for instruments, function titles for each group of instruments and other components mounted on the front of the control panels as shown. These nameplates and/or individual letters shall be fabricated from VI-LAM, Catalog No. 200, manufactured by N/P Company, or equivalent by Formica, or equal. Colors, lettering, style and sizes shall be as shown or as selected by the Village.

2.7 SURGE PROTECTIVE DEVICE (SPD) PROTECTION

A. General

1. SPD protection shall be provided to protect the electronic instrumentation system from induced surges propagating along the signal and power supply lines. The protection systems shall be such that the protective level shall not interfere with normal operation, but shall be lower than the instrument surge withstand level, and be maintenance free and self-restoring.
2. Instruments shall be housed in a suitable case, properly grounded. Ground wires for all SPD'S shall be connected to a good earth ground and where practical, each ground wire run individually and insulated from each other. These protectors shall be mounted within the instrument enclosure or a separate NEMA-4X junction box coupled to the enclosure.
2. Requirements
 1. All electrical and electronic elements shall be protected against damage due to electrical transients induced in interconnecting lines from lightning discharges and nearby electrical systems.
 2. Manufacturer's Requirements: All surge protection devices shall be multi stage serial devices manufactured by a company that has been engaged in the design, development, and manufacture of such devices for at least 5 years. Acceptable manufacturers shall be Phoenix Contact, Edco, Transtector, or equal.
 3. Surge protection device installations shall comply with UL 94, the National Electric Code (NEC), and all applicable local codes.
 4. Surge protection devices shall be installed as close to the equipment to be protected as practically possible.
 5. Suppressor Locations: As a minimum, provide surge protective devices at the following locations:
 - a. At all connections between AC power, DC power and associated electrical and electronic equipment, including panels, cabinets, rack assemblies, and field mounted powered instruments.
 - b. At both ends of all two-wire analog signal circuits and all four-wire analog power/ signal circuits.

- c. At the panel end of 24 VDC or 120 VAC discrete input (dry contact) and discrete output circuits that extend to devices outside of the PLC enclosure.
Provide 24VDC and 24VAC power supplies for the different instrument and panel equipment, refer to the equipment's vendor literature for load burden on the power supply and make sure the power supplies are sized to handle all the load in the control panel, and the total load of the field equipment connected to the control panel.
- d. At each device termination point of copper-based communication cables (serial, parallel, Ethernet, , etc.).
- e. On all telephone communications lines (if needed).
- f. RF antenna cable radio terminus.
- 6. Surge protective devices shall be as follows:
 - a. 120-Volt power surge suppressor shall be EDCO series HSP121BT, Phoenix Contact Plugtrab series, Weidmuller equivalent, or equal with fault indicator and U.L. 1449 compliant.
 - b. 4-20 mA signal line protection at the panel side shall be EDCO DRS series, Phoenix Contact Plugtrab series, Weidmuller SD series, or equal with fault indicator.
 - c. Two-wire discrete input/output signal line protection shall be Phoenix Contact Plugtrab series, Weidmuller SD series, or equal with fault indicator.

2.8 INSTRUMENTATION AND CONTROL EQUIPMENT SPECIFICATIONS

A. General Requirements

1. The instrumentation subcontractor shall furnish, install, test and place in operation process instrumentation (flow elements, pressure switches, etc.) as scheduled herein together with all signal converters, transmitters, isolators, amplifiers, etc. to interface all instrumentation, panels, controls and process equipment control panels with the process controls as shown on the Drawings and as specified. The Contractor may elect to install primary elements (flowmeters, etc.) on process lines provided that the instrumentation subcontractor provides full on-site supervision during installation. Mounting of associated transmitters, indicators, power supplies, brackets and appurtenances shall be provided as specified herein and shown on the Drawings.
2. It is the intent of the Contract Documents that all process taps, isolation valves, nipples, penetrations, embedded instrumentation supports, conduit, wiring, terminations, and the installation of process instrumentation on process lines shall be provided under this Contract. The instrumentation subcontractor shall supervise installation of equipment provided under this Division where installation is provided by others.
3. Tapping and connections for primary process sensors shall be sized to suit each individual installation and the requirements of the instrument served. The Contractor shall ensure that the location, supports, orientation and dimensions of the connections and tapping for instrumentation furnished under this Division are such as to provide the proper bracing, the required accuracy of measurement, protection of the sensor from accidental damage and accessibility for maintenance while the plant is in operation. Isolation valves shall be provided at all process taps.
4. Equipment shall be located so that it is accessible for operation and maintenance. The instrumentation subcontractor shall examine the Drawings and Shop Drawings for various items of equipment in order to determine the best arrangement for the work as a whole, and shall supervise the installation of process instrumentation supplied under this Division.

5. Materials for miscellaneous mounting brackets and supports shall be of 316 stainless steel construction.
 6. Equipment installed in a hazardous area shall meet Class, Group, and Division as shown on the Drawings, to comply with the National Electrical Code.
 7. All instruments shall return to accurate measurement without manual resetting upon restoration of power after a power failure.
 8. All indicator readouts shall be linear in process units. Readouts of 0-100% shall not be acceptable (except for speed and valve position). Isolated outputs shall be provided for all transmitters.
 9. Unless otherwise specified, field instrument and power supply enclosures shall be 316 stainless steel, fiberglass or PVC coated copper-free cast aluminum NEMA 4X construction.
 10. Where separate elements and transmitters are required, they shall be fully matched, and unless otherwise noted, installed adjacent to the sensor. Special cables or equipment shall be supplied by the associated equipment manufacturer.
 11. Electronic equipment shall utilize printed circuitry and shall be coated (tropicalized) to prevent contamination by dust, moisture and fungus. Solid-state components shall be conservatively rated for long-term performance and dependability over ambient atmosphere fluctuations. Ambient conditions shall be -20 to 50 degrees C and 20 to 100 percent relative humidity, unless otherwise specified. Field mounted equipment and system components shall be designed for installation in dusty, humid, and corrosive service conditions.
 12. All devices furnished hereunder shall be heavy-duty type, designed for continuous industrial service. The system shall contain products of a single manufacturer, insofar as possible, and shall consist of equipment models that are currently in production.
 13. All non-loop-powered instruments and equipment shall be designed to operate on a 60 Hz AC power source at a nominal 117 V, plus or minus 10 percent, except where specifically noted. All regulators and power supplies required for compliance with the above shall be provided. Where equipment requires voltage regulation, constant voltage transformers shall be supplied.
 14. All analog transmitter and controller outputs shall be isolated, 4-20 milliamps into a load of 0-750 ohms, unless specifically noted otherwise. All switches shall have double-pole, double-throw contacts rated at a minimum of 600 VA, unless specified otherwise.
 15. Materials and equipment used shall be UL approved wherever such approved equipment and materials are available.
 16. Electrical work shall be performed in compliance with all applicable local codes and practices. Where the Contract Documents do not delineate precise installation procedures, API RP550 shall be used as a guide to installation procedures.
- B. Installation
1. Install the transmitter in an orientation where the sensing diaphragms are in a vertical plane.
 2. Allow sufficient clearance overhead for cover removal and around the transmitter to provide an access for necessary adjustments.
 3. Provide connections for drain and vent ports on the transmitter as per manufacturer's recommendations.
 4. Locate transmitters as close to the process pipe and pressure tap as practical with the lengths of meter lead piping/tubing kept to a minimum. Do not exceed 50 feet lead length.

- Locate the transmitter to minimize exposure to shock and vibration, or with proper vibration protection hardware and rugged frame. Select location to avoid any thermal shocks.
5. Slope horizontal leads a minimum of one inch per foot downward from the pressure taps for liquid and steam measurement.
 6. Slope horizontal leads at least one inch per foot upward from the pressure taps for gas measurement,
 7. Wrap Teflon tape on the external threads of screwed fittings.
 8. Install differential pressure transmitters for flow measurement to insure that vertical leads on the high and low pressure sides are of equal length so as not to create an error in the measured signal.
 9. Do not run horizontal meter leads in excess of six feet without supports.
 10. Locate output indicators allow easy access for viewing and service by operations personnel.
- C. AMMONIA GAS DETECTION SYSTEM (TYPE A1)
1. Sensor:
 - a. Sensor/Transmitter Requirements:
 - 1) Electrochemical Sensor/Transmitter: The sensor/transmitter must be capable of performing a full calibration by zero adjustment only.
 - 2) The sensor/transmitter must allow for a gas check without alternate calibration / gas check fittings or cap.
 - 3) Accuracy/Repeatability: +/- 2 ppm or +/- 10% of reading
 - 4) NEMA 4X or IP66 equivalent with gaskets.
 - b. Sensor/Transmitter Operating Requirements:
 - 1) Operating Voltage – The sensor/transmitter shall operate between 12-30 VDC, loop powered.
 - 2) The single PCB shall not require tools for installation or removal.
 - 3) The single PCB must be self-aligning in the enclosure.
 - 4) Set-up and start-up of the sensor/transmitter shall be so that the enclosure need not be opened during this process.
 - 5) Sensor/transmitter shall be factory calibrated, ready for use out of the box. A gas check is all that is required to ensure proper operation.
 - 6) Sensor/transmitter shall contain no pots, jumpers or switches.
 - 7) Sensor/transmitter output signal using 4-20 mA.
 - c. Sensor/Transmitter Display:
 - 1) There shall be a local display indicating the gas type being monitored and the concentration of gas present. The display will alternate between the gas type (1 second) and gas concentration (5 seconds). The display will be an integral part of the transmitter enclosure. The display will be visible from a minimum of 5 feet and will be present always, and will not require being turned on or off.
 - 2) Alarm levels will be adjustable by means touch buttons located on the display or Bluetooth connection.
 - d. Smart Sensor Technology:
 - 1) Sensors shall be contained in sensor modules mounted external to the main enclosure. All sensor modules shall have the capability of replacement while the unit is under power (hazardous areas) without the need for tools.

- 2) Sensor modules shall contain all relevant sensor information within the module. This information shall include sensor manufacturer date, gas type, gas range, calibration data, and default relay parameters.
- 3) Sensor module shall store all calibration data so that the module may be calibrated off site and installed in the field without the necessity of recalibration. The sensor module shall not require a battery or power source to store this data.
- e. LED and Relay Features:
 - 1) Sensor/transmitter shall have LED's viewable from 50 feet, minimum. The LED's shall operate as follows:
 - a) Solid green LED – normal operation (measure mode).
 - b) Solid red LED – fault condition.
 - c) Solid yellow LED – alarm condition.
 - 2) Sensor/transmitter shall have relays. Relays shall be rated at 5amps @ 30VDC, 5 amps @ 220VAC, single-pole, double-throw and consist of two for alarm levels and one for fault. All relay contact activation will be monitored. If the relay cannot activate for any reason, the trouble relay will change state. All relays shall be field selectable from the sensor display or a HART hand held communicator. Selectable features include:
 - a) Alarm level.
 - b) Latching / Non-latching.
 - c) Upscale / Downscale.
 - d) Normally-opened / Normally-closed.
 - e) Energized / De-energized.
- f. Other Features:
 - 1) Sensor/transmitter shall be furnished with optional 24VDC power supply from the manufacturer, MSA model 10053967. The power supply will be mounted remotely from the sensor.
 - 2) Sensor/transmitter will be capable of storing and displaying average, minimum and maximum gas concentrations over selected periods of time.
 - 3) The electrochemical sensors will give an indication of when the sensor is nearing the end of its useful life by means of the front panel LCD. This indication that the sensor is nearing its useful life will be based on the sensor output. It shall not be based on the time the sensor was in service.
 - 4) The transmitter/sensor can be located remote from a monitor/readout unit by up to 100 meters via 16 gauge wire.
- g. Sensing Element Warranty:
 - 1) All electrochemical and catalytic bead sensing elements (sensors) will have a minimum useful life of one year. The supplier will provide replacement sensors at no charge for any sensor that does not meet the minimum requirement.
- h. Sensor Enclosure Parameters:
 - 1) Explosion-proof Sensor/Transmitter: The sensor/transmitter will be in a 316 stainless steel enclosure suitable for location in Class I, Division 1 & 2, Groups A, B, C & D classified areas.
 - 2) The enclosure shall have a minimum of four entries, allowing for flexible mounting options for sensor, power, signal, and optional relay wiring.
 - 3) The enclosure shall offer a means to mount without using an entryway.
- i. Sensor/Transmitter Single Condulet Mounting:

- 1) Explosion-proof Sensor/Transmitter: sensor/transmitter will be mounted in a single conduit. The back portion of the enclosure shall be separate from the electronics, allowing for mounting and wiring of the unit without the electronics present.
 - j. Sensor/Transmitter Remote Sensor Mounting:
 - 1) The sensor portion of the sensor/transmitter unit will be capable of being able to be remotely mounted from the electronics and display. The separate sensor enclosure will be able to be mounted up to one hundred (100) feet from the main enclosure.
 - 2) Where remote mounted sensors are supplied, furnish manufacturer provided junction box for remote mounting.
 - 3) The sensor housing for the explosion-proof Gas Monitor will be in an enclosure suitable for location in Class I, Division 1, Groups A, B, C & D, Class II, Division 1, Groups E & F, Class III classified areas. 6.1.3 A two twisted pair cable will connect the sensor housing and the calibration electronics.
 - 4) A two twisted pair cable will connect the sensor housing and the calibration electronics.
 - 5) The readout portion of the sensor/transmitter shall have a display of the concentration of gas present. The display will be visible from a minimum of 50 feet and will be present at all times. It will not be required to be turned on or off.
 - k. Installation and mounting hardware:
 - 1) A mounting strap and/or bracket shall be used which mounts the sensor/transmitter to a pipe or similar structure. Coordinate mounting hardware with instrument stand. Adjust as necessary.
 - l. Approvals:
 - 1) The general-purpose monitor shall have UL approval.
 - 2) The explosion-proof monitor shall have Class I, Division 1 & 2, Groups A, B, C, and D; Class II, Division 1, Groups F & G; Class III approval.
 - 3) The explosion-proof Remote Sensor shall have Class I, Division 1 & 2, Groups A, B, C, and D, Class II, Division 1, Groups F & G; Class III approval.
 - m. The sensor/transmitter shall be MSA ULTIMA X5000, Det-Tronics GT-3000, Sensidyne SensAir, or Approved Equal.
- D. PRESSURE SWITCH (TYPE P1)
1. Pressure, vacuum, and differential pressure switches shall be single or dual action with an adjustable setpoint for the process requirement and/or as specified herein. Switches shall be diaphragm or piston operated and activated S.P.D.T. snap action switches on increasing or decreasing pressure. Minimum differential shall be less than 10 percent of the range. Deadband shall be adjustable. Allowable surge pressure shall be a minimum 1.5 times the range. Each pressure switch shall have visible scale.
 2. Pressure switches shall have a contact rating of 10 amperes at 120 volts AC. Pressure switches shall be rated NEMA 4X, unless specified otherwise. Switches scheduled to be located in NFPA 820 Classified areas shall be listed for installation in Class 1, Division 2 locations. Switches shall have a repeatable accuracy of 1 percent of range. Pressure switches shall be isolated from the process fluid by a diaphragm seal or an isolation ring in locations as shown on the Contract Drawings and/or as specified. Wetted parts materials shall be compatible with the process fluid or gas for corrosion resistance.

3. Pressure switches shall be Model 100 as manufactured by United Electric, or approved equal. Pressure switches for NFPA 820 Class 1, Division 2 locations shall be Model 120 as manufactured by United Electric, Rosemount or approved equal.
4. All conduits near (see drawings) the Ammonia panel and ammonia room areas shall be PVC coated RGS with explosion proof sealoffs for the conduits going to the PLC and the power panels from the ammonia leak detector and the ammonia Feed Control Panel
- E. PRESSURE GAUGE (TYPE P2)
 1. All gauges shall be designed in accordance with the ASME B40.1 entitled, "Gauges, Pressure, Indicating Dial Type - Elastic Element".
 2. All gauges shall be direct reading type. Snubbers shall be provided on all gauges. Gauge full-scale pressure range shall be selected such that the maximum operating pressure shall not exceed the approximately 75% of the full-scale range.
 3. Features
 - a. Mounting: ½" NPT, lower stem mount type
 - b. Accuracy: 0.5% full scale
 - c. Case: Solid front, black phenolic material
 - d. Dial: White background and black letters
 - e. Glass: Shatterproof
 - f. Blow-out protection: Back
 - g. Pressure element: Stainless steel bourdon tube
 - h. Movement: Stainless steel, Teflon coated pinion gear and segment
 - i. Gaskets: Buna-N
 4. Liquid-filled or equivalent mechanically-damped gauges shall be used if the gauges are installed with pumps, or where gauges are subjected to vibrations or pulsation. Filling fluid shall be silicone unless oxidizing agents such as sodium hypochlorite are present, where halocarbon shall be used.
 5. Gauge size shall be 2" for line sizes up to 3" and 4½" for line sizes of 4" or greater.
 6. Diaphragm seals and isolating ring seals shall be furnished in accordance with the requirements specified herein.
 7. The complete gauge assembly and appurtenances shall be fully assembled and tested prior to field mounting. A ½" isolation stainless steel ball valve shall be provided for each gauge assembly.
 8. Pressure and vacuum gauges shall be Ashcroft Duragauge Model 1279, Ametek-U.S. Gauge Division, H.O. Trerice Co., WIKA Instrument Corporation, or approved equal.
6. RESIDUAL CHLORINE ANALYZER
 1. The residual chlorine analyzer shall be capable of measuring both free and total chlorine. It shall use DPD colorimetric chemistry.
 2. Analyzer shall have a range of 0 to 5 mg/l free or total chlorine residual
 3. Analyzer shall be capable of adjusting cycle times from 60 seconds to 10 minutes. Analyzer shall be capable of providing a 4-20mA output signal for remote monitoring.
 4. Analyzer shall be housed in a NEMA 4X, IP66 rated ABS plastic enclosure.
 5. A 60-day supply of free and total chlorine reagents (compatible with the analyzer) shall be supplied with the analyzer.
 6. Analyzer shall be an online CL17 chlorine analyzer as manufactured by Hach Company.
7. Monochloramine Analyzer

1. Monochloramine analyzer shall be capable of measuring total ammonia, monochloramine and free ammonia.
2. Unit shall consist of a microprocessor controlled analyzer designed to continually monitor concentration of free and total ammonia and monochloramine in a sample stream
3. The analyzer shall have the capability to intake grab samples for internal measurement and dispense grab samples for external verification
4. Analyzer must operate using 110-240VAC and have a colored LCD screen with measurements recent calibration information, reagent status and Prognosis indicators.
5. Analyzer shall be Hach 5500sc Ammonia Monochloramine Analyzer

2.9 CONTROL STRATEGIES

- A. The control strategies are written descriptions of the programming required to implement regulatory and sequential control of the unit processes. Control strategies shall fully reside in the memory of the designated PLC. Coefficients pertaining to control strategies shall be modifiable through the operator interface in the monitoring / control mode.
- B. The contractor/software engineer shall include a minimum additional 16 hours on-site to fine tune control systems and make minor software modifications in order to resolve any logic discrepancies encountered during start-up, and supply the Village with a Village accepted, complete and functional control system. This shall be part of the bid package with no additional cost to the Village. The contractor/software engineer shall not use these additional hours for troubleshooting of the PLC program and need approval from the Village for using the additional programming time.
- C. Ammonia Feed System
 1. Anhydrous ammonia is dissolved into the treated water stream to provide monochloramine residual in the distribution system.
 2. There is one dosage location that will utilize flow from the WTP as a control.
 3. The Ammonia Feed Panels are package system(s) complete with instruments, indicators and valves. The plant control logic monitors parameters of the system and controls the feed solenoid valve(s) and feed controller valve position(s) in response to treatment process flow measurements. The system consists of the following:
 - a. Anhydrous Ammonia Bulk Storage Tank with local level indicator and pressure gauge
 - b. One panel with valves, flow controllers, solenoid valves, pressure regulators
 - c. Ammonia feed control panel with 4-channel flow indicating transmitter and selector switches for controlling each of the feed panel solenoid valves
 - d. Low Ammonia Feed Pressure switch to alarm operations via plant control system
 - e. Ammonia gas detector at ammonia feed panels to alarm of hazardous gas concentrations at the ammonia feed panels
 4. Ammonia Feed Valve Local Manual Control:

Local Manual Control of the ammonia feed system is located at the Ammonia Feed Control Panel. There is an OPEN-CLOSE-REMOTE selector switch for each ammonia solenoid valve. In the CLOSE position, the solenoid valve is closed and no ammonia gas flows. In the OPEN position, the solenoid valve is open and flow rate is adjusted by the operator at the ammonia feed control panel, via the 4-channel flow transmitter. In the REMOTE position, the valve is controlled by the plant control system as described below.
 5. Ammonia Feed Remote Automatic Control:

When the OPEN-CLOSE-REMOTE valve is in the REMOTE position, the operator selects MANUAL or AUTO at the SCADA HMI. In MANUAL, the operator manually opens and closes the valves via the SCADA HMI. In AUTO, the control logic monitors the treatment process flow rate. When flow is detected, the control logic shall open the solenoid valves and modulate the position of the flow control valve proportionately to the flow rate according to the following formula:

$$\text{Pounds per Day} = 8.345 \times \text{Product Flow (MGD)} \times \text{Dosage Set Point (mg/L)} \times \text{Ratio}$$

A ratio adjustment shall be provided on the SCADA HMI for operators to manually trim ammonia feed rates. There shall be a unique ratio adjustment selection for each feed panel.

6. If any equipment IN REMOTE status indications are not available and the equipment is requested by the automatic control logic, the control system shall alert the operator on the SCADA HMI.
7. The Ammonia feed system is equipped with an ammonia gas detector and alarm panel that will locally sound a horn and trigger a flashing light, as well as alert the operator on the SCADA HMI, when a leak is detected.
8. The control logic shall monitor the ammonia supply low pressure switch and alert the operator when a low feed pressure condition is present.
9. Plant control logic and SCADA HMI monitors the following Discrete Signals:
 - a. Ammonia Gas Leak Alarm
 - b. Ammonia Feed Solenoid Valve No. 1 In Remote Status
10. Plant control logic and SCADA HMI monitors to following Analog Signals:
 - a. Ammonia Gas Detector (PPM)
 - b. Ammonia Feed Controller No. 1 Flow

2.10 PROGRAMMING SOFTWARE

No new software is required for this project. The Village's existing Main WTP SCADA HMI system is VTSCADA and the PLC utilizes Compact Logix and Micro Logix from Allen Bradley. At the RL Pratt WTP the existing VT SCADA is also being upgraded to a larger I/O count license, and new Compact Logix and MicroLogix PLC hardware from Allen Bradley is being installed under a separate SCADA upgrade project.

PART 3 - EXECUTION

3.1 INSTALLATION, TESTING, START-UP AND INSTRUCTION

A. GENERAL:

Under the supervision of the Single I&C supplier, all systems specified in this Section shall be installed, connected, and tested, and in coordination with the Village, shall be started to place the processes in operation. This shall include final calibration in concert with equipment specified elsewhere in these Specifications, including pumps, valves, as well as certain existing equipment.

B. Testing

All systems shall be exercised through operational tests in the presence of the Village in order to demonstrate achievement of the specified performance. Operational tests depend upon

completion of work specified elsewhere in these Specifications. The scheduling of tests shall be coordinated by the Contractor among all parties involved so that the tests may proceed without delays or disruption by incomplete work. Results of such testing shall be documents on approved test forms submitted to the Village after successful completion of testing. Refer to paragraph 3.02 entitled SUPPLEMENTS for example test forms.

C. INSTALLATION AND CONNECTION:

1. The Contractor shall install and connect all field-mounted components and assemblies under the criteria imposed in Part 1, 1.3, herein. The installation personnel shall be provided with a final reviewed copy of the Shop Drawings and data.
2. The field representative of the Single I&C supplier shall coordinate all work required to interface the new equipment and control devices with the existing equipment, including all required modifications to existing equipment and related devices.

D. CALIBRATION

1. All instruments and systems shall be calibrated after installation, in conformance with the component manufacturer's written instructions. This shall provide that those components having adjustable features are set carefully for the specific conditions and applications of this installation, and that the components and/or systems are within the specified limits of accuracy. Defective elements which cannot achieve proper calibration or accuracy, either individually or within a system, shall be replaced. This calibration work shall be accomplished by the technical field representatives of the I&C system supplier who shall certify in writing to the Contractor that for each loop or system all calibrations have been made and that all instruments are ready to operate. See section 3.2 supplements for sample "Instrumentation Calibration Sheet".
2. Proof of Conformance - The burden of proof of conformance to specified accuracy and performance is on the Contractor using its designated Single I&C supplier. The Contractor's designer shall supply necessary test equipment and technical personnel if called upon to prove accuracy and/or performance, at no separate additional cost to the Village, wherever reasonable doubt or evidence of malfunction or poor performance may appear within the guarantee period.

E. PRE-COMMISSIONING

1. The I&C Supplier shall test each loop (discrete and analog) to determine if it is functioning correctly. The I&C Supplier shall furnish a loop sheet for each loop to be tested. The loop sheet shall represent the actual "as-built" condition of the loop. The I&C Supplier shall perform a field functional loop test which shall be witnessed by the Village and Village. If the loop fails the functional test, the I&C Supplier shall coordinate repairs for the Contractor to correct whatever is wrong with the loop. The I&C Supplier shall retest the loop until it is approved.
2. Each loop shall be tested and approved by the Village until all loops have been approved.

F. Start-up and Instruction

When all systems are assessed by the Contractor to have been successfully carried through complete operational tests with a minimum of simulation, and the Village concurs in this assessment, plant start-up by the Village's operating personnel can follow. Start-up shall comply with the Testing and Startup requirements of Section 11512. Prior to start-up, operating and maintenance personnel shall be instructed in the functions and operation of each system and shall be shown the various adjustable and set point features which may require readjustment, resetting or checking, re-calibration or maintenance by them from time to time.

Instruction shall be given by qualified persons who have been made familiar in advance with the systems.

G. Modifications to Existing Facilities

The Contractor shall make all modifications to existing equipment and control devices which are required to successfully install and integrate all new instrumentation equipment. All costs for any required modification and rehabilitation effort shall be included in the Contractor's original bid amount and no additional payment shall be allowed.

H. Plant Shutdowns

The Single I&C supplier shall carefully examine all work to be performed relative to existing I&C equipment and the installation of new equipment and control devices. Work shall be scheduled to minimize required plant shutdown times.

I. Coordination with Other Concurrent Projects

The single I&C supplier shall coordinate extensively with other I&C suppliers of concurrent projects. Some of the equipment shown in this contract as existing might be installed while this contract is underway.

3.2 SUPPLEMENTS

A. Supplements listed below, following "END OF SECTION" are part of this Specification.

1. Loop Status Report
2. Functional Acceptance Test Sheet
3. Instrument Calibration Sheet

- END OF SECTION -

LOOP STATUS REPORT

PROJECT NAME: _____
PROJECT NO.: _____

COMPONENT STATUS (Date & Initial each item when complete)

TAG NO.	DELIVERED	TAG ID CHECK	INSTALLATION	TERMINATIO N WIRING	TERMINATIO N TUBING	CALIBRATED
REMARKS				LOOP READY FOR START-UP BY DATE		

FUNCTIONAL ACCEPTANCE TEST SHEET

PROJECT NAME: _____

PROJECT NO.: _____

Functional Requirements and Summary of Components:

Verification of Loop Status Report and
Instrument and Valve Calibration Sheets

By: _____

Date: _____

Demonstration Test(S): For Each Functional Requirement of The Loop:

Required Performance:

- (a) List and number each requirement
- (b) Briefly describe the demonstration
- (c) Cite the results that will verify the test
- (d) Provide spaces for initial and date of witness

Performed By:

Witnessed By:

Completed Date:

Loop Accepted By (Village)

By:

Date:

Check for remarks on reverse side

Loop No.

INSTRUMENTATION CALIBRATION SHEET

COMPONENT				MANUFACTURER:				PROJECT																																																																																																																																					
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APPENDIX 1 – PERMIT 138287-211-WC

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Ron DeSantis
Governor

Joseph A. Ladapo, MD, PhD
State Surgeon General

Vision: To be the Healthiest State in the Nation

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

**In the matter of an
Application for Permit by:**

Paul Ward
Assistant Utility Director
Village of Palm Springs Utilities
360 Davis Road
Palm Springs, FL 33461
pward@vpsfl.org

DEP FILE: 138287-211-WC
County: Palm Beach
Project: VPS RL Pratt WTP & VPS Main
WTP Ammonia System Improvements

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number **138287-211-WC** for the construction of improvements to the ammonia feed system of a community water treatment facility, issued pursuant to 403.087(1), Florida Statutes

NOTICE OF RIGHTS

This action is final and effective unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's

Florida Department of Health, Palm Beach County
Division of Environmental Public Health
P.O. Box 20, 800 Clematis Street, West Palm Beach, FL 33402
PHONE: 561-837-6900 • FAX: 561-837-5294
FloridaHealth.gov / palmbeach.floridhealth.gov



Accredited Health Department
Public Health Accreditation Board

representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; A statement of when and how the petitioner received notice of the agency decision;

- (c) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (d) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (e) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (f) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 4052 Bald Cypress Way, Bin A-02, Tallahassee, Florida 32399, or via facsimile at 850-413-8743, or hand delivered to Agency Clerk, Florida Department of Health 2585 Merchants Row Blvd., Prather Building Tallahassee, Florida or electronically filed https://agency_clerk-fdh.mycusthelp.com/WEBAPP/rs/supporthome.aspx?&lp=3 . Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under [Sections 120.569](#) and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver will not apply to persons who have not received written notice of this action.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 4052 Bald Cypress Way, Bin A-02, Tallahassee, Florida 32399, or via facsimile at 850-413-8743 before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (4052 Bald Cypress Way, Bin A-02) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

Executed in the City of West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT OF HEALTH
PALM BEACH COUNTY



Jorge R. Patino, P.E.
Environmental Administrator
Division of Environmental Public Health
800 Clematis Street, West Palm Beach, FL 33401
(561) 837-5900

LM/JH/JP

Enclosures: Permit File No.138287-211-WC

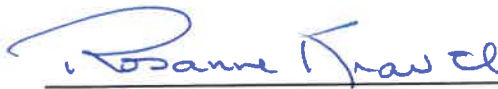
CERTIFICATION OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Permit Issuance and all copies were mailed/electronically transmitted before the close of business on May 31, 2024 to those persons listed.

Clerk Stamp

FILING AND ACKNOWLEDGEMENT

Filed, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

5-31-24

Date

Copies Furnished to:
Engineer-of-Record: Nicholas Black, P.E.
Florida DEP: Norva Blandin - Electronic Copy

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Ron DeSantis
Governor

Joseph A. Ladapo, MD, PhD
State Surgeon General

Vision: To be the Healthiest State in the Nation

STATE OF FLORIDA
APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

PERMITTEE:

Paul Ward
Assistant Utility Director
Village of Palm Springs Utilities
360 Davis Road
Palm Springs, FL 33461
ward@vpsfl.org

PWS ID NUMBER: 4501058

PERMIT NUMBER: 138287-211-WC

DATE OF ISSUE: May 31, 2024

EXPIRATION DATE: May 30, 2029

COUNTY: Palm Beach

PROJECT: VPS RL Pratt WTP & VPS Main WTP
Ammonia System Improvements

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-550, 62-555 & 62-560. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

Construct: Replacement of the existing ammonia feed system at the R.L. Pratt and Main Water Treatment Plants, each with the following:

- New Automated Ammonia Feed panel including a thermal mass flow meter, glass tube flow variable area rotameters, gas dryer filters, purge ports, drip legs, valves, appurtenances and backpressure valves upstream of a new injection port.
- New monochloramine analyzers with supply and drain piping and a new sample pump at the Main WTP, located downstream of injection ports.
- New ammonia gas detectors, MSA Ultima X-5000 Gas Monitor

In Accordance With: Application Form DEP 62-555.900(1), Engineering Reports and Specifications, RL Pratt WTP Engineering Sheets G-1, C-1 through C-6, D-1, D-2, I-1, I-2 and E-1 through E-8 and Main WTP Engineering Sheets G-1, C-1 through C-6, D-1, D-2, I-1, I-2 and E-1 through E-8 received May 1, 2024

Located: Village of Palm Springs RL Pratt and Main Water Treatment Plants

To Serve: Existing and future connections.

Subject To: General Conditions 1 – 15, Regulatory Conditions 1 – 11, Construction Standards 1 – 8, Operational Requirements 1 – 5, Monitoring Provisions 1- 2 and Clearance Requirements 1 – 3.

Florida Department of Health, Palm Beach County
Division of Environmental Public Health
P.O. Box 28, 800 Clematis Street, West Palm Beach, FL 33402
PHONE: 681-837-6800 • FAX: 681-837-5294
FloridaHealth.gov / palmbeach.floridahealth.gov



Accredited Health Department
Public Health Accreditation Board

A. General Conditions

The permittee shall be aware of and operate under the Permit Conditions below. These applicable conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes. [F.A.C. Rule 62-555.533(1)]

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these *conditions*.
2. *This* permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times (reasonable time may depend on the nature of the concern being investigated), access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (BACT)
 - b. Determination of Prevention of Significant Deterioration (PSD)
 - c. Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
 - d. Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - i. the date, exact place, and time of sampling or measurements;
 - ii. the person responsible for performing the sampling or measurements;
 - iii. the dates analyses were performed;
 - iv. the person responsible for performing the analyses;
 - v. the analytical techniques or methods used;
 - vi. the results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

B. Regulatory Section

1. All construction must be in accordance with this permit. Before commencing work on project changes for which a construction permit modification is required per 62-555.536(1), the permittee shall submit to the Department a written request for a permit modification. Each such request shall be accompanied by one copy of a revised construction permit application, the proper processing fee and one copy of either a revised preliminary design report or revised drawings, specifications and design data. [F.A.C. Rule 62-555.536].
2. Permitted construction or alteration of public water supply systems must be supervised during construction by a professional engineer registered in the State of Florida if the project was designed under the responsible charge of a professional engineer licensed in the State of Florida. The permittee must retain the service of a professional engineer registered in the State of Florida to observe that construction of the project is in accordance with the engineering plans and specifications as submitted in support of the application for this permit. [F.A.C. Rule 62-555.520(3)].
3. If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoe remains, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at 850.245.6333 or 800.847.7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization

from the Division of Historical Resources and the permitting agency. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

4. If delays will cause project completion to extend beyond the expiration date of this permit, the permittee shall submit to the Department a request to extend the expiration date of this permit including the appropriate processing fee. This request shall specify the reasons for the delay and shall be submitted to the Department for approval prior to the expiration date of this permit. Note that no specific construction permit shall be extended so as to remain in effect longer than five years. [F.A.C. Rule 62-555.536(4)].
5. In accordance with General Condition #11 of this permit, this permit is transferable only upon Department approval. Persons proposing to transfer this permit must apply jointly for a transfer of the permit within 30 days after the sale or legal transfer of ownership of the permitted project that has not been cleared for service by the Department using form, 62-555.900(8), Application for Transfer of a PWS Construction Permit along with the appropriate fee. [F.A.C. Rule 62-555.536(5)]
6. This permit satisfies Drinking Water permitting requirements only and does not authorize construction or operation of this facility prior to obtaining all other necessary permits from other program areas within the Department, or required permits from other state, federal, or local agencies.
7. This permit is for CONSTRUCTION ONLY of the distribution system project. This permit shall not infer that the clearance necessary for connection will be granted. Any such clearance shall be granted only when the connection point has been permitted and cleared for use by the Department and the public water system to which the water main extension will be connected, has the capacity necessary to meet the design water demands of all customers to be served by the water main extension. Partial clearance may be granted, if required.
8. If gasoline contamination is found at the construction site, work shall be stopped and the proper authorities notified. With the approval of the Department, ductile iron pipe and fittings, and solvent resistant gaskets materials shall be used in the contaminated area. The ductile pipe shall be used in the contaminated area. The ductile iron pipe shall extend 100 feet beyond any solvent noted. Any contaminated soil that is excavated shall be placed on an impermeable mat, covered with waterproof covering, and held for disposal. If the site cannot be properly cleaned, then consultation with the Department is necessary prior to continuing with the project construction.
9. This permit does not constitute approval of construction on jurisdictional wetland areas; therefore, such approval must be obtained separately from the Water Management District or from DEP ERP Section, as applicable, Permittee shall provide a copy of the permit approval to the Department if water main installation involves activities on wetlands.
10. Suppliers of water shall notify the appropriate DEP District Office or ACHD and affected water customers by no later than the previous business day before initiating any planned permanent or temporary conversion from free chlorine to chloramines or vice versa for disinfection. [F.A.C. Rule 62-555.350(10)(c)]
11. Permittee shall ensure that the well and drinking water treatment facilities will be protected to prevent tampering, vandalism, and sabotage as required by Rule 62-555.315(1) & 62-555.320(5), F.A.C.

C. Construction Standards

1. All products, including paints, which shall come into contact with potable water, either directly or indirectly, shall conform with National Sanitation Foundation (NSF) International, Water Chemicals Codex, Food Chemicals Codex, American Water Works Association (AWWA) Standards and the Food and Drug Administration, as provided in Rule 62-555.320(3), F.A.C.
2. Water supply facilities, including mains, pipe, fittings, valves, fire hydrants and other materials shall be installed in accordance with the latest applicable AWWA Standards and Department rules and regulations. The system shall be pressure and leak tested in accordance with AWWA Standard C600 C603, or C605, as applicable, and disinfected in accordance with AWWA Standard C651-653, as well as in accordance with Rule 62-555.340, F.A.C.
3. The installation or repairs of any public water system, or any plumbing in residential or nonresidential facilities providing water for human consumption, which is connected to a public water system shall be lead free in accordance with Rule 62-555.322, F.A.C.
4. When any existing asbestos cement (AC) pipes are replaced under this permit, the permittee shall do so in accordance with the applicable rules of Federal Asbestos Regulation and Florida DEP requirements. **For specific requirements applicable to AC pipes, the permittee should contact the Air and Waste Management section at DOH Palm Beach County prior to commencing any such activities at (561) 837-5900 #3. Please be aware that a notification is required to be submitted to the Department for a regulated project**
5. Setback distances between potable water wells and sanitary hazards shall be in accordance with 62-555.312, F.A.C. Reclaimed water land application areas must not be located within the setback distance from potable water supply wells established in Chapter 62-610, F.A.C.
6. Permittee shall maintain vertical clearance and horizontal separation between water mains and sanitary sewers, storm sewers, etc. unless approved otherwise by the Department, as provided in Rule 62-555.314, F.A.C., and Section 8.6 of *Recommended Standards for Water Works*, a manual adopted by reference in Rule 62-555.330(3), F.A.C.
7. The new or altered aboveground piping at the drinking water treatment plant shall be color coded and labeled as recommended in Section 2.14 of "Recommended Standards for Water Works, 1997 Edition". [F.A.C. Rule 62-555.320(10)]
8. Permittee shall ensure that there shall be no cross-connection with any non-potable water source in accordance with Rule 62-555.360, F.A.C.

D. Operational Requirements

1. The supplier of water shall operate and maintain the public water system so as to comply with applicable standards in F.A.C. Rule 62-550 and 62-555.350.
2. The permittee shall provide an operation and maintenance manual for the new or altered treatment facilities to fulfill the requirements under subsection 62-555.350(13), F.A.C. The manual shall contain operation and control procedures, and preventative maintenance and repair procedures, for all plant equipment and shall be made available for reference at the plant or at a convenient location near the plant. Bound and indexed equipment manufacturer manuals shall be considered sufficient to meet the requirements of the subsection.
3. The permittee shall submit a monthly operations report (MOR) DEP Form 62-555.900, to the Department no later than the tenth of each succeeding month.
4. The permittee shall have complete record drawings produced for the project in accordance with Rule 62-555.530(4), F.A.C.
5. The permittee or suppliers of water shall telephone the State Warning Point (SWP), at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system in accordance with the F.A.C. Rule 62-555.350(10).

E. Monitoring Provisions

1. Permittee shall follow the guidelines of Chapters 62-550, 62-555, and 62-560, F.A.C., regarding public drinking water system standards, monitoring, reporting, permitting, construction, and operation.

This facility is a Community Water System as defined in F.A.C. Rule 62-550.200(12) and shall comply with the applicable chemical, radiological, lead and copper, and bacteriological monitoring requirements of F.A.C. Rule 62-550. Such requirements shall be initiated within the quarter that the water treatment facility is placed into service (i.e. January—March or April—June, the preceding are examples of quarters) and the results submitted to the Department.

2. The water treatment plant shall maintain throughout the distribution system a minimum combined chlorine residual of 0.6 mg/l or its equivalent. A minimum system pressure of 20 psi must be maintained throughout the system. Also, safety equipment shall be provided and located outside of chlorine room.

F. Clearance Requirements

1. The permittee must instruct the engineer of record to request system clearance from the Department within sixty (60) days of completion of construction, testing and disinfecting the system. Bacteriological test results shall be considered unacceptable if the test were completed more than 60 days before the Department received the results. [F.A.C. Rule 62-555.340(2)(c)]

Permitted construction or alteration of a public water system may not be placed into service until a letter of clearance has been issued by this Department. [F.A.C. Rule 62-555.345]

2. Prior to placing this project into service, Permittee shall submit, at a minimum, all of the following to the Department for evaluation and approval for operation, as provided in Rules 62-555.340 and 62-555.345, F.A.C.:
 - a. the engineer's *Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components Into Operation* {DEP Form 62-555.900(9)};
 - b. certified record drawings, if there are any changes noted for the permitted project.
 - c. two consecutive days of satisfactory bacteriological analytical results (see paragraph 3 below).
 - d. copy of a satisfactory pressure test of the process piping performed in accordance with AWWA Standards. [F.A.C. Rule 62-555.320(21)(a)(1)]

In order to facilitate the issuance of a letter of clearance, the Department requests that all of the above information be submitted as one package.

3. The new facilities shall be cleaned, disinfected, and bacteriologically cleared in accordance with Chapter 62-555, F.A.C. The bacteriological clearance data representative of the storage tank (two samples on consecutive days), the well discharge piping and distribution system (in accordance with the instructions for Bacteriological Sampling Locations shown below) and the untreated well water (two samples per day for 5 consecutive days collected at least six hours apart for each of the two wells) shall be submitted to the Department with the engineer's certification of construction completion. [Section 62-555.340 and 62-555.315(6)(b), F.A.C.]

Bacteriological Sampling Locations: Copies of satisfactory bacteriological analyses taken from locations within the distribution system or water main extension to be cleared, in accordance with Rules 62-555.315 (6), 62-555.340 and 62-555.330, F.A.C. and American Water Works Association (AWWA) Standard C 651-92 as follows:

- *The endpoint of the proposed addition;*
- *Any water lines branching off a main extension;*
- *Every 1,200 feet of water main;*
- *Each location shall be sampled on two separate days (at least 6 hours apart) with sample point locations and chlorine residual readings **clearly indicated** on the report and/or drawings.*
- *Bacteriological sample results will be considered unacceptable if the tests were completed more than 60 days before the Department receives the results.*

PERMITTEE: Paul Ward, Assistant Utility Director
Village of Palm Springs

Certification/File No.: 138287-211-WC

Issued This 31 Day of May, 2024

**STATE OF FLORIDA DEPARTMENT OF HEALTH
PALM BEACH COUNTY**

 for Dr. Gunta

Jyothi Gunta, MD, MPH
Director



APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

See page 4 for instructions.

I. General Project Information

A. Name of Project: VPS RL Pratt WTP & VPS Main WTP Ammonia System Improvements

B. Description of Project and Its Purpose:

The ammonia system improvements include replacement of the existing manually operated anhydrous ammonia feed system and piping with an automated ammonia feed system using thermal mass flow controllers and a chloramination analyzer downstream of the chemical injection point.

The purpose of the ammonia feed system improvements is to improve operational control of the ammonia feed system using automated thermal mass flow controllers and the data from the chloramine analyzer to automatically regulate the flow of anhydrous ammonia.

C. Does project create a "new system" as described under subsection 62-555.525(1), F.A.C.? ☐ Yes, and a completed copy of Form 62-555.900(20), New Water System Capacity Development Financial and Managerial Operations Plan, is attached. ☒ No.

D. Location of Project

1. County Where Project Located: Palm Beach County

2. Description of Project Location:

The Village of Palm Springs has two (2) water treatment plants where these improvements are taking place. The first is called RL Pratt WTP located at 5618 Basil Dr, West Palm Beach, FL 33415. The second is called Main WTP located at 360 Davis Rd, Palm Springs, FL 33461.

3. Latitude and Longitude of Each New Treatment Plant and Each New Raw Water Source (attach additional sheets if necessary):

Name of New Treatment Plant or Raw Water Source	Latitude	Longitude
N/A	° ' "N	° ' "W
	° ' "N	° ' "W
	° ' "N	° ' "W
	° ' "N	° ' "W
	° ' "N	° ' "W

E. Estimate of Cost to Construct Project: \$850,000

F. Estimate of Dates for Starting and Completing Construction of Project: Start 6/24 and complete 3/25

G. Applicant

PWS/Company Name: <u>Village of Palm Springs</u>		PWS Identification No.: <u>*4501058</u>	
PWS Type: * ☒ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive			
Contact Person: <u>Paul Ward</u>		Contact Person's Title: <u>Assistant Utilities Director</u>	
Contact Person's Mailing Address: <u>360 Davis Rd</u>			
City: <u>Palm Springs</u>		State: <u>Florida</u>	Zip Code: <u>33461</u>
Contact Person's Telephone Number: <u>561-584-8200 Ext. 8716</u>		Contact Person's Fax Number: <u>561-601-5780</u>	
Contact Person's E-Mail Address: <u>Pward@vpsfl.org</u>			

* This information is required only if the applicant is a public water system (PWS).

H. Public Water System (PWS) Supplying Water to Project

PWS Name: <u>Village of Palm Springs</u>		PWS Identification No.: <u>4501058</u>	
PWS Type: ☒ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive			
PWS Owner: <u>Village of Palm Springs</u>			
Contact Person: <u>Paul Ward</u>		Contact Person's Title: <u>Assistant Utilities Director</u>	
Contact Person's Mailing Address: <u>360 Davis Rd</u>			
City: <u>Palm Springs</u>		State: <u>Florida</u>	Zip Code: <u>33461</u>
Contact Person's Telephone Number: <u>561-584-8200 Ext. 8716</u>		Contact Person's Fax Number: <u>561-601-5780</u>	
Contact Person's E-Mail Address: <u>Pward@vpsfl.org</u>			

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

Project Name: VPS RL Pratt WTP & VPS Main WTP Ammonia System Improvements

Applicant: Village of Palm Springs

I. Public Water System (PWS) that Will Own Project after It Is Placed into Permanent Operation

PWS Name: Village of Palm Springs		PWS Identification No.: *4501058		
PWS Type: *	☒ Community	☐ Non-Transient Non-Community	☐ Transient Non-Community	☐ Consecutive
PWS Owner: Village of Palm Springs				
Contact Person: Paul Ward		Contact Person's Title: Assistant Utilities Director		
Contact Person's Mailing Address: 360 Davis Rd				
City: Palm Springs		State: Florida	Zip Code: 33461	
Contact Person's Telephone Number: 561-791-4008 Ext. 8716		Contact Person's Fax Number: 561-601-5780		
Contact Person's E-Mail Address: Pward@vpsfl.org				

* This information is required only if the owner/operator is an existing PWS.

J. Professional Engineer(s) or Other Person(s) in Responsible Charge of Designing Project*

Company Name: Kimley-Horn & Associates		
Designer(s): Nicholas P.O Black, P.E.	Title(s) of Designer(s): Project Engineer	
Qualifications of Designer(s):		
☒ Professional Engineer(s) Licensed in Florida – License Number(s): 84908		
☐ Public Officer(s) Employed by State, County, Municipal, or Other Governmental Unit of State†		
☐ Plumbing Contractor(s) Licensed in Florida – License Number(s): ^		
Mailing Address of Designer(s): 1920 Wekiva Way, Suite 200		
City: West Palm Beach	State: Florida	Zip Code: 33411
Telephone Number of Designer(s): 561-421-1979	Fax Number of Designer(s): N/A	
E-Mail Address(es) of Designer(s): nick.black@kimley-horn.com		

* Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers licensed in Florida.

† Attach a detailed construction cost estimate showing that the cost to construct this project is \$10,000 or less.

^ Attach documentation showing that this project will be installed by the plumbing contractor(s) designing this project, documentation showing that this project involves a public water system serving a single property and fewer than 250 fixture units, and a detailed construction cost estimate showing that the cost to construct this project is \$50,000 or less.

II. Certifications

A. Certification by Applicant

I am duly authorized to sign this application on behalf of the applicant identified in Part I.G of this application. I certify that, to the best of my knowledge and belief, this project complies with Chapter 62-555, F.A.C., and provides assurance of compliance with Chapter 62-550, F.A.C. I also certify that construction of this project has not begun yet.

	04/02/24	Paul Ward	Assistant Utilities Director
Signature and Date		Printed or Typed Name	Title

B. Certification by PWS Supplying Water to Project

I am duly authorized to sign this application on behalf of the PWS identified in Part I.H of this application. I certify that said PWS will supply the water necessary to meet the design water demands for this project. I certify that, to the best of my knowledge and belief, said PWS's connection to this project will not cause said PWS to be, or contribute to said PWS being, in noncompliance with Chapter 62-550 or 62-555, F.A.C. I also certify that said PWS has reviewed the preliminary design report or drawings, specifications, and design data for this project and that said PWS considers the connection(s) between this project and said PWS acceptable as designed.

- Name(s) of Water Treatment Plant(s) to Which this Project Will Be Connected: Village of Palm Springs RL Pratt Water Treatment Plant and Village of Palm Springs Main Water Treatment Plant
- Total Permitted Maximum Day Operating Capacity of Plant(s), gpd: 10,000,000
- Total Maximum Day Flow at Plant(s) as Recorded on Monthly Operating Reports During Past 12 Months, gpd: 5,770,000 (2/23/2024)

	04/02/24	Paul Ward	Assistant Utilities Director
Signature and Date		Printed or Typed Name	Title

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

Project Name: VPS RL Pratt WTP & VPS Main WTP Ammonia System Improvements	Applicant: Village of Palm Springs
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C. Certification by PWS that Will Own Project after It Is Placed into Permanent Operation

I am duly authorized to sign this application on behalf of the PWS identified in Part I.I of this application. I certify that said PWS will own this project after it is placed into permanent operation. I also certify that said PWS has reviewed the preliminary design report or drawings, specifications, and design data for this project and that said PWS considers this project acceptable as designed.

 Signature and Date	04/02/24 Printed or Typed Name	Paul Ward Assistant Utilities Director Title
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D. Certification by Professional Engineer(s) in Responsible Charge of Designing Project*

I, the undersigned professional engineer licensed in Florida, am in responsible charge of preparing the preliminary design report or drawings, specifications, and design data for this project. I certify that, to the best of my knowledge and belief, the design of this project complies with Chapter 62-555, F.A.C., and provides assurance of compliance with Chapter 62-550, F.A.C.

Signature, Seal, and Date: Affix Seal	Signature, Seal, and Date: Affix Seal
Printed/Typed Name: Nicholas P. Oleisky Black	Printed/Typed Name: Michael Guida
License Number: 84908	License Number: 60755
Portion of Engineering Document(s) for Which Responsible: Civil, Mechanical, Process	Portion of Engineering Document(s) for Which Responsible: Electrical, I&C

Signature, Seal, and Date: Affix Seal	Signature, Seal, and Date: Affix Seal
Printed/Typed Name:	Printed/Typed Name:
License Number:	License Number:
Portion of Engineering Document(s) for Which Responsible:	Portion of Engineering Document(s) for Which Responsible:

** Except as noted in paragraphs 62-555.520(3) (a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers (PEs) licensed in Florida. If this project is being designed under the responsible charge of one or more PEs licensed in Florida, Part II.D of this application shall be completed by the PE(s) in responsible charge. If this project is not being designed under the responsible charge of one or more PEs licensed in Florida, Part II.D does not have to be completed.*

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

INSTRUCTIONS: This application shall be completed and submitted by persons proposing to construct or alter public water system components unless such proposed construction or alteration is permitted under the Department of Environmental Protection's (DEP's) "General Permit for Construction of Water Main Extensions for Public Water Systems," in which case Form 62-555.900(7) is to be completed and submitted, or under the DEP's "General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium Public Water Systems," in which case Form 62-555.900(18) is to be completed and submitted. Complete and submit one copy of this application to the appropriate DEP District Office or Approved County Health Department (ACHD) along with payment of the proper application processing fee and one copy of the following information:

- either a preliminary design report or drawings, specifications, and design data (the preliminary design report or drawings, specifications, and design data shall contain all pertinent information required under subsection 62-555.520(4), F.A.C.); and
- the Florida Public Service Commission (FPSC) certificate of authorization to provide water service if the project involves construction of a new public water system subject to the jurisdiction of the FPSC.

All information provided on this application shall be typed or printed in ink. Application processing fees are listed in paragraph 62-4.050(4) (n), F.A.C. Checks for application processing fees shall be made payable to the Department of Environmental Protection or to the appropriate ACHD. Preliminary design reports, drawings, specifications, and design data prepared under the responsible charge of one or more professional engineers licensed in Florida shall be signed, sealed, and dated by the professional engineer(s) in responsible charge. NOTE THAT A SEPARATE APPLICATION AND A SEPARATE APPLICATION PROCESSING FEE ARE REQUIRED FOR EACH NON-CONTIGUOUS PROJECT.*

** Non-contiguous projects are projects that are neither interconnected nor located nearby one another (i.e., on the same site, on adjacent streets, or in the same neighborhood).*



Village of Palm Springs

226 Cypress Lane • Palm Springs, Florida 33461-1699

561-584-8200 • www.vpsfl.org

**ITB #2024B-014
MAIN AND PRATT NH3 UPGRADE
Addendum No. 1
August 19, 2024**

BIDS DUE: 2:00 p.m., Local Time, 08/29/2024

TO ALL VENDORS BIDDING ON THIS PROJECT:

The changes, additions, substitutions, and/or deletions contained in Addendum No. 1 are hereby made a part of the Bid Documents for the **ITB #2024B-014 MAIN AND PRATT NH3 UPGRADE** project, fully and completely as if the same were fully set forth herein.

IN THE PLANS

1. Section

Add:

RL Pratt WTP Ammonia Feed System Improvements

IN THE SPECIFICATIONS

1. Section

Replace with:

The deadline for submitting ITB #2024B-014 has moved to **Thursday, August 29, 2024, at 2:00 p.m.** Bids will be opened publicly on the same day at 2:30 p.m.

You have until **5:00 p.m. on Friday, August 23, 2024**, to submit your questions. Please submit your questions in writing to procurement@vpsfl.org.

2. Section

Add:

None

Receipt acknowledged and conditions agreed to the _____ day of _____, 2024.

Bidder

By

ATTACHMENTS

ATTACHMENT 1 RESPONSES TO BIDDER QUESTIONS

ATTACHMENT 2 RL PRATT WTP AMMONIA FEED SYSTEM IMPROVEMENTS

ATTACHMENT 3 PRE-BID CONFERENCE SIGN IN SHEET

END OF ADDENDUM

**ATTACHMENT 1
RESPONSES TO BIDDER QUESTIONS**

Question 1: What is the estimated construction budget?

Response 1: Main WTP has a budget of \$468,600.00. RL Pratt WTP has a budget of \$480,700.00.

Question 2: Can I get a copy of the pre-bid meeting sign in sheet if available?

Response 2: Included is the sign-in sheet from the pre-bid conference. .

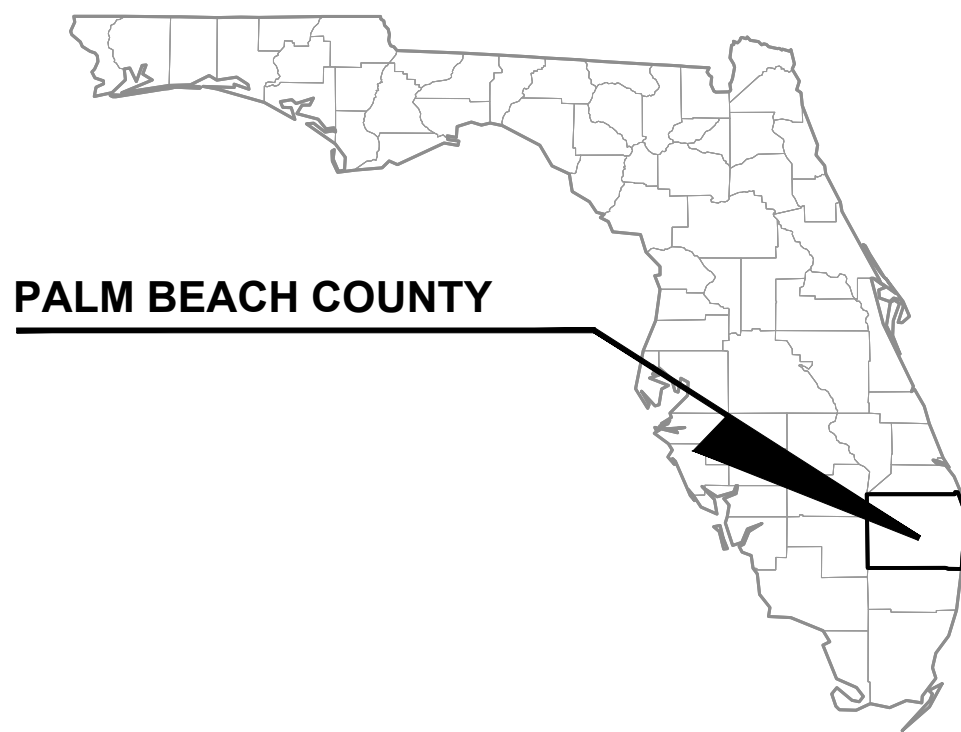
Question 3: The documents reference work at the RL Pratt plant but there are no drawings for that work.

Response 3: A section at the end of the addendum contains the RL Pratt WTP plans.

Plotted By: Corriu, Daniel Sheet Set: RL Pratt WTP Ammonia Feed System Improvements Layout: G-1 COVER SHEET July 01, 2024 10:38:23am K:\WPB_Civil\140593011 - VPS PRATT WTP AMMONIA CAD\Plotsheets\G-1 COVER SHEET.dwg
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RL PRATT WTP AMMONIA FEED SYSTEM IMPROVEMENTS

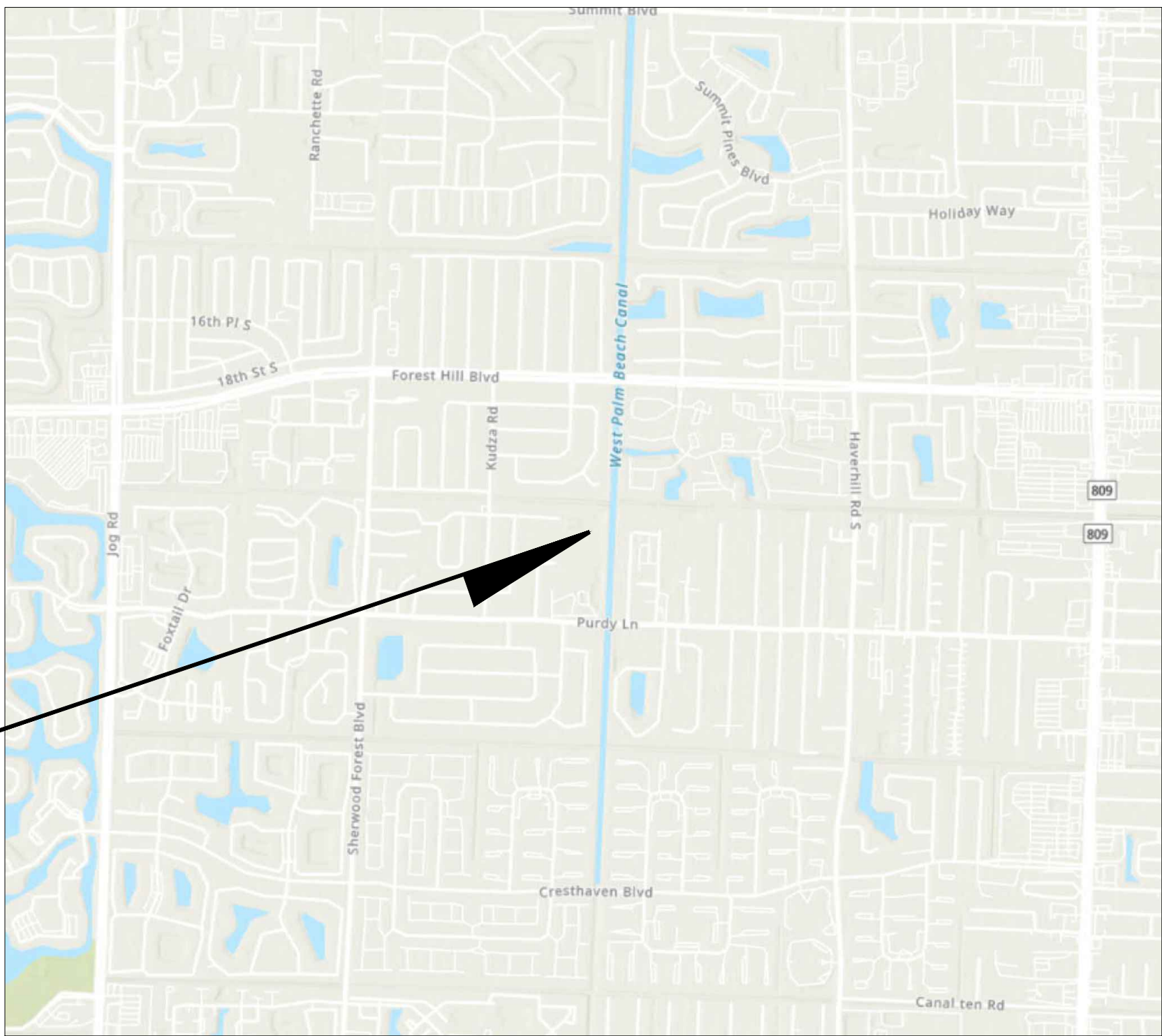
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VILLAGE OF PALM SPRINGS
JUNE 2024



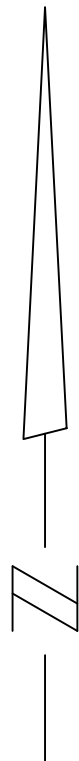
VICINITY MAP
N.T.S. or AS NOTED

PROJECT LOCATION

VPS PRATT WTP
5618 BASIL DRIVE
WEST PALM BEACH, 33415



LOCATION MAP
N.T.S. or AS NOTED



VILLAGE COUNCIL

MAYOR
VICE MAYOR
MAYOR PRO TEM
COUNCIL MEMBER
COUNCIL MEMBER
VILLAGE MANAGER
ASSISTANT VILLAGE MANAGER
UTILITY DIRECTOR
ASSISTANT UTILITIES DIRECTOR

BEV SMITH
JONI BRINKMAN
PATTI WALLER
GARY M. READY
KIM SCHMITZ
MICHAEL BORNSTEIN
KIM GLAS-CASTRO
JIMMIE JOHNSON
PAUL WARD

SHEET LIST

Sheet Number	Sheet Title
1	COVER SHEET
2	SITE PLAN
3	YARD PIPING IMPROVEMENTS PLAN
4	AMMONIA SYSTEM IMPROVEMENTS PLAN
5	AMMONIA FEED SECTION AND DETAILS
6	AMMONIA SYSTEM PHOTO DETAILS
7	AMMONIA SYSTEM PHOTO DETAILS
8	CONSTRUCTION DETAILS
9	CONSTRUCTION DETAILS CONT.
10	P&ID LEGEND AND ABBREVIATIONS
11	AMMONIA FEED SYSTEM AND RESIDUAL MONITORING P&ID
12	ELECTRICAL NOTES & LEGEND
13	ELECTRICAL SITE PLAN
14	AMMONIA SYSTEM IMPROVEMENTS ELECTRICAL SITE PLAN
15	ELECTRICAL POWER & CONTROLS RISER DIAGRAMS
16	AMMONIA FEED SYSTEM P&ID CONDUIT TAGS
17	AMMONIA FEED CONTROL PANEL SCHEMATICS
18	AMMONIA FEED CONTROL PANEL DETAILS
19	ELECTRICAL DETAILS

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Kimley»Horn

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KHA PROJECT
140593011
DATE
JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA



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COVER SHEET

SHEET NUMBER

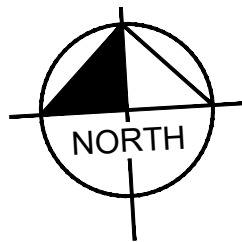
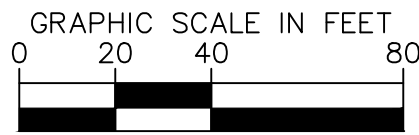
G-1

1 OF 19

Plotted By: Corniu, Daniel Sheet Set: RL Pratt WTP Ammonia Feed System Improvements Layout: C-1 SITE PLAN July 01, 2024 10:38:39am K:\WEB_Civil\140593011 - VPS PRATT WTP AMMONIA CAD\Plotsheets\C-1 SITE PLAN.dwg This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



SITE KEY MAP
Scale: 1" = 40'



GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WORK WITH THE OWNER AND PROVIDE 48-HOURS NOTICE PRIOR TO DEMOLITION.
2. CONTRACTOR SHALL CONFIRM SIZE, MATERIAL, AND LOCATION OF ALL MECHANICAL EQUIPMENT AND FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS TO ACCOMMODATE PROPOSED EQUIPMENT, INCLUDING VERIFICATION OF ALL EXISTING ELECTRICAL SERVICES IN THE FIELD AND WITH THE ELECTRICAL UTILITY COMPANY (TYP.)
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS AND CONSTRUCTION.
4. CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES AND SHALL PROTECT AND MAINTAIN THE INTEGRITY OF ANY AND ALL EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE EXISTING UTILITIES. CONTRACTOR WILL BE REQUIRED TO REPAIR/REPLACE ANY DAMAGED UTILITIES TO OWNERS SATISFACTION.
5. ALL AREAS IMPACTED BY CONSTRUCTION SHALL BE RESTORED PER SPECIFICATIONS.
6. CONTRACTOR IS NOTIFIED HEREIN THAT AMMONIA IS REQUIRED FEED FOR COMPLIANCE DISINFECTION. DEMOLITION OF EXISTING AMMONIA FACILITIES SHALL BE COMPLETE AFTER THE NEW SYSTEM IS OPERATIONAL, BEEN FUNCTIONALLY TESTED AND ACCEPTED BY THE OWNER. REFER TO SUMMARY OF WORK FOR CONSTRUCTION AND DEMOLITION SEQUENCING.

BID SUBMITTAL

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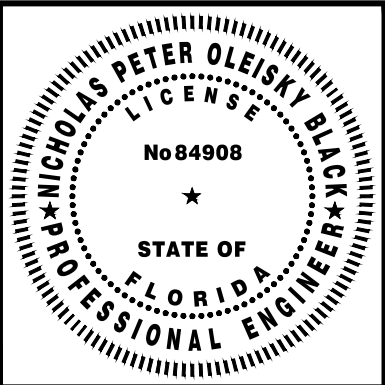
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KHA PROJECT	140593011
DATE	JUN 2024
SCALE	AS SHOWN
DESIGNED BY	NPOB
DRAWN BY	MM
CHECKED BY	NPOB

RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTYFLORIDA



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SITE PLAN

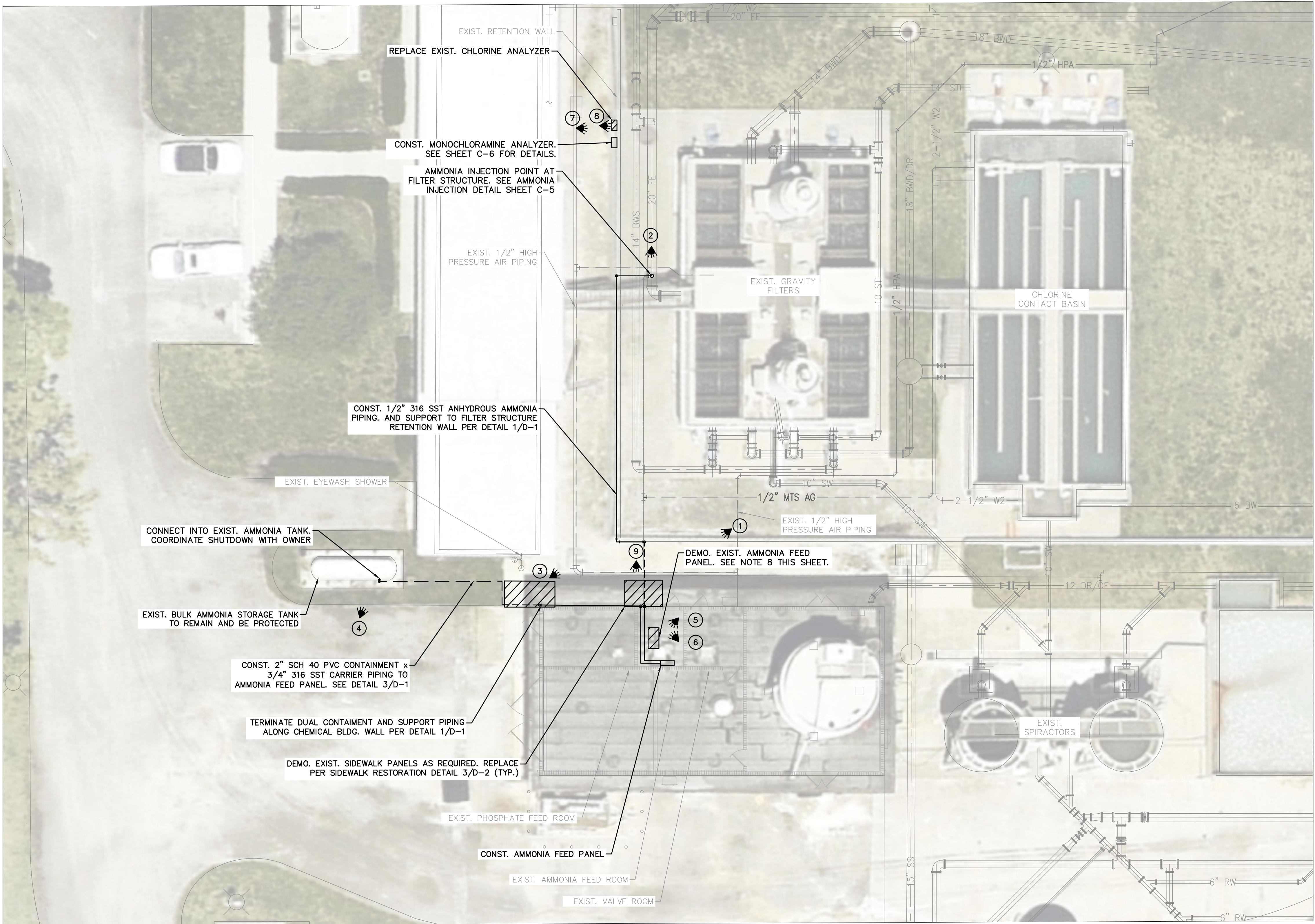
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SHEET NUMBER

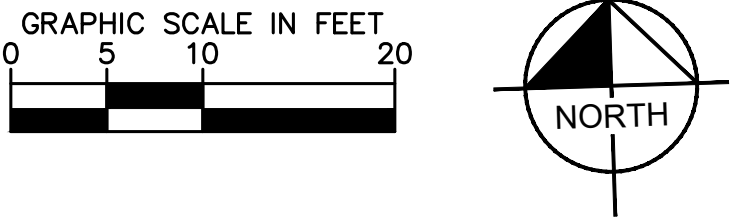
C-1

2 OF 19

Plotted By: Corniu, Daniel Sheet: RL Pratt WTP Ammonia Feed System Improvements Layout: C-2 YARD PIPING IMPROVEMENTS PLAN July 03, 2024 12:54:56pm K:\WPB_Civil\140593011 - VPS PRATT WTP AMMONIA CAD\Drawings\C-2 AMMONIA SYSTEM YARD PIPING.dwg
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AMMONIA SYSTEM YARD PIPING IMPROVEMENTS
Scale: 1' = 10'-0"



GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ALL MATERIALS DEMOLISHED SHALL BE DISPOSED OF LEGALLY OFF-SITE
3. CONTRACTOR SHALL COORDINATE WORK WITH THE OWNER AND PROVIDE 48-HOURS NOTICE PRIOR TO DEMOLITION.
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9. PIPE LABELS SHALL BE USED FOR ALL ABOVE GRADE AMMONIA PIPING.

LEGEND:

- ① PHOTO DETAIL #1 SHEET C-5
- ② PHOTO DETAIL #2 SHEET C-5
- ③ PHOTO DETAIL #3 SHEET C-5
- ④ PHOTO DETAIL #4 SHEET C-6
- ⑤ PHOTO DETAIL #5 SHEET C-6
- ⑥ PHOTO DETAIL #6 SHEET C-6
- ⑦ PHOTO DETAIL #7 SHEET C-6
- ⑧ PHOTO DETAIL #8 SHEET C-6
- ⑨ PHOTO DETAIL #9 SHEET C-6

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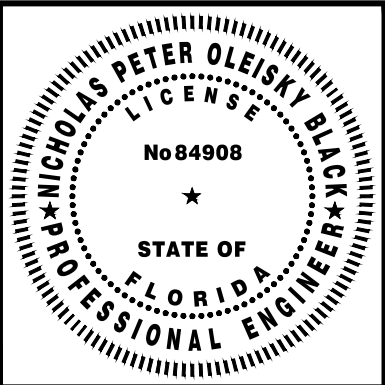
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DRAWN BY MM
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SYSTEM IMPROVEMENTS
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA



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**YARD PIPING IMPROVEMENTS
PLAN**

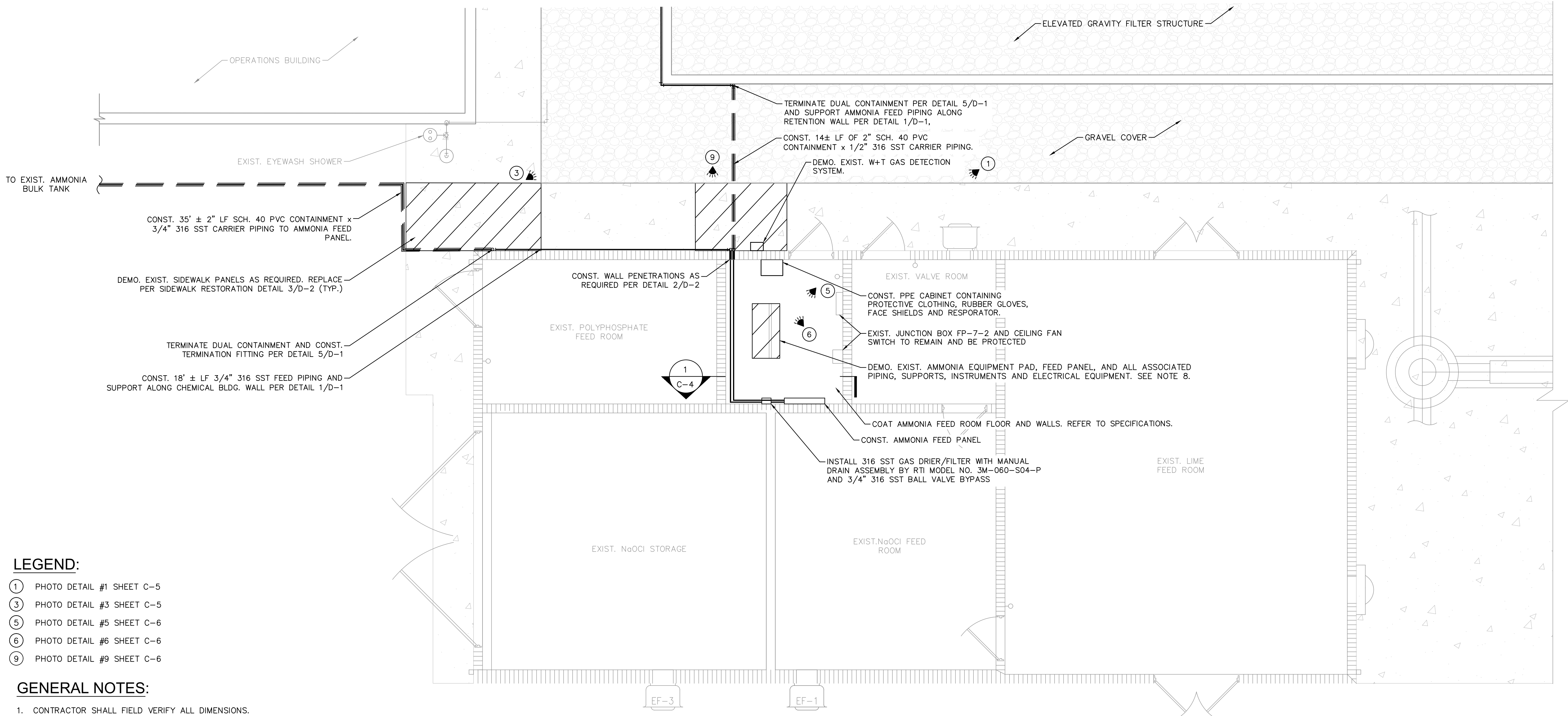
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SHEET NUMBER

C-2

3 OF 19

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LEGEND:

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③ PHOTO DETAIL #3 SHEET C-5
⑤ PHOTO DETAIL #5 SHEET C-6
⑥ PHOTO DETAIL #6 SHEET C-6
⑨ PHOTO DETAIL #9 SHEET C-6

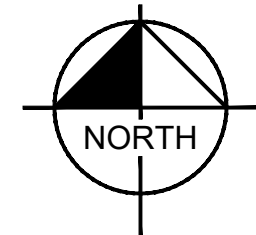
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- PIPE LABELS SHALL BE USED FOR ALL ABOVE GRADE AMMONIA PIPING.
- CONTRACTOR SHALL SUPPORT PIPING AND VALVES AS REQUIRED FOR A FULLY RIGID AND SUPPORTED AMMONIA FEED SYSTEM. ALL SUPPORT HARDWARE SHALL BE 316 SST.

AMMONIA SYSTEM IMPROVEMENTS PLAN

24x36 SHEET SIZE: $\frac{3}{4}$ " = 1'-0"
11x17 SHEET SIZE: $\frac{1}{8}$ " = 1'-0"

0 1 2 3 4
SCALE FEET



BID SUBMITTAL

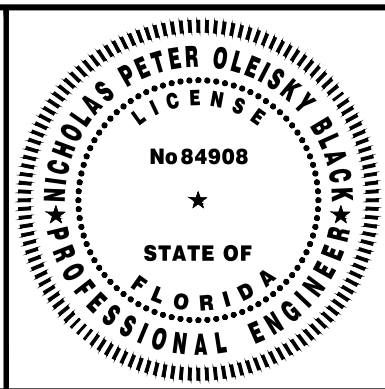
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KHA PROJECT
140593011
DATE
JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA



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AMMONIA SYSTEM
IMPROVEMENTS PLAN

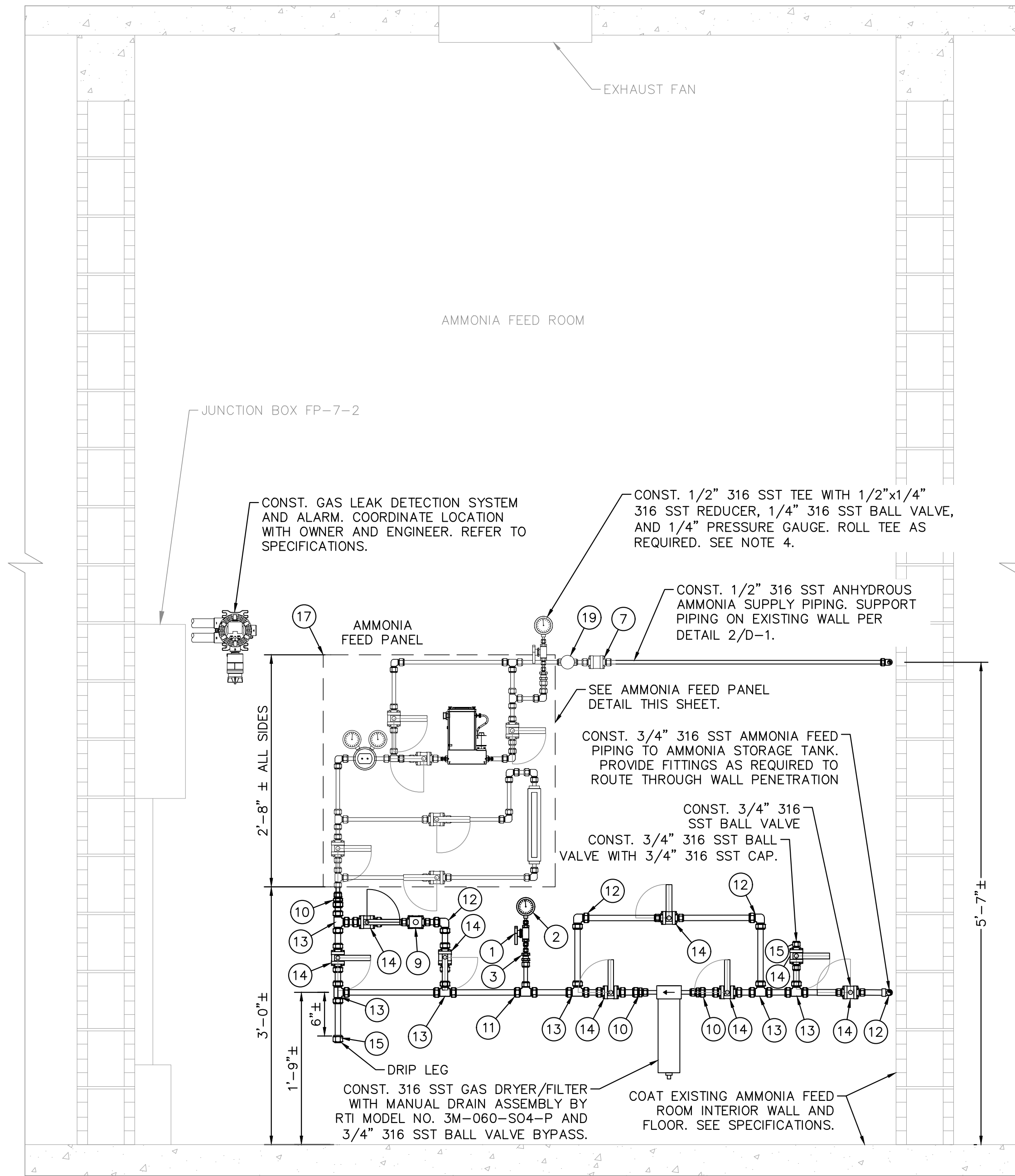
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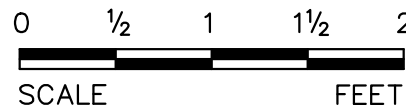
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4 OF 19

Plotted By: Corriu, Daniel Sheet Set: RL Pratt WTP Ammonia Feed System Improvements Layout: C-4 AMMONIA FEED SECTION AND DETAILS July 01, 2024 10:40:05am K:\WEB_Civil\140593011 - VPS PRATT WTP AMMONIA\CAD\Plotsheets\C-4 AMMONIA FEED SECTION AND DETAILS.dwg
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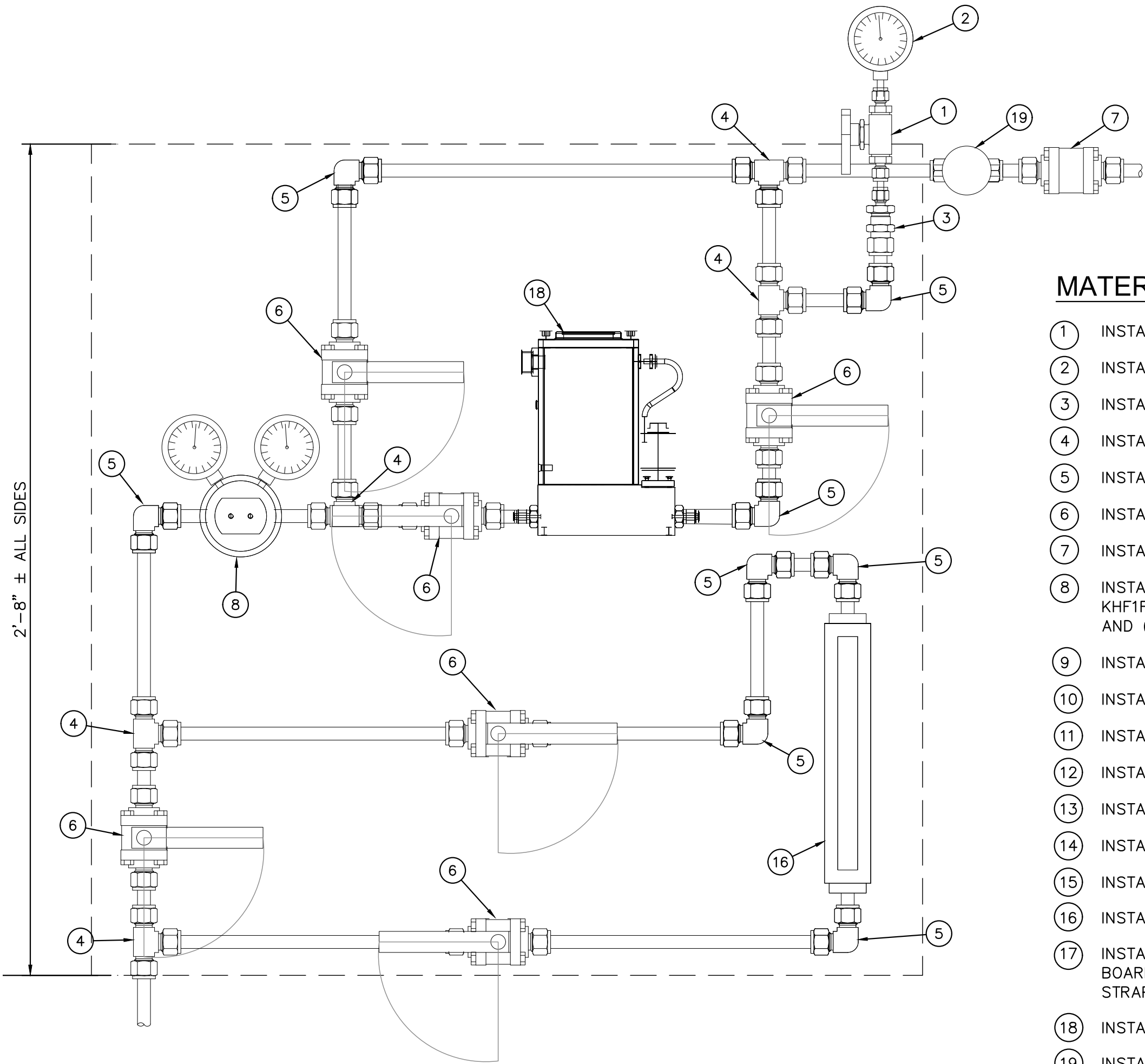


1
C-4 **AMMONIA FEED SYSTEM**
24x36 SHEET SIZE: 1"= 1'-0"
11x17 SHEET SIZE: 1/2"= 1'-0"



GENERAL NOTES

- ALL TUBING SHALL BE 1/2" OR 3/4" (AS SHOWN ON DRAWINGS) BY 0.083 WALL STAINLESS STEEL TUBING, ASTM A213, SEAMLESS TYPE 316 WITH SWAGelok STYLE COMPRESSION FITTINGS (TYP.). FULL STICK TUBING TO BE AS LONG AS POSSIBLE TO MINIMIZE JOINTS AND FITTINGS (TYP.).
- AMMONIA GAS ROTAMETER TO BE GLASS TUBE VARIABLE AREA FLOW METER. SEE SPECIFICATIONS FOR MAKE AND MODEL NUMBER.
- SOLENOIDS TO BE 1/2-INCH ELECTRONIC SOLENOID SUITABLE FOR ANHYDROUS AMMONIA GAS, NORMALLY CLOSED ENERGIZE TO OPEN ASCO SERIES 8210, 120 VAC (60 Hz), 2 WAY VALVE, MANUFACTURED OF 304 STAINLESS STEEL.
- ISOLATION VALVES TO BE SWAGelok, ALL 316 SST MATERIAL WITH UHMWPE PACKING AND EPDM SEALS.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
- EXISTING AMMONIA FEED MUST REMAIN IN SERVICE AT ALL TIMES. COORDINATE WITH OWNER ALL CUT-INS WHICH REQUIRE AMMONIA SERVICE INTERRUPTION.
- CONTRACTOR SHALL UTILIZE BROOKS SLAMF50F AND MODEL 0254 DISPLAY FOR AMMONIA CONTROL, SEE SPECIFICATIONS,
- PIPE LABELS SHALL BE USED FOR ALL ABOVE GRADE AMMONIA PIPING.
- CONTRACTOR SHALL UTILIZE ULTIMA X5000 GAS MONITOR BY MSA OR APPROVED EQUAL.



AMMONIA FEED PANEL DETAIL
3" = 1'-0"

MATERIAL LIST (TYP.)

- INSTALL 1/4" 316 SST BALL VALVE
- INSTALL 1/4" 316 SST PRESSURE GAUGE BY SWAGelok PGI SERIES. (0-100PSI)
- INSTALL 1/2" X 1/4" 316 SST REDUCING COUPLING
- INSTALL 1/2" 316 SST TEE
- INSTALL 1/2" 316 SST 90 BEND
- INSTALL 1/2" 316 SST BALL VALVE
- INSTALL 1/2" 316 SST INLINE BALL CHECK VALVE
- INSTALL 1/2" 316 SST PRESSURE REGULATOR BY SWAGelok MODEL NO. KH1FFM818A20000 W/(2) 316 SST 1/4" PRESSURE GAUGE ASSEMBLIES (0-100 PSI) AND (0-100 PSI)
- INSTALL 3/4" 316 SST SOLENOID ACTUATED BALVE
- INSTALL 3/4" X 1/2" 316 SST REDUCING COUPLING
- INSTALL 3/4" X 1/2" 316 SST REDUCING TEE
- INSTALL 3/4" 316 SST 90 BEND
- INSTALL 3/4" 316 SST TEE
- INSTALL 3/4" 316 SST BALL VALVE
- INSTALL 3/4" 316 SST CAP
- INSTALL GLASS TUBE VARIABLE AREA ROTAMETER. SEE NOTE 2.
- INSTALL 2'-6" X 2'-6" (+/-) X 3/4" THICK HIGH DENSITY POLYETHYLENE PANEL BOARD. SECURE TO WALL WITH 1/2" 316 SST TAPCONS. PIPING SHALL BE STRAPPED/SUPPORTED WITH 316 SST HARDWARE.
- INSTALL MASS FLOW CONTROLLER. SEE SPECIFICATIONS.
- INSTALL 1/2" 316 SST NEEDLE VALVE.

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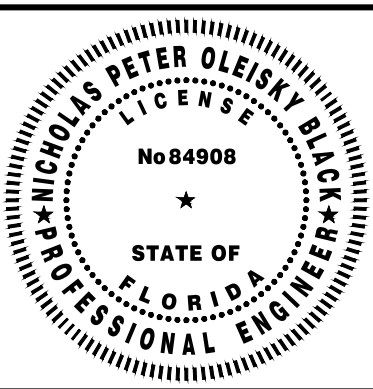
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No.	REVISIONS	DATE	BY

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KHA PROJECT 140593011
DATE JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

**RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS**
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA



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**AMMONIA FEED SECTION AND
DETAILS**

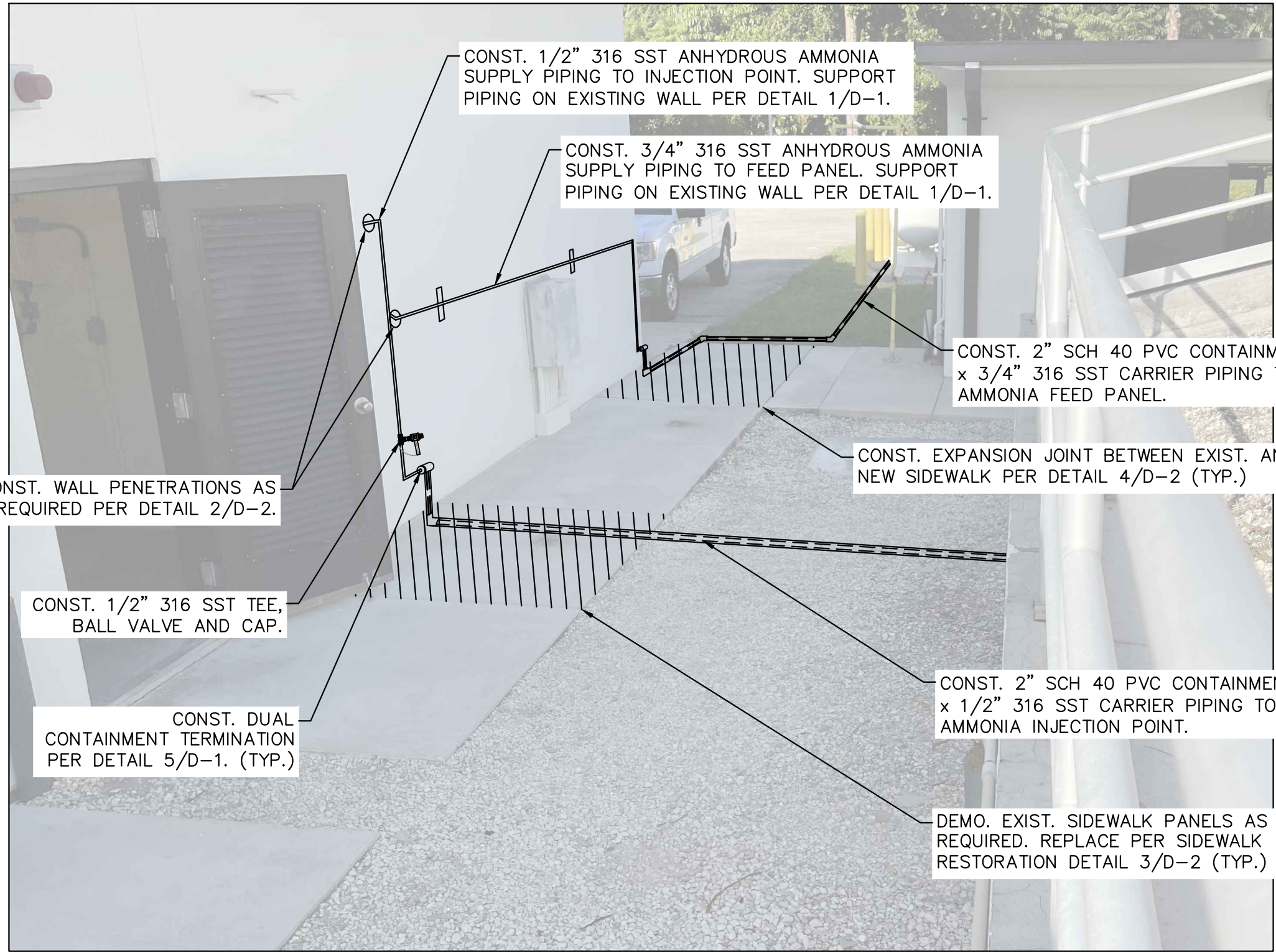
ON THE DATE ADJACENT TO THE SEAL

SHEET NUMBER

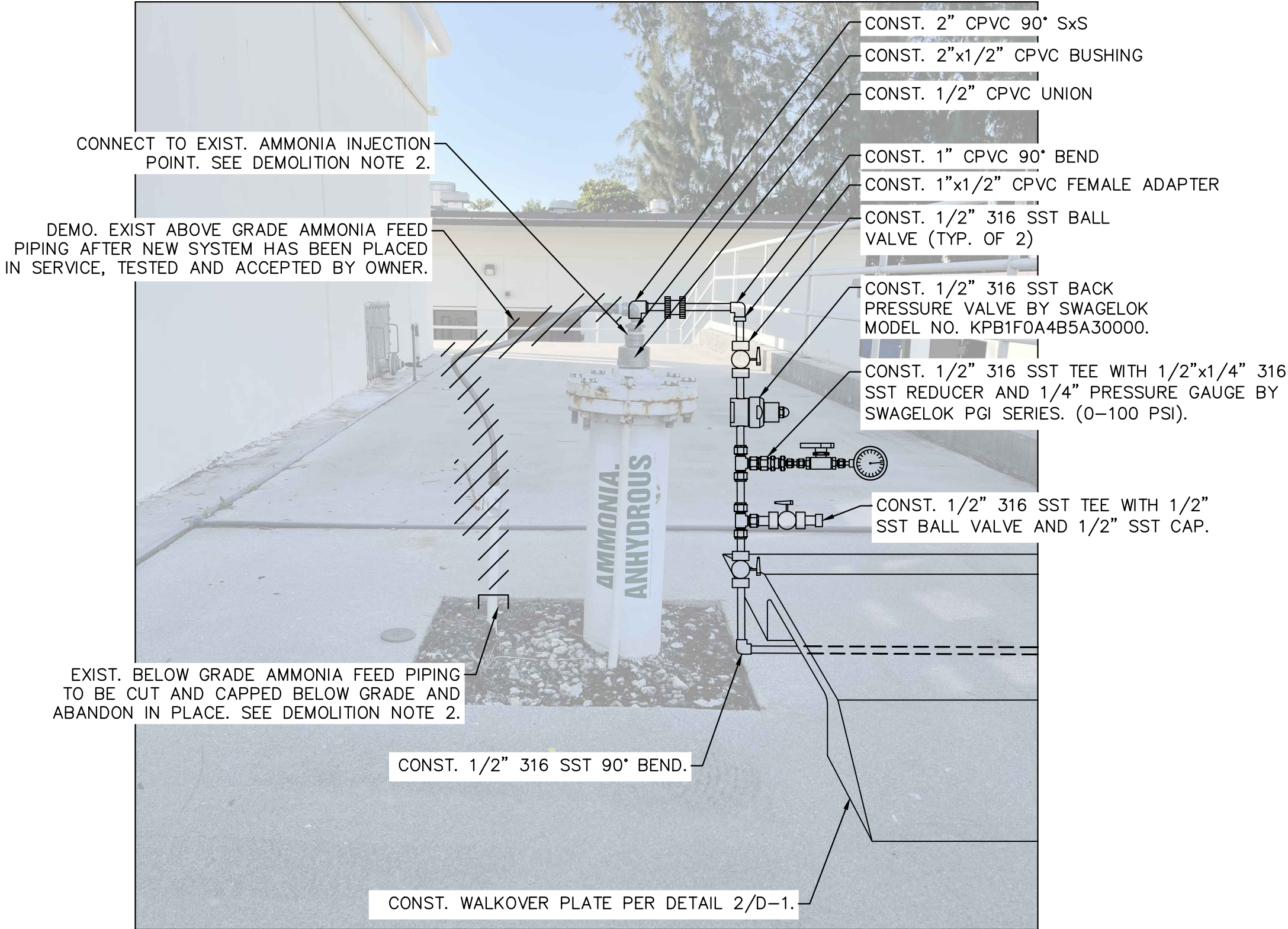
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5 OF 19

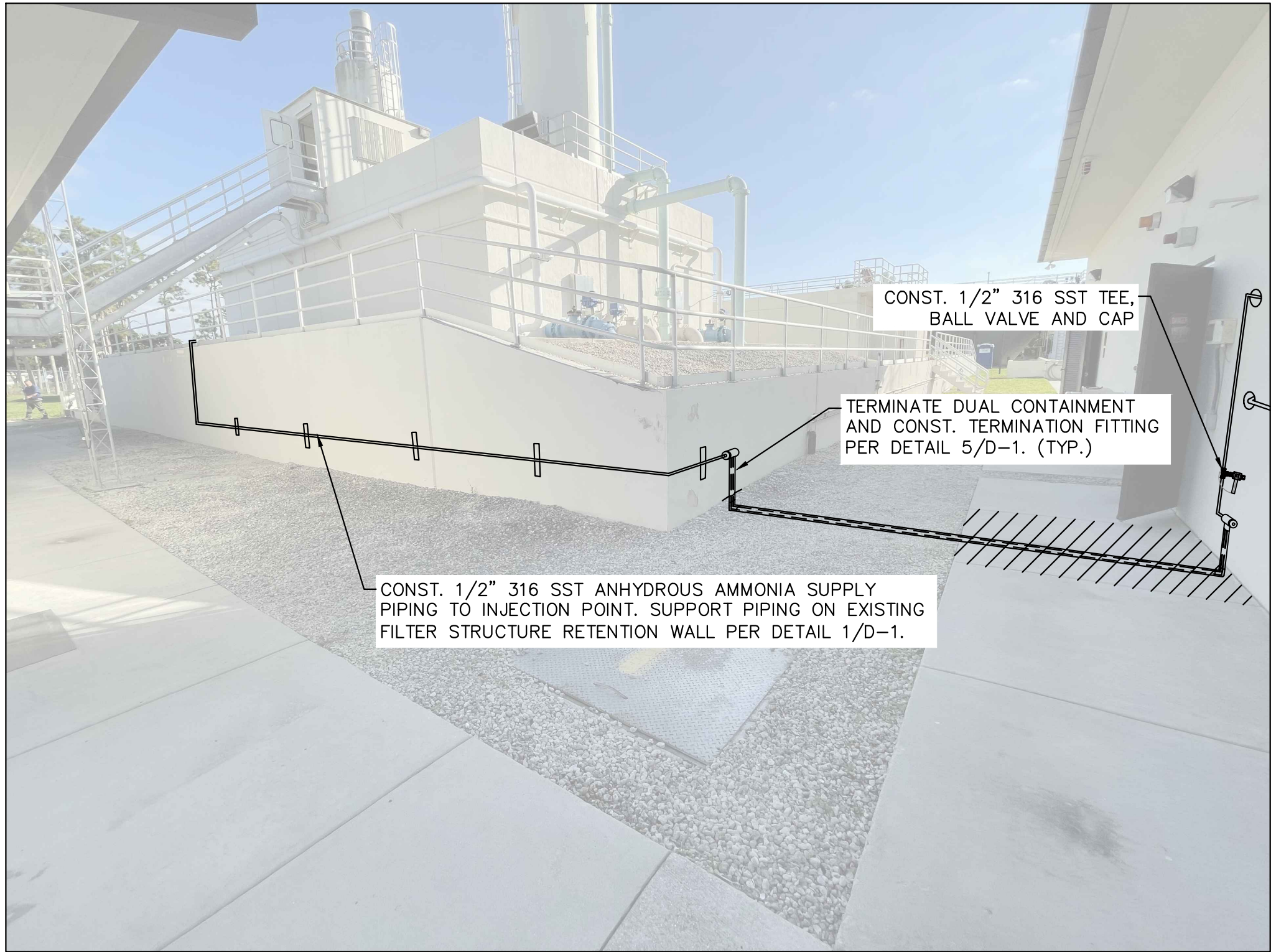
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1 PHOTO DETAIL 1
C-5 Scale: N.T.S.



2 PHOTO DETAIL 2
C-5 Scale: N.T.S.



3 PHOTO DETAIL 3
C-5 Scale: N.T.S.

GENERAL NOTES:

- ALL AMMONIA TUBING SHALL BE 1/2" OR 3/4" (AS SHOWN ON DRAWINGS) BY 0.083 WALL STAINLESS STEEL TUBING, ASTM A213, SEAMLESS TYPE 316 WITH SWAGELOK STYLE COMPRESSION FITTINGS (TYP.). FULL STICK TUBING TO BE AS LONG AS POSSIBLE TO MINIMIZE JOINTS AND FITTINGS (TYP.).
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
- INSTALL 1/4" 316 SST BACK PRESSURE VALVE BY SWAGELOK MODEL NO. KBP1FOA4B5A30000. PROVIDE 1/2"x3/4" 316 SST REDUCERS ON EACH SIDE OF BACK PRESSURE VALVE.
- INSTALL 1/4" 316 SST PRESSURE GAUGE BY SWAGELOK PGI SERIES. (0-100 PSI).
- PIPE LABELS SHALL BE USED FOR ALL ABOVE GRADE AMMONIA PIPING.

DEMOLITION NOTES:

- CONTRACTOR SHALL COORDINATE WORK WITH THE OWNER AND PROVIDE 48-HOURS NOTICE PRIOR TO DEMOLITION.
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- COORDINATE WITH OWNER FOR ITEMS TO BE RETURNED AFTER DEMOLITION. OWNER RESERVES THE RIGHT TO DESIGNATE ANY ITEMS FOR SALVAGE.
- ALL DEMOLISHED MATERIALS ARE TO BE DISPOSED OF LEGALLY OFF SITE.
- CONTRACTOR SHALL DEMOLISH ALL EXISTING CONDUITS, PIPING, AND PIPING SUPPORTS THAT MAY NOT BE SHOWN OR NOTED ON PLANS.
- CONTRACTOR SHALL GROUT FILL MOUNTING HOLES LEFT BY EXISTING PIPING SUPPORTS AND PAINT TO MATCH.

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NOT FOR CONSTRUCTION

No.	REVISIONS	DATE	BY

Kimley»Horn

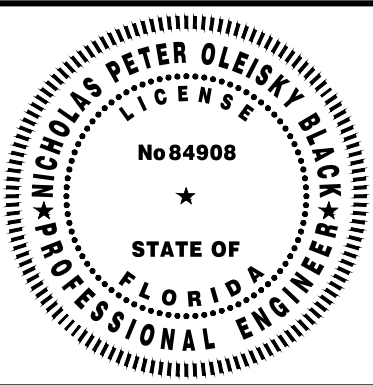
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PHONE: 561-845-0665 FAX: 561-863-8175
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT 140593011
DATE JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

RL PRATT WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY FLORIDA



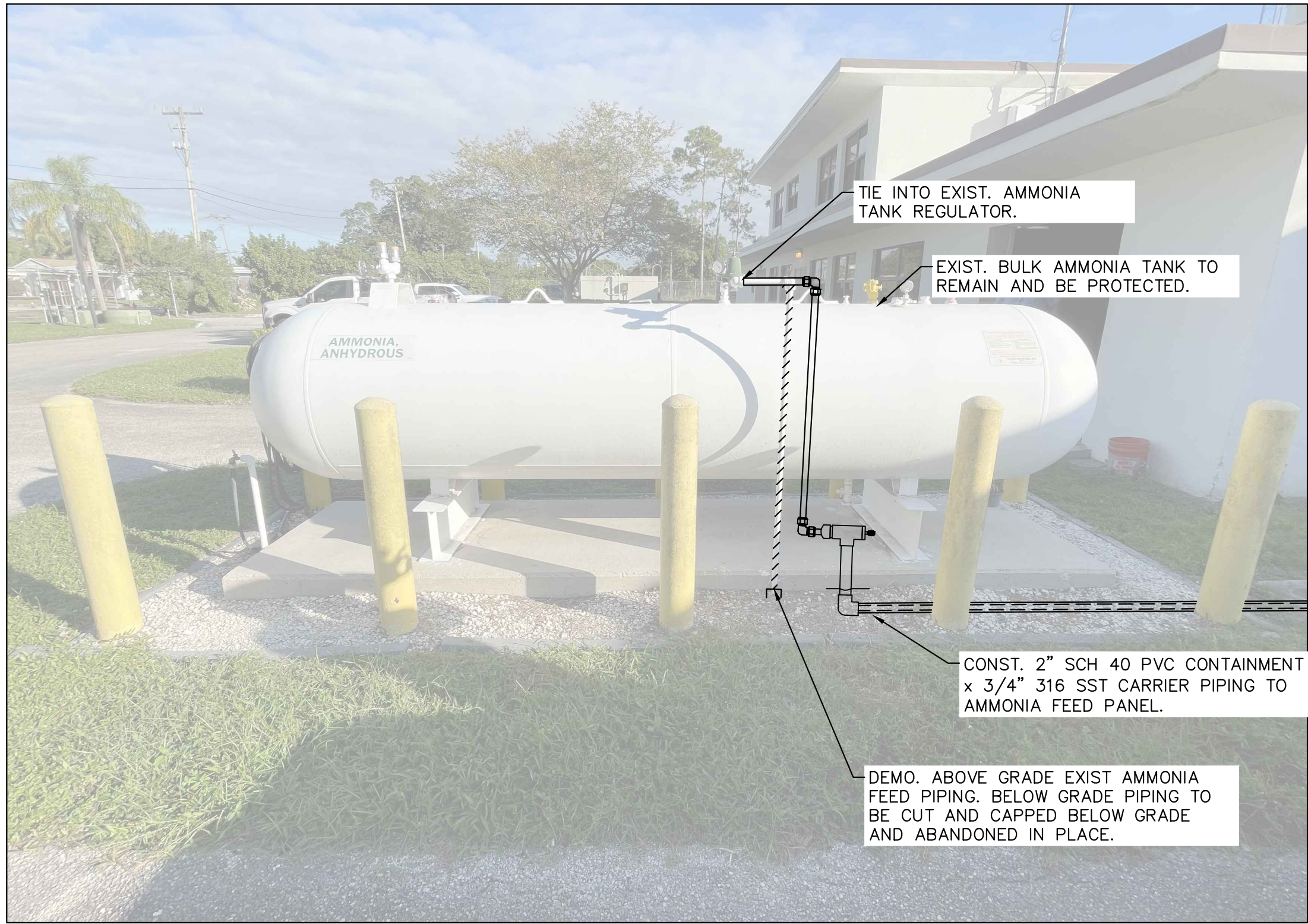
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AMMONIA SYSTEM PHOTO DETAILS

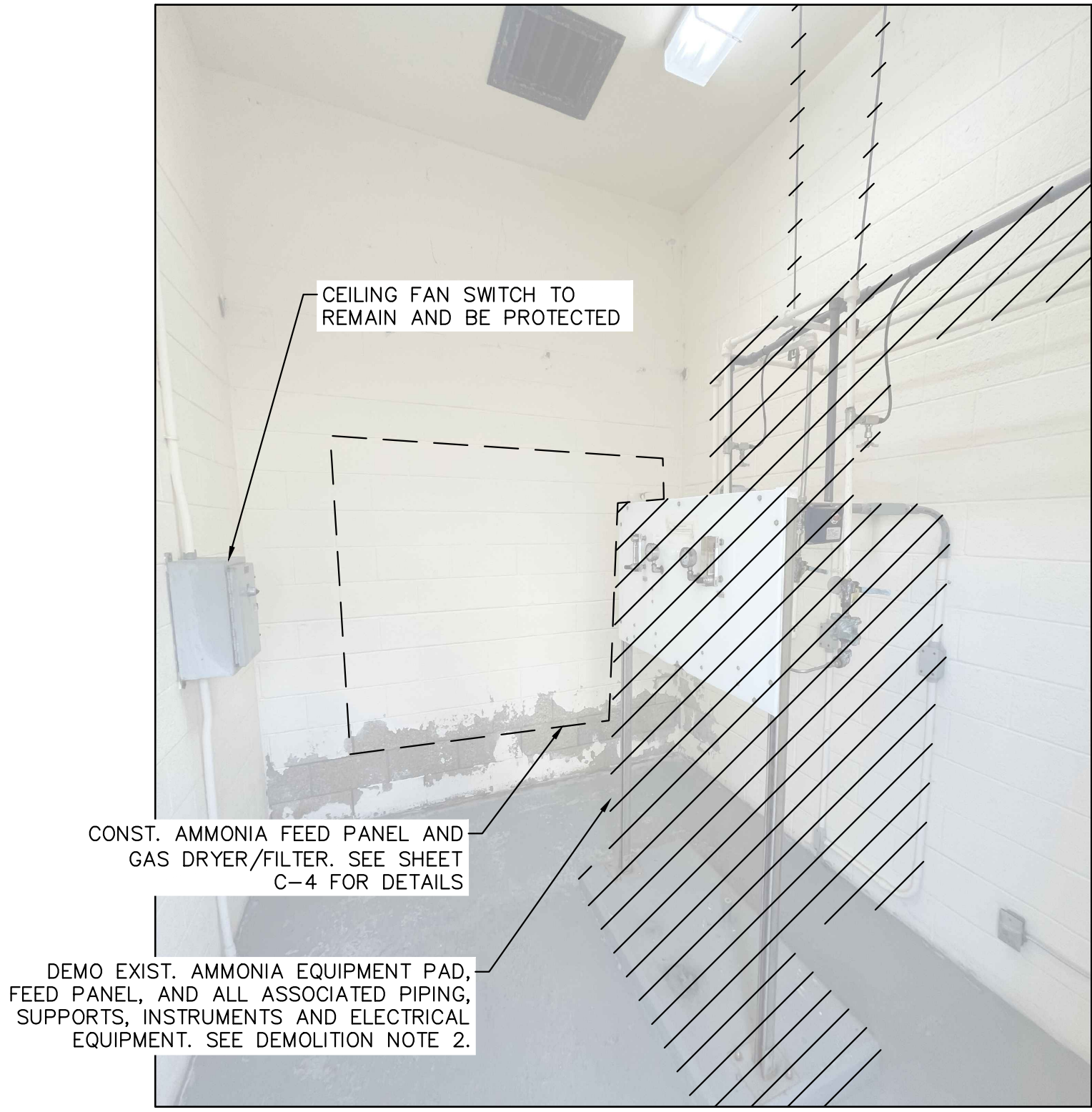
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SHEET NUMBER
C-5
6 OF 19

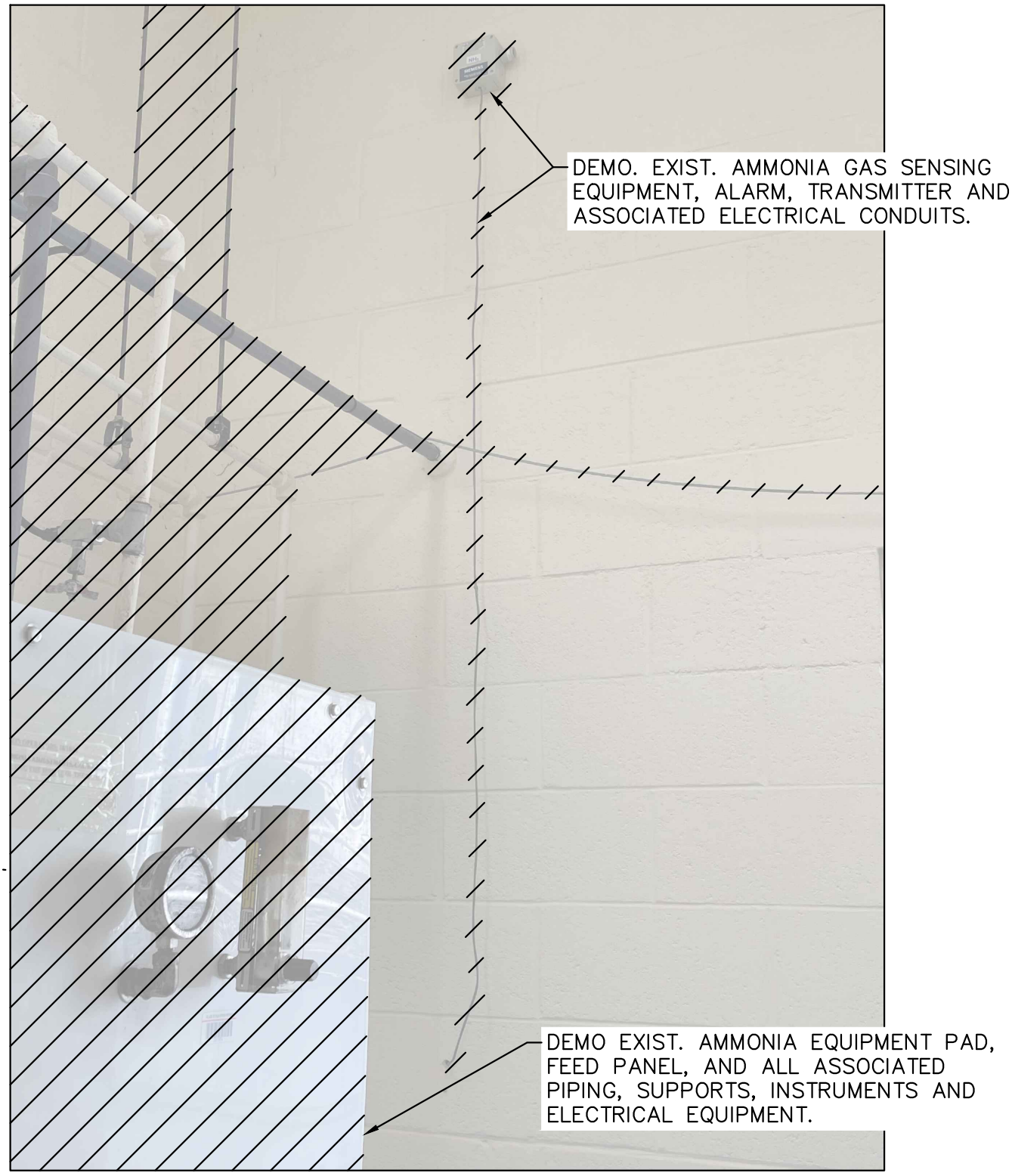
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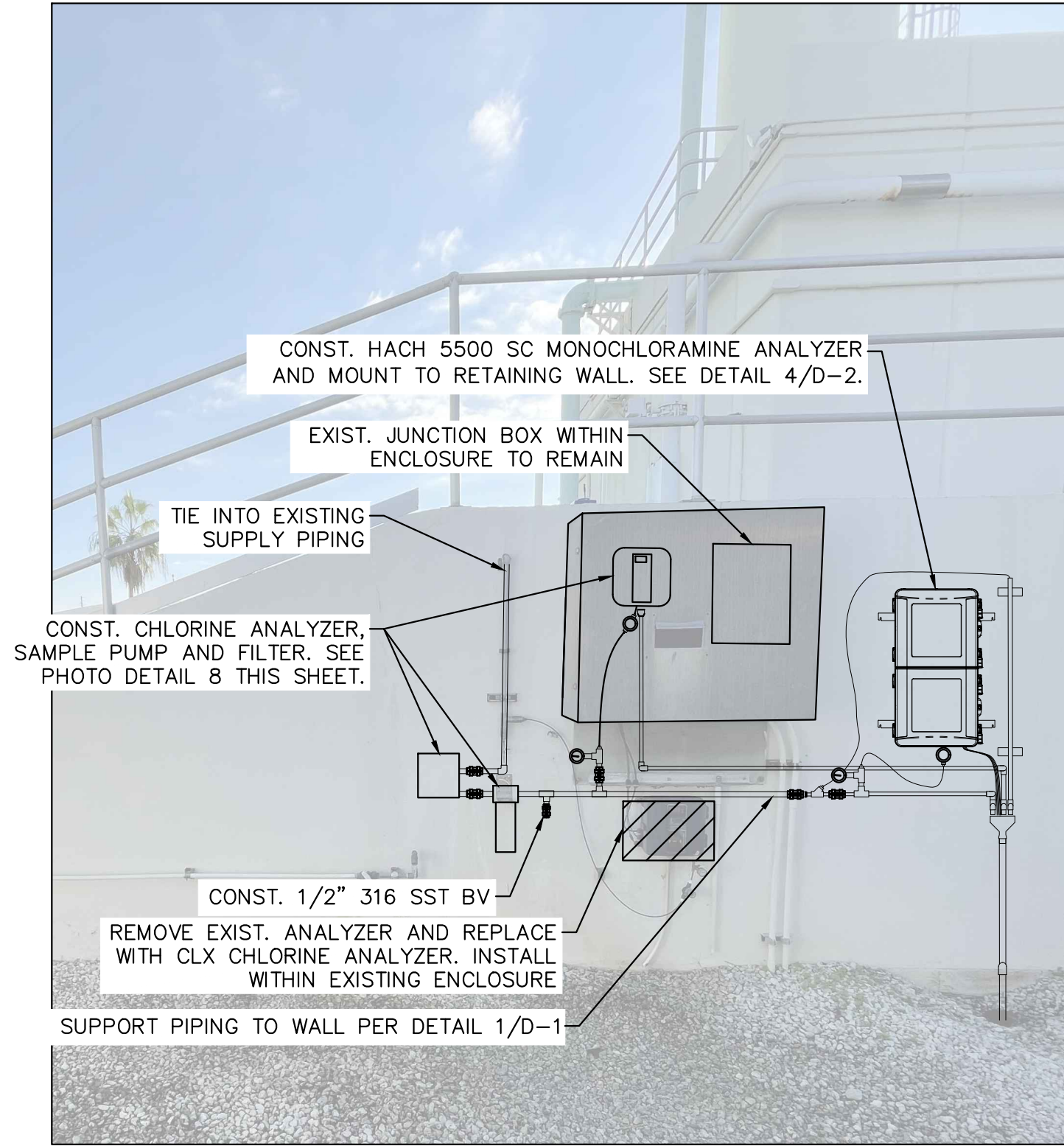
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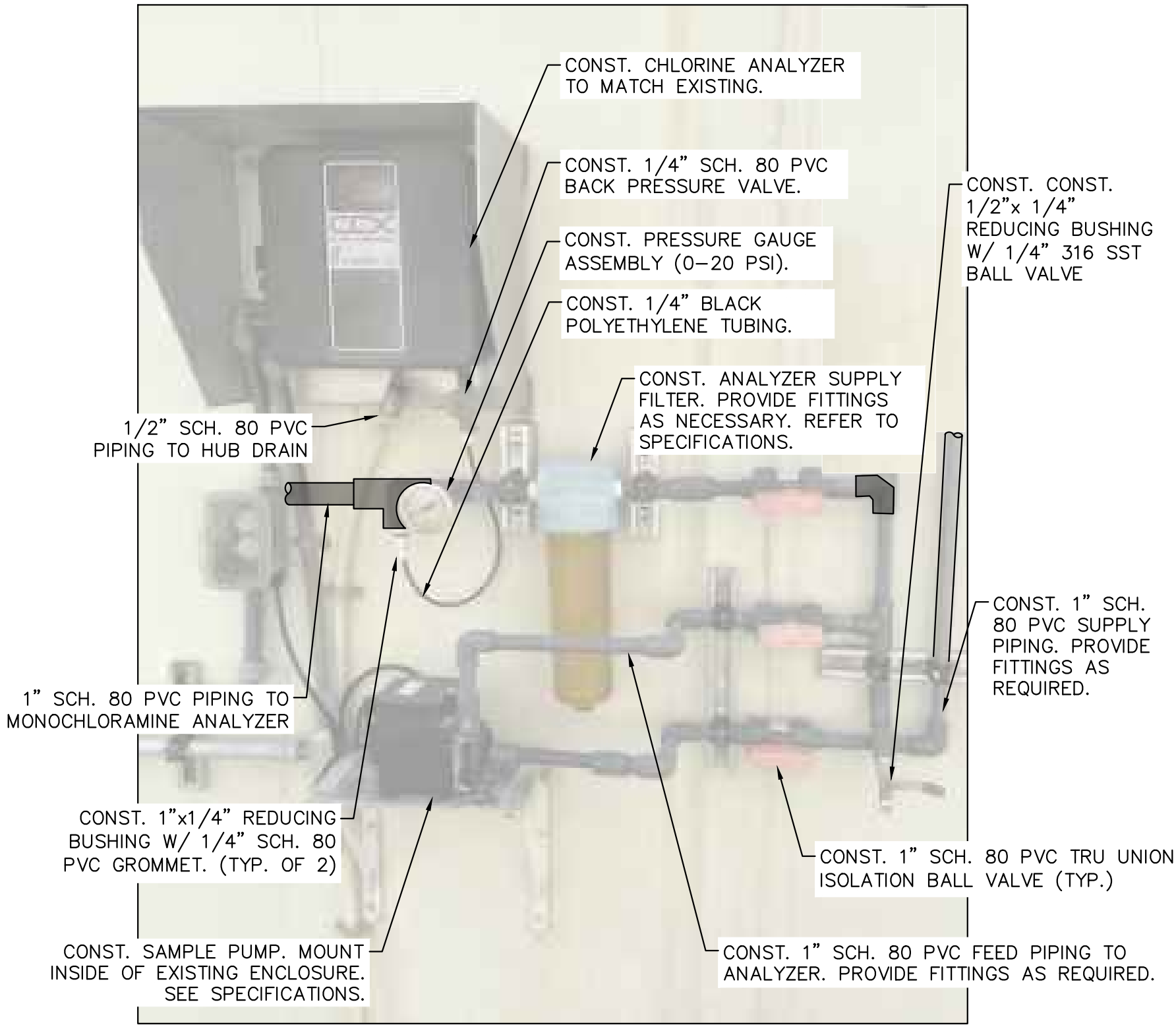
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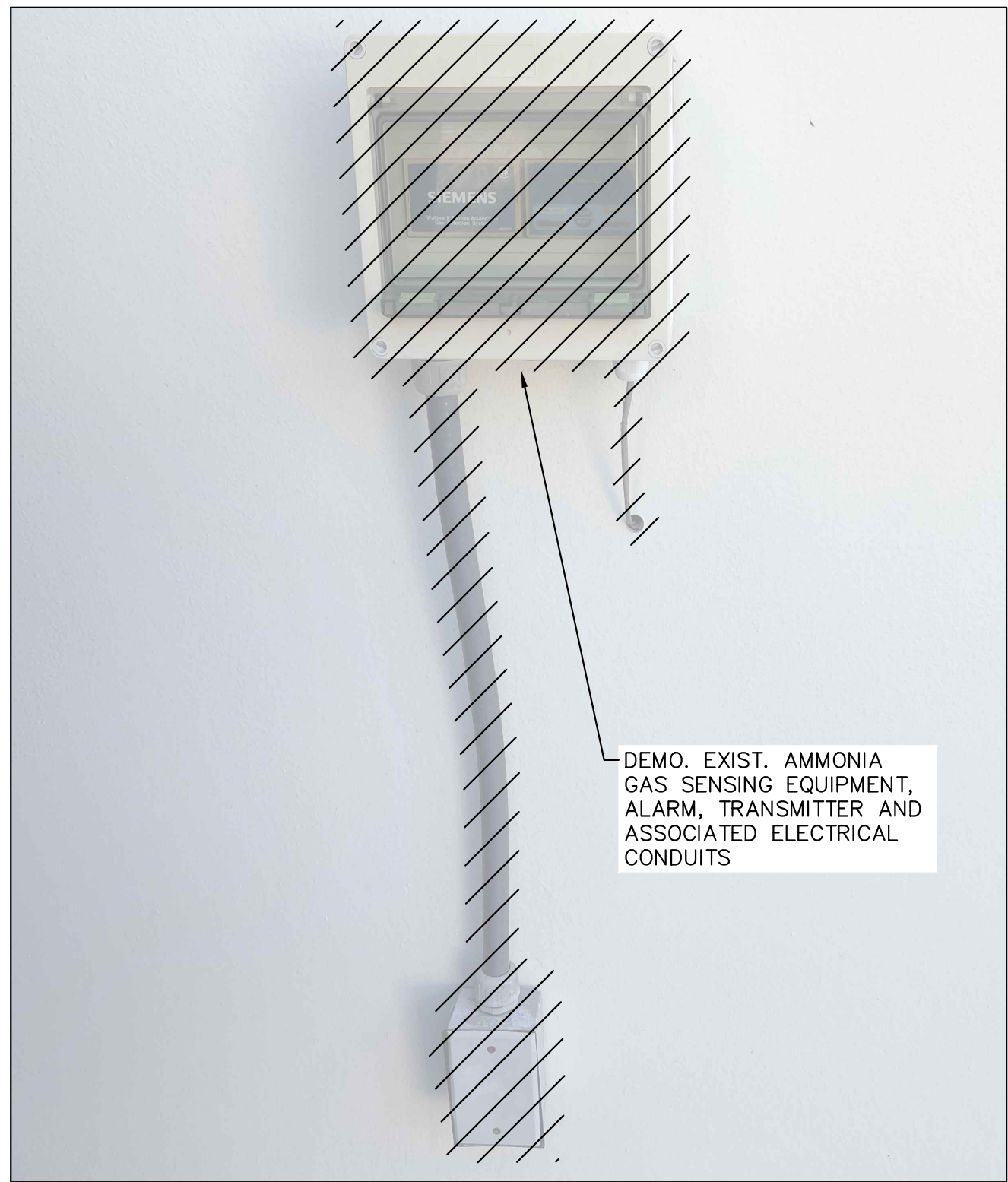
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C-6 Scale: N.T.S.



7 PHOTO DETAIL 7
C-6 Scale: N.T.S.



8 PHOTO DETAIL 8
C-6 Scale: N.T.S.



9 PHOTO DETAIL 9
C-6 Scale: N.T.S.

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NOT FOR CONSTRUCTION

No.	REVISIONS	DATE	BY

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PHONE: 561-845-0665 FAX: 561-863-8175
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT
140593011
DATE
JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA

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AND SEALED BY

**AMMONIA SYSTEM PHOTO
DETAILS CONT.**

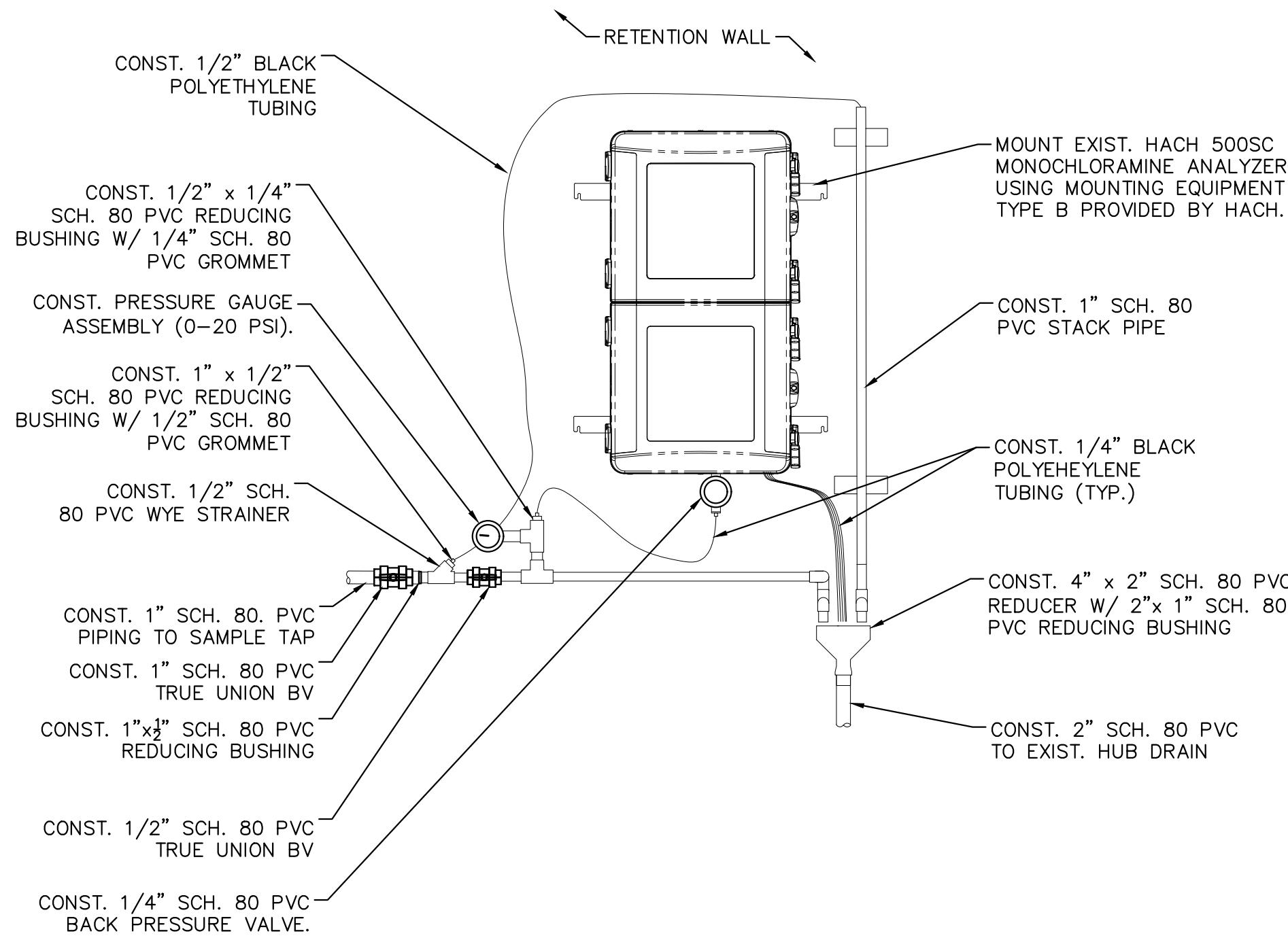
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SHEET NUMBER

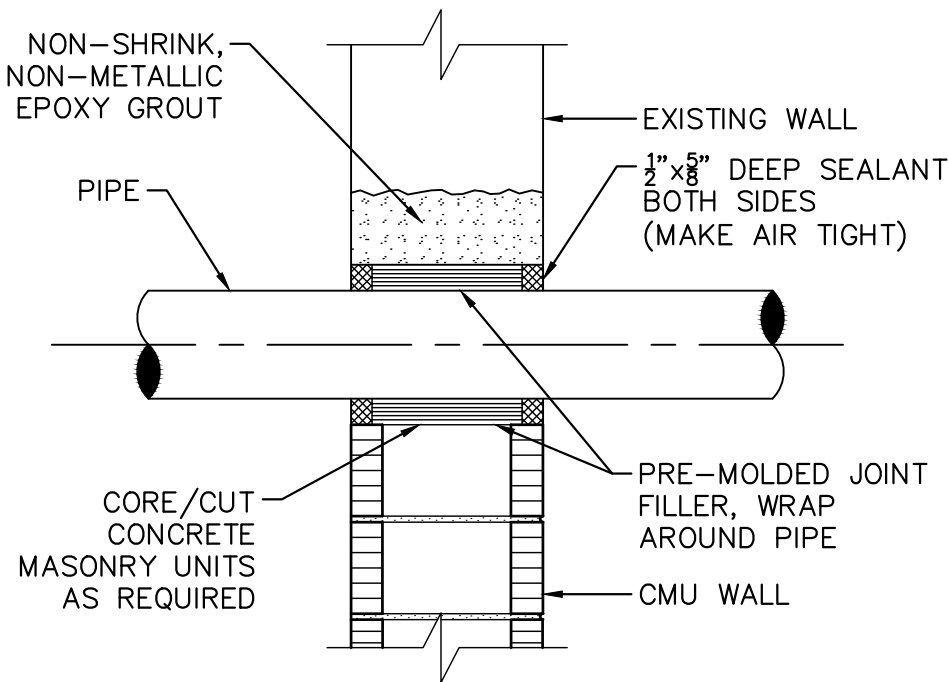
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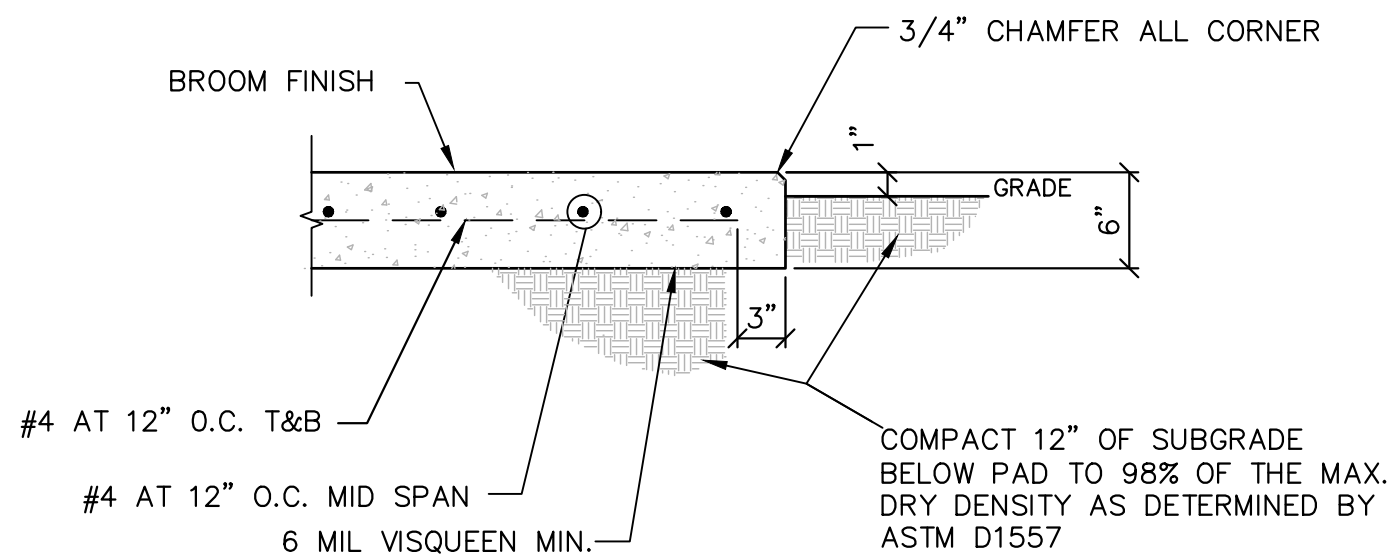
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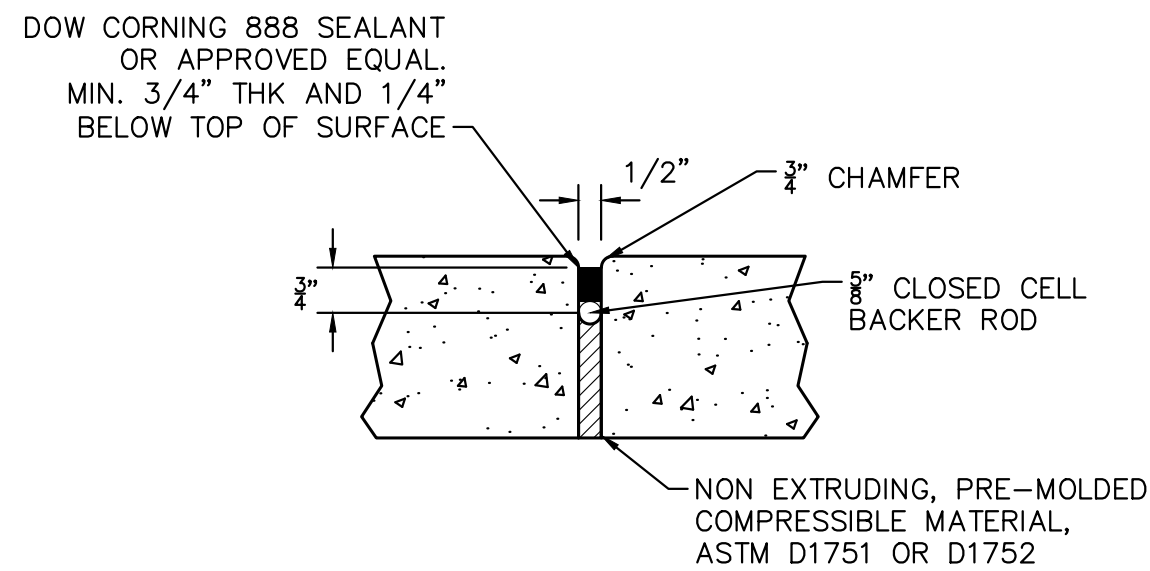
1 MONOCHLORAMINE ANALYZER DETAIL
D-2 Scale: N.T.S.



2 PIPE PENETRATION DETAIL
D-2 Scale: N.T.S.



3 SIDEWALK DETAIL
D-2 Scale: N.T.S.



4 EXPANSION JOINT
D-2 Scale: N.T.S.

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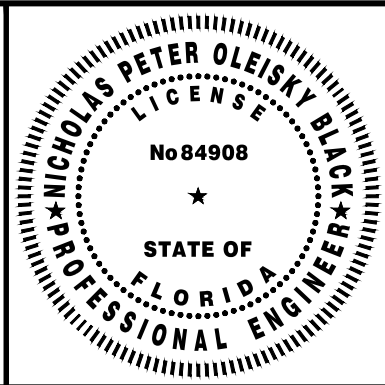
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SYSTEM IMPROVEMENTS**
PREPARED FOR
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PALM BEACH COUNTY FLORIDA



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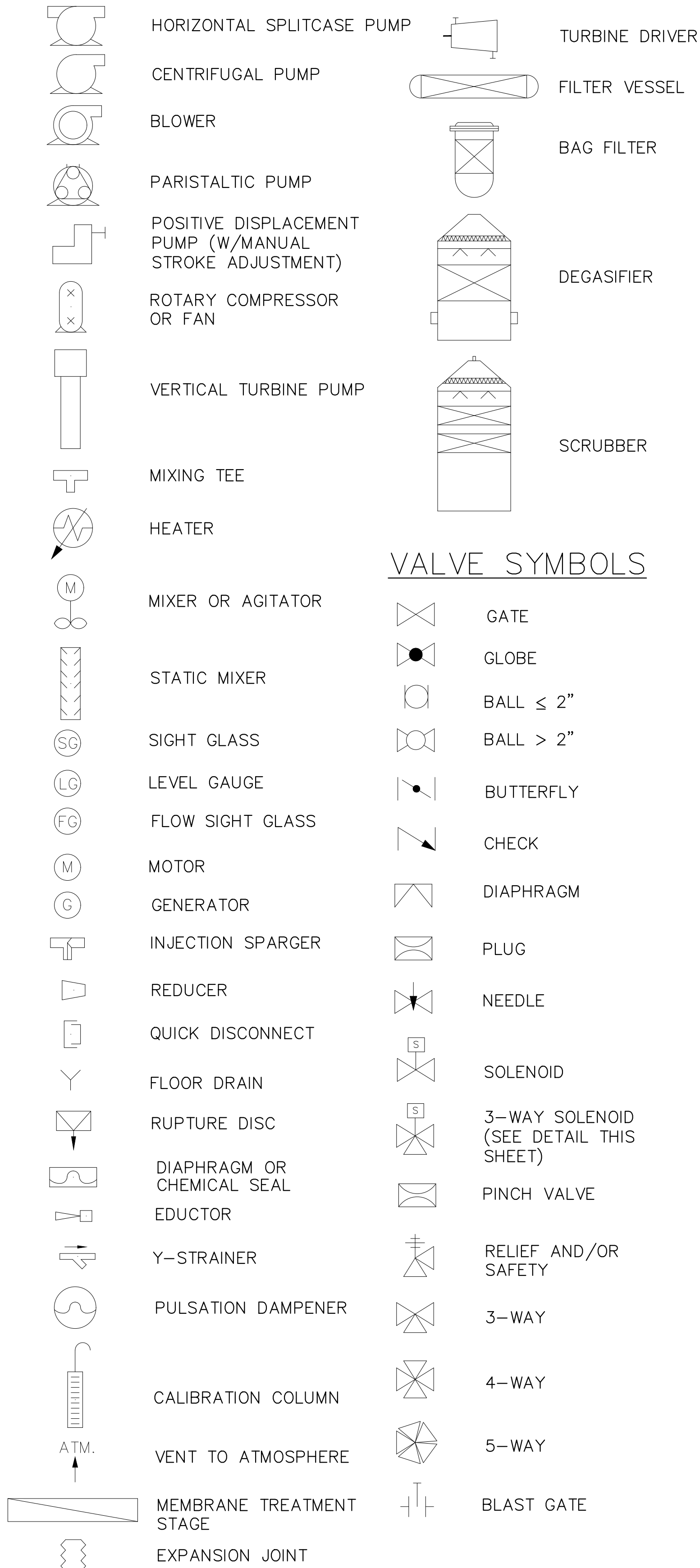
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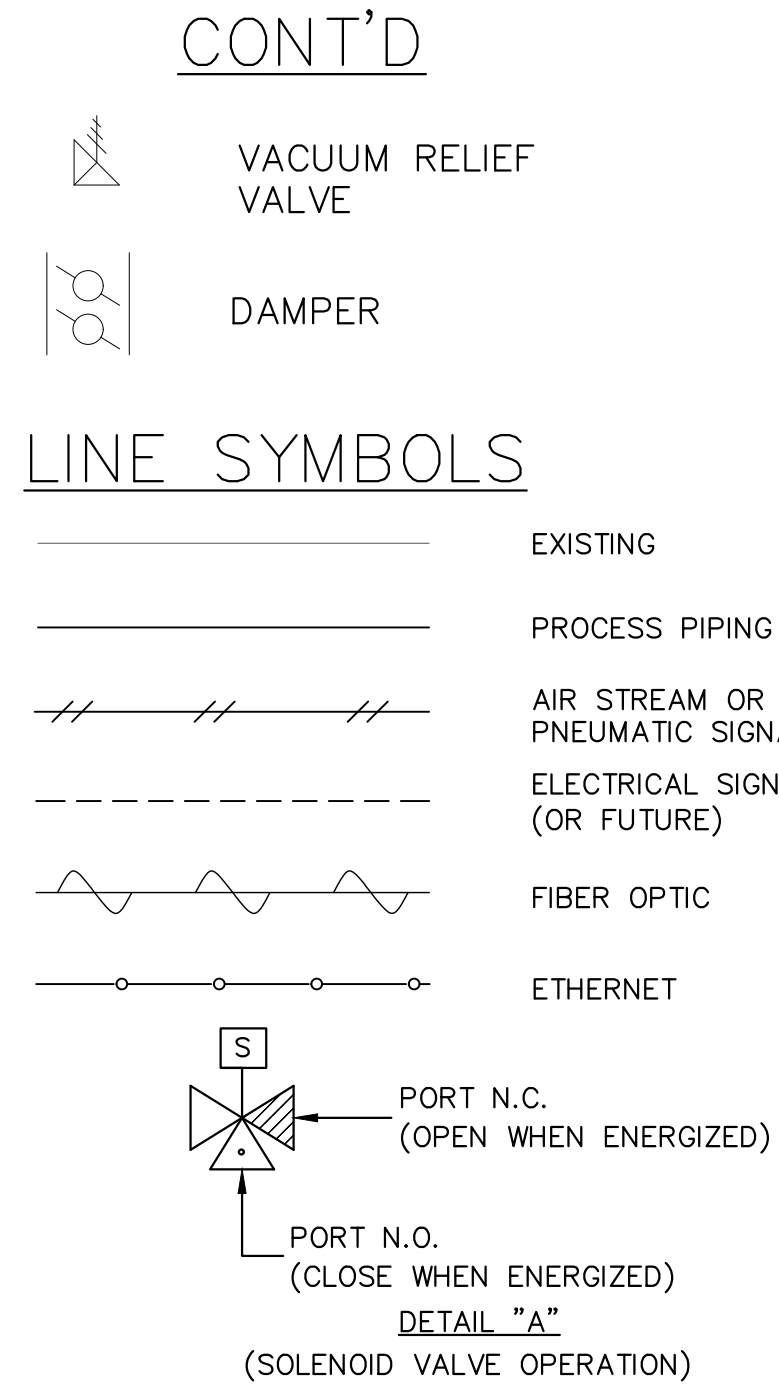
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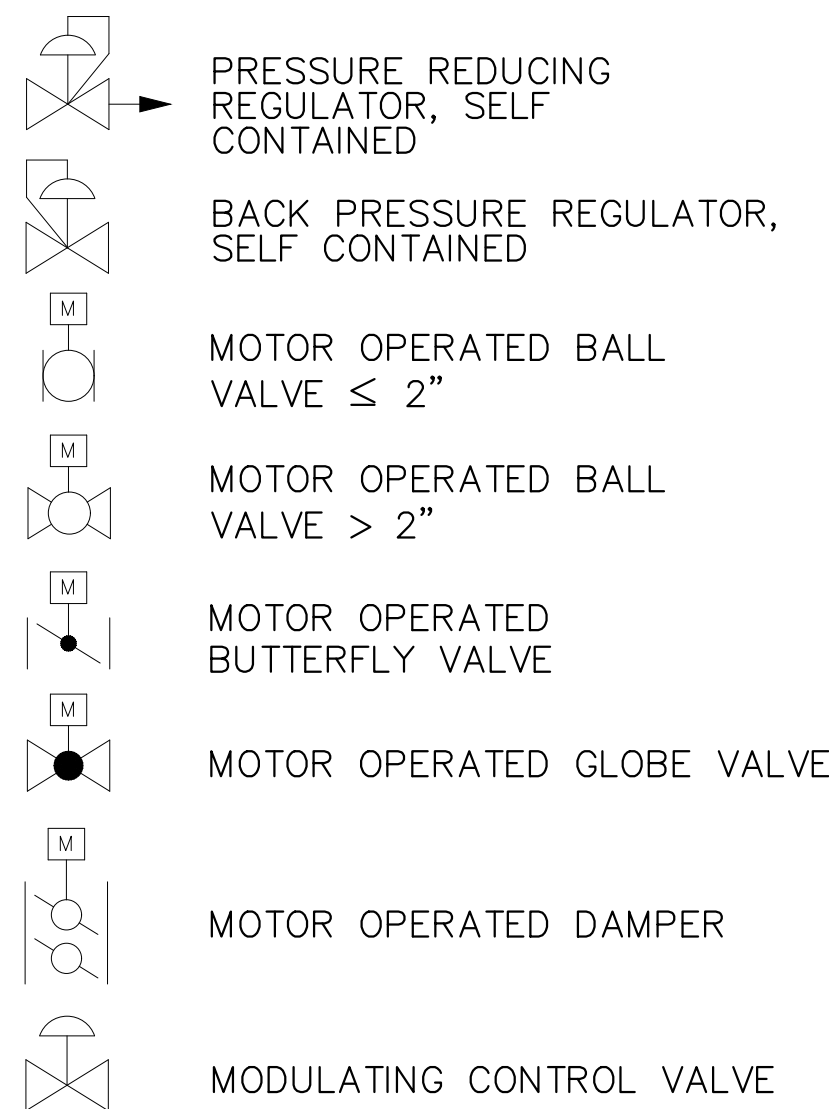
PIPING AND EQUIPMENT SYMBOLS



VALVE SYMBOLS



CONTROL VALVES/ ACTUATORS



SPECIAL IDENTIFICATION

SDI – SILT DENSITY INDEX TEST FILTER
HOLDER W/O.45 MICRON FILTER HOLDER

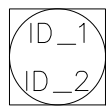
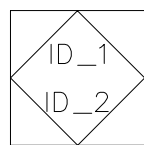
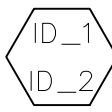
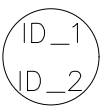
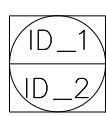
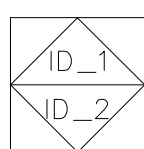
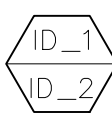
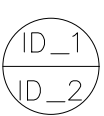
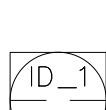
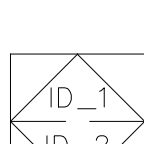
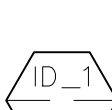
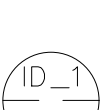
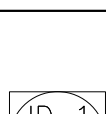
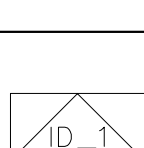
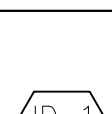
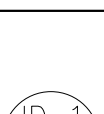
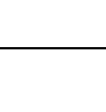
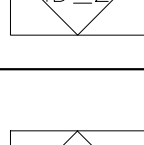
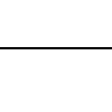
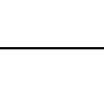
N.C. – NORMALLY CLOSED

N.O. – NORMALLY OPEN

F.C. – FAIL CLOSED

F.O. – FAIL OPEN

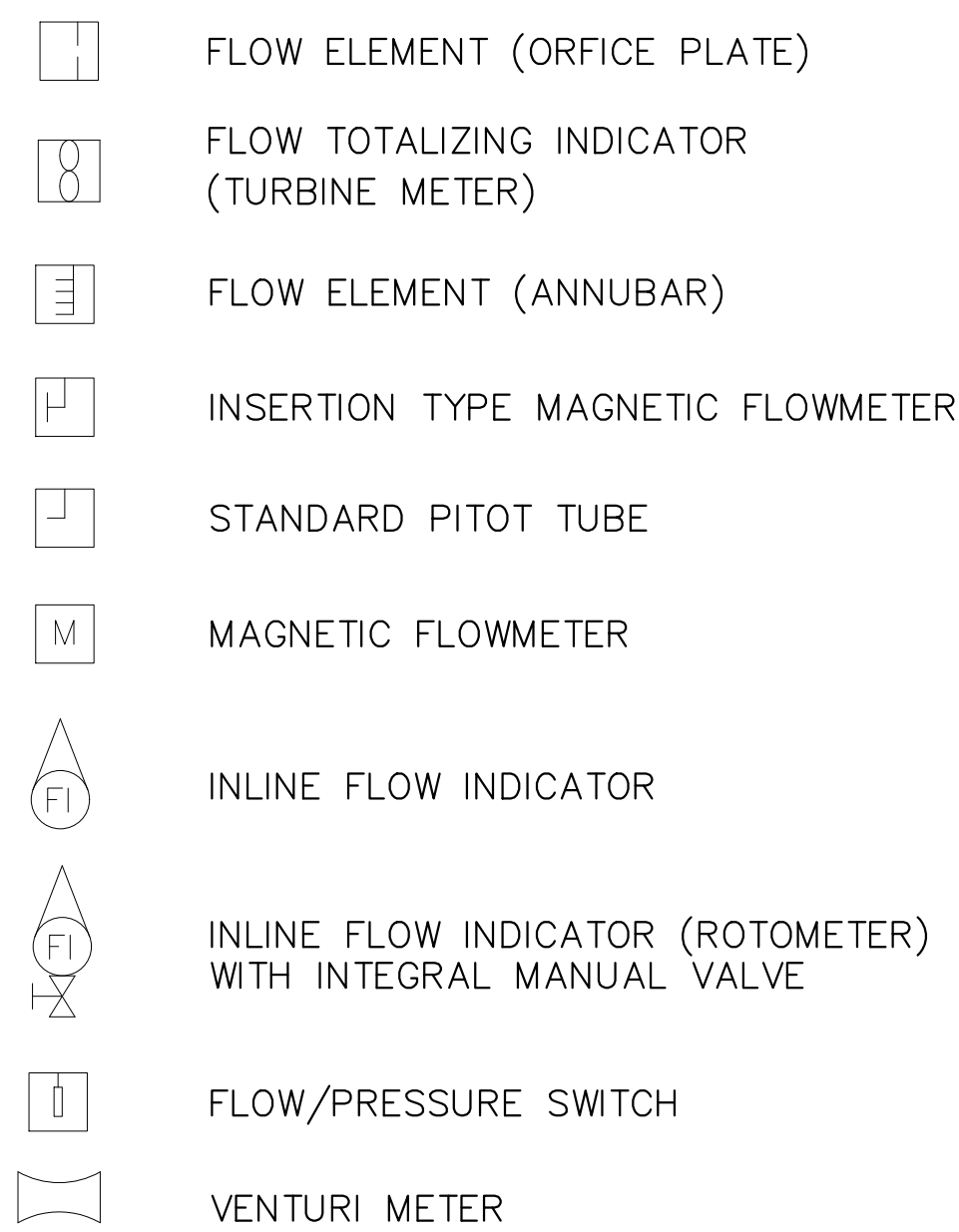
INSTRUMENT SYMBOLS

PRIMARY CHOICE OR BASIC PROCESS CONTROL SYSTEM	ALTERNATE CHOICE OR SAFETY INSTRUMENTED SYSTEM	COMPUTER SYSTEMS AND SOFTWARE	DISCRETE	LOCATION AND ACCESSIBILITY
				- LOCATED IN THE FIELD - NOT PANEL, CABINET, OR CONSOLE MOUNTED - VISIBLE AT FIELD LOCATION - NORMALLY OPERATOR ACCESSIBLE
				- LOCATED IN OR ON FRONT OF CENTRAL OR MAIN PANEL OR CONSOLE - VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY - NORMALLY OPERATOR ACCESSIBLE AT PANEL FRONT OF CONSOLE
				- LOCATED IN REAR OF CENTRAL OR MAIN PANEL - LOCATED IN CABINET BEHIND PANEL - NOT VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY - NOT NORMALLY OPERATOR ACCESSIBLE AT PANEL OR CONSOLE
				- LOCATED IN OR ON FRONT OF SECONDARY OR LOCAL PANEL OR CONSOLE - VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY - NORMALLY OPERATOR ACCESSIBLE AT PANEL FRONT OR CONSOLE
				- LOCATED IN REAR OF SECONDARY OR LOCAL PANEL - LOCATED IN FIELD CABINET - NOT VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY - NOT NORMALLY OPERATOR ACCESSIBLE AT PANEL OR CONSOLE

INSTRUMENT DEVICE OR FUNCTION
SYMBOLS, MISC.

	- SIGNAL PROCESSING FUNCTION - LOCATE IN UPPER RIGHT OR LEFT QUADRANT OF SYMBOLS ABOVE - ATTACH TO SYMBOLS ABOVE WHERE AFFECTED SIGNALS ARE CONNECTD - INSERT SIGNAL PROCESSING SYMBOLS FROM TABLE 5.6 - EXPAND SYMBOL BY 50% INCREMENTS FOR LARGER FUNCTION SYMBOLS
	- INSTRUMENTS OR FUNCTIONS SHARING A COMMON HOUSING - IT IS NOT MANDATORY TO SHOW A COMMON HOUSING - NOTES SHALL BE USED TO IDENTIFY INSTRUMENTS IN COMMON HOUSINGS NOT USING THIS SYMBOL
	- PILOT LIGHT - CIRCLE SHALL BE REPLACED WITH ANY SYMBOL FROM COLUMN D
	- PILOT LIGHT - CIRCLE SHALL BE REPLACED WITH ANY SYMBOL FROM COLUMN D

FLOW MEASUREMENT SYMBOLS

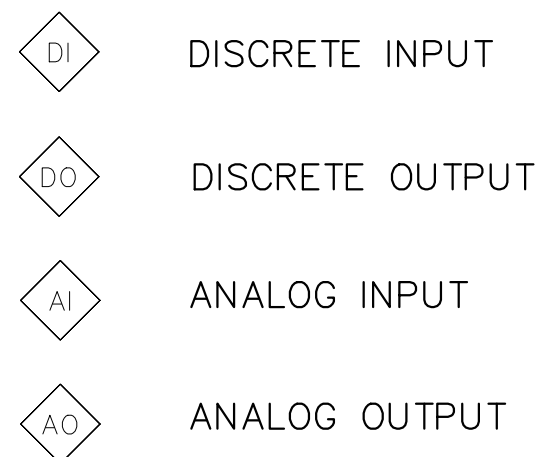


INSTRUMENT IDENTIFICATION LETTERS

FIRST LETTER (OR PAIR)			SUCCEEDING LETTERS		
	MEASURED/ INITIATING VARIABLE	VARIABLE MODIFIER	READOUT/PASSIVE FUNCTION	OUTPUT/ACTIVE FUNCTION	FUNCTION MODIFIER
A	ANALYSIS(2)		ALARM		
B			USERS CHOICE(3)	USERS CHOICE(3)	USERS CHOICE(3)
C	CONDUCTIVITY (ELECTRIC)			CONTROL	CLOSE
D		DIFFERENTIAL			
E	VOLTAGE (E.M.F.)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FUNCTION)			
G	GAGING (DIMENSION)		GLASS (DIRECT VIEW)	GATE	
H	HAND (MANUAL)				HIGH
I	CURRENT (ELECTRIC)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT(PILOT)		LOW
M	MOISTURE OR HUMIDITY				MIDDLE
N	USER'S CHOICE(3)		USERS CHOICE(3)	USERS CHOICE(3)	NORMAL
O	OXIDE REDUCT. POTENTIAL		ORFICE (RESTRICTION)		OPEN
P	PRESSURE OR VACUUM		TEST OR SAMPLE POINT		
Q	QUANTITY OR EVENT	INTERGRATE/ TOTALIZER			
R	RATIO		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VISCOSITY			VALVE,DAMPER, OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED(4)	UNCLASSIFIED(4)	UNCLASSIFIED(4)	UNCLASSIFIED(4)	UNCLASSIFIED(4)
Y	USERS CHOICE(3)		LIGHT SOURCE	RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE, ETC.	

1. ANY FIRST LETTER COMBINED W/ MODIFIER REPRESENTS A NEW AND SEPARATE MEASURED VARIABLE. EXAMPLES: PD=DIFFERENTIAL PRESSURE,FQ=TOTALIZED OR INTEGRATED FLOW. EXCEPTION IS MODIFIER "J" FOR MULTIPoint SCANNING. "A" IS USED FOR ANALYTICAL VARIABLES. EXAMPLES: pH,Na,SiO~s2~S,O~s2~S,ETC. A SYMBOL OR DESCRIPTION
2. DENOTING THE FUNCTION IS SHOWN OUTSIDE THE INSTRUMENT SYMBOL. EXAMPLE:  pH
3. MEANING OF A "USER CHOICE" LETTER SHALL BE CONSISTENT THROUGHOUT A PROJECT AND SHALL BE SPECIFIED IN THE DRAWING LEGEND.
4. UNCLASSIFIED LETTER MAY HAVE A FEW DIFFERENT MEANINGS ON A PROJECT. THE MEANING SHALL BE SPECIFIED NEAR EACH INSTRUMENT SYMBOL USING THE UNCLASSIFIED LETTER.

CONTROL SYMBOLS



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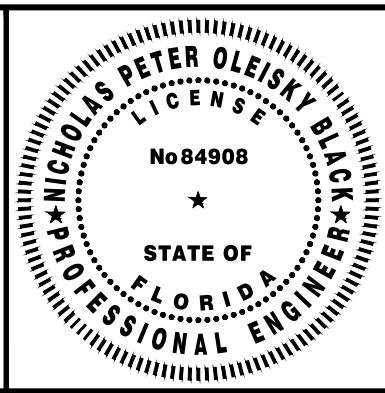
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WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT 140593011
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DRAWN BY MM
CHECKED BY NPOB

RL PRATT WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY FLORIDA



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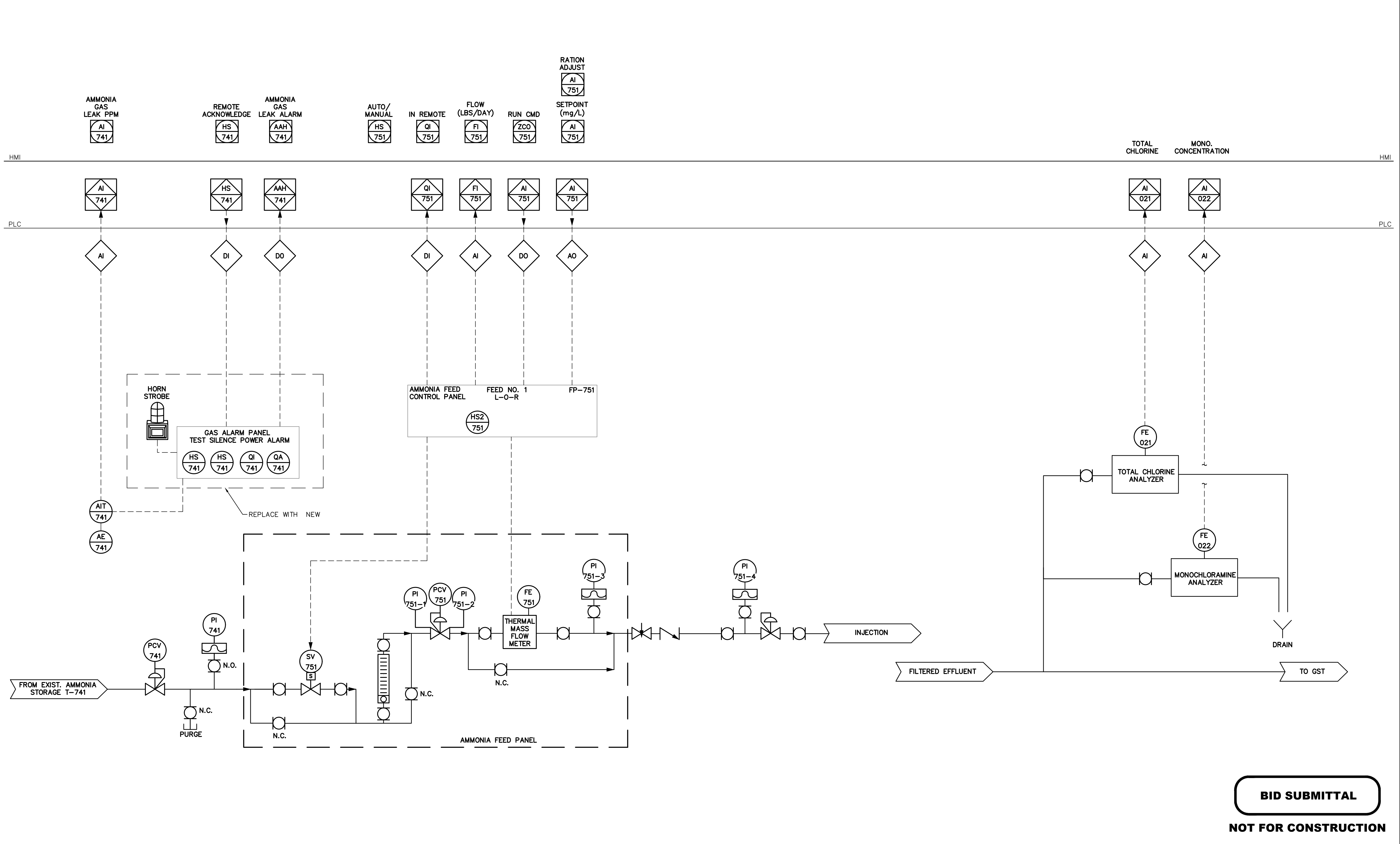
P&ID LEGEND AND ABBREVIATIONS

SHEET NUMBER

I-1

10 OF 19

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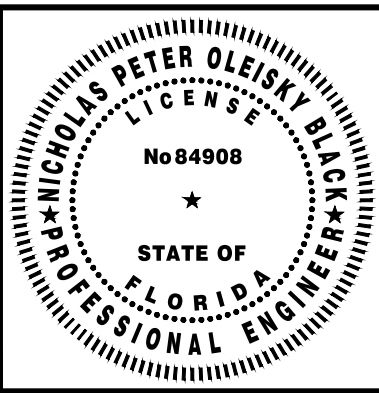
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PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY FLORIDA



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AND SEALED BY

**AMMONIA FEED SYSTEM AND
RESIDUAL MONITORING P&ID**

ON THE DATE ADJACENT TO THE SEAL

SHEET NUMBER

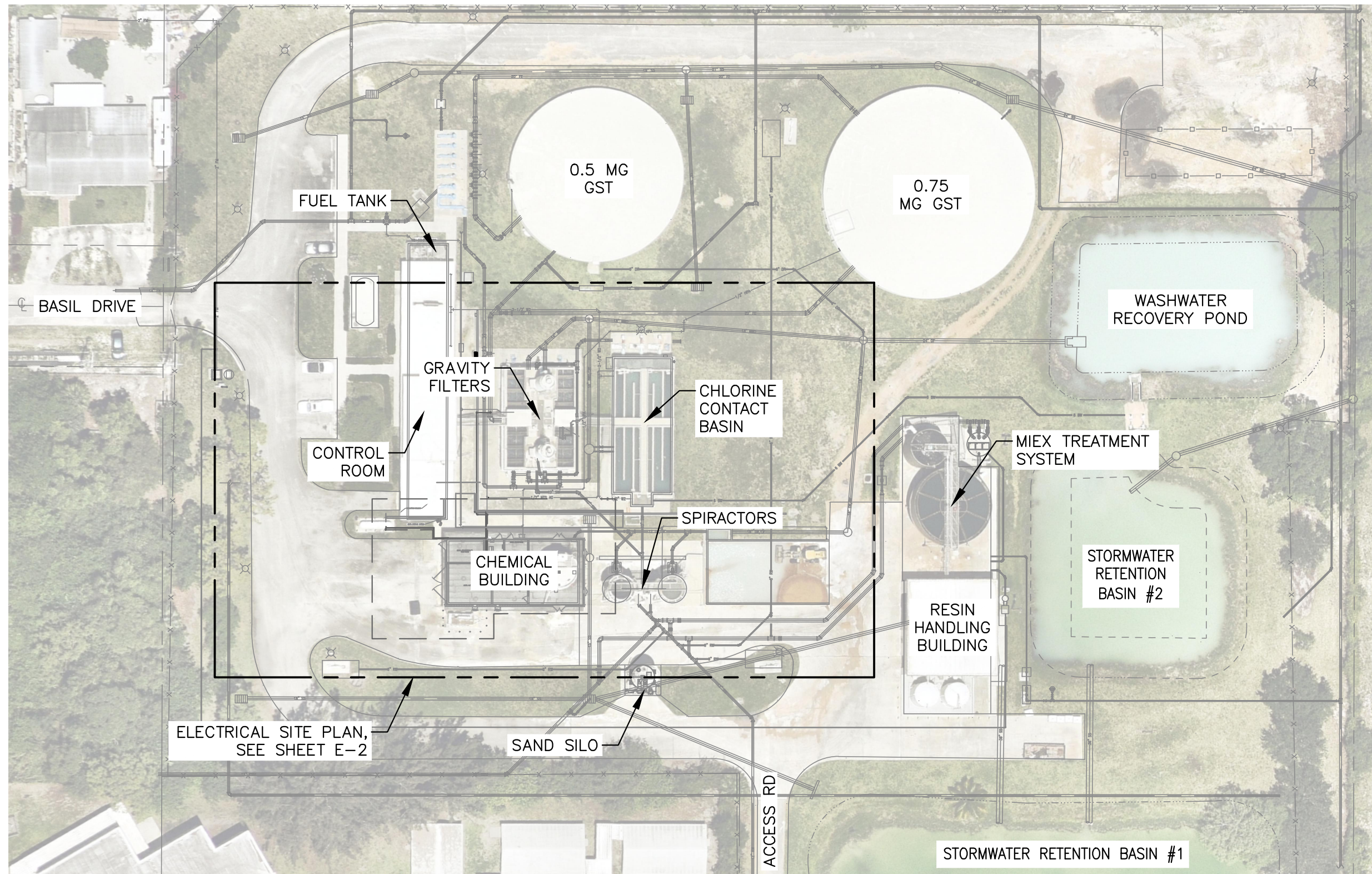
I-2

11 OF 19

GENERAL ELECTRICAL NOTES:

1. GENERAL
 - A. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS INCLUDING ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM.
 - B. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM.
 - C. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS.
 - D. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NFPA, THE LOCAL BUILDING CODES AND PBCWUD LIFT STATION STANDARDS (LATEST REVISION). ALL COMPONENTS SHALL BE U.L. APPROVED.
 - E. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL CONCEALED FACILITIES BEFORE ANY WORK BEGINS.
 - F. CONTRACTOR SHALL COORDINATE WITH POWER COMPANY WHERE THE PROJECT REQUIRES IT.
2. SCOPE OF WORK
 - A. ELECTRICAL DEMOLITION.
 - B. ELECTRICAL INSTALLATION.
 - C. COORDINATION WITH OWNER FOR ANY SHUT DOWNS OF EXISTING SERVICE, INSTALL OF NEW EQUIPMENT.
 - D. STARTUP, TESTING, & TRAINING OF PLANT STAFF.
3. CONDUIT
 - A. CONDUIT SIZES AS SHOWN ON THE DRAWINGS ARE A MINIMUM. THE CONTRACTOR MAY INCREASE AS REQUIRED FOR EASE OF PULLING.
 - B. ALL EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL. CONDUITS SHALL HAVE BURRS REMOVED WITH A REAMER. CONDUITS ENTERING CABINETS SHALL HAVE LOCK NUTS INSIDE AND OUT UNLESS ENTRANCE IS THREADED. NYLON INSULATED BUSHINGS SHALL BE USED ON ALL CONDUIT TERMINATIONS.
 - C. ALL UNDERGROUND CONDUITS SHALL BE INSTALLED 24" BELOW FINAL GRADE.
 - D. PROVIDE CONDUIT SWEEPS TO WETWELL AND OTHER LOCATIONS WHENEVER POSSIBLE, AVOID 90° BENDS.
4. JUNCTION BOXES
 - A. PROVIDE ADDITIONAL BOXES AS MAY BE REQUIRED. PROVIDE NEMA 4X OUTSIDE AND INSIDE IN CHEMICAL ROOMS.
5. CONDUCTORS
 - A. CONDUCTORS SHALL BE COPPER STRANDED TYPE XHHW WITH 75°C RISE INSULATION.
6. GROUNDING
 - A. PROVIDE GROUND SYSTEM AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE NATIONAL ELECTRIC CODE.
 - B. ALL POWER RACEWAYS REQUIRE GROUNDING CONDUCTORS. BONDING CONDUCTORS THROUGH THE RACEWAY SYSTEMS SHALL BE CONTINUOUS FROM MAIN SWITCH GROUND BUSES TO PANEL GROUND BARS, AND FROM PANEL GROUNDING BARS TO BRANCH CIRCUIT OUTLETS, MOTORS, LIGHTS, ETC. THESE GROUND CONDUCTORS ARE REQUIRED THROUGHOUT THE PROJECT REGARDLESS OF WHETHER CONDUIT RUNS SHOW GROUND CONDUCTORS ON THE DRAWINGS.
7. FACILITY SHUT DOWN
 - A. CONTRACTOR SHALL COORDINATE POWER SYSTEM DOWNTIME WITH FPL AND THE OWNER. PROVIDE TEMPORARY BYPASS PUMPING AS REQUIRED BY CONTRACT DOCUMENTS.
8. RESTORATION
 - A. CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITIONS ALL FACILITIES HE DISTURBS. CONTRACTOR SHALL PROVIDE CLEANUP TO ORIGINAL CONDITIONS.
9. WARRANTY
 - A. CONTRACTOR SHALL WARRANT LABOR AND MATERIALS PER THE TERMS IN THE CONTRACT, SEE OTHER SPECIFICATIONS..
10. MATERIALS
 - A. EXCEPT AS INDICATED OR NOTED, ALL MATERIAL SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
 - B. IN CHEMICAL AREAS CONTRACTOR SHALL USE PVC CONDUITS AND PVC FITTINGS, NO RGS ALLOWED.
11. PROGRAMMING
 - A. ALL RTU AND SCADA PROGRAMMING SHALL BE PROVIDED BY THE I&C CONTRACTOR.
12. SCHEMATIC NATURE
 - A. PLANS ARE SCHEMATIC IN NATURE AND MEANT TO SHOW THE SCHEMATIC ARRANGEMENT OF EQUIPMENT AND CONDUIT. ELECTRICAL SITE PLAN IS NOT BASED ON SURVEY. PLAN IS AN APPROXIMATION BASED ON FIELD MEASUREMENTS. CONTRACTOR SHALL MEET ALL N.E.C. CLEARANCE REQUIREMENTS.
13. CLEARANCES
 - A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MEET N.E.C. CLEARANCES ABOUT EQUIPMENT. THE SAME APPLIES TO RACEWAY SUPPORTS.

- A. CONDUIT ROUTING IS SCHEMATIC IN NATURE. CONDUIT ROUTING IS SHOWN FOR CLARITY ON THE CONTRACT DRAWINGS. ROUTE CONDUITS AS MAY BE REQUIRED.
15. RESPONSIBILITIES
 - A. BIDDERS, SUPPLIERS, EQUIPMENT VENDORS, GENERAL CONTRACTOR, SUB CONTRACTORS AND OTHER SIMILAR ENTITIES ARE REQUIRED TO READ ALL THE CONTRACT DOCUMENTS INCLUDING DRAWINGS AND SPECIFICATIONS.
 - B. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE NEC AND ITS APPLICATION TO THE INSTALLATION ENVIRONMENT.
16. HOMERUNS
 - A. CONTRACTOR SHALL COORDINATE HOME RUNS BETWEEN PLAN VIEWS. WHERE ANY CONDUIT IS SHOWN IN ANY PLAN VIEW IT SHALL BE INSTALLED THE ENTIRE LENGTH AS MAY BE REQUIRED.
17. ELECTRICAL SERVICE
 - A. CONTRACTOR SHALL PROVIDE POWER CO. COORDINATION, LABOR, AND ALL MATERIALS AS REQUIRED. THIS SHALL INCLUDE DEMOLITION OF EXISTING SERVICE, DIRECTIONAL BORING, AND/OR CUTTING AND PATCHING, AND RESTORATION OF ALL AREAS TO ORIGINAL CONDITIONS.
18. READ THE SPECIFICATIONS
 - A. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. THERE ARE REQUIREMENTS NOTED IN THE SPECIFICATIONS WHICH ARE NOT INDICATED ON THE DRAWINGS.
19. APPROVED SHOP DRAWINGS
 - A. USE APPROVED SHOP DRAWINGS FOR LAY OUT OF EQUIPMENT. THE CONTRACT DOCUMENTS WILL VARY FROM THE SHOP DRAWINGS. INFORM THE ENGINEER IMMEDIATELY IF THERE ARE LAY OUT ISSUES OR INADEQUATE SPACE FOR EQUIPMENT OR CLEARANCES. LAND CONDUITS IN OPENINGS OF ENCLOSURES PER THE APPROVED SHOP DRAWINGS, DO NOT USE THE CONTRACT DRAWINGS.
20. FUTURE FACILITIES
 - A. WHERE FUTURE FACILITIES ARE INDICATED. CONDUIT ROUTING SHALL ACCOUNT FOR SUCH FACILITIES.



RL PRATT WATER TREATMENT PLANT OVERALL SITE PLAN

SCALE AS NOTED

MATERIAL SCHEDULE

LOCATION	CONDUIT	ENCLOSURE MATERIALS	ENCLOSURE NEMA RATING	FASTENERS, STRUT, THREADED ROD, ETC.	REMARKS
INTERIOR					
EXPOSED IN AIR CONDITIONED EQUIPMENT ROOMS	ALUMINUM	PAINTED STEEL	1	316 SS	
EXPOSED IN PUMP ROOMS, EQUIPMENT ROOMS, ETC. (NOT AIR CONDITIONED)	PVC SCHED. 80	316 SS	1A GASKETED	316 SS	
EXPOSED IN CHEMICAL ROOMS ETC.	PVC SCHED. 80	316 SS/FIBERGLASS	4X	316 SS	PVC COATED FITTINGS
CONCEALED IN BLOCK WALLS, POURED CONCRETE WALLS, ETC.	PVC SCHED. 40	N/A	N/A	316 SS	
EXTERIOR					
BELOW GRADE	PVC SCHED. 40	CONCRETE BOXES	N/A	316 SS	
ABOVE GRADE	PVC SCHED. 80	316 SS	4X	316 SS	

GENERAL NOTES

1. THE FOLLOWING SHALL ESTABLISH THE MINIMUM LEVEL OF QUALITY FOR MATERIALS.
2. THE FOLLOWING SHALL APPLY UNLESS OTHERWISE INDICATED BY DRAWINGS.
3. THE FOLLOWING SHALL NOT APPLY TO POWER TRANSFORMERS, LIGHT FIXTURES AND LIGHT POLES, THOSE ELEMENTS ARE NOTED OR INDICATED ELSEWHERE.

LEGEND

N/A	NOT APPLICABLE
316 SS	316 STAINLESS STEEL
EMT	ELECTRICAL METALLIC TUBING, GALV. STEEL
ALUMINUM	ALUMINUM RIGID CONDUIT 6063 ALLOY, NOT ALUMINUM EMT

ELECTRICAL ABBREVIATIONS

37C	37 CONDUCTOR CABLE	HOR	HAND-OFF-REMOTE	RGA	RED, GREEN, AMBER PILOT LIGHT
ATB	ANALOG TERMINAL BOX	LAG	LIGHTNING ARRESTER	RGS	RIGID GALV. STEEL
CR	CONTROL RELAY	LOR	LOCAL-OFF-REMOTE	RO	READ OUT
CP	CONTROL PANEL	M	MOTOR STARTER	SA	SURGE ARRESTER
CPB	CONTROL PULL BOX	MB+	MODBUS PLUS	SS	SELECTOR SWITCH OR
CS	CONTROL STATION	MCC	MOTOR CONTROL CENTER		316 STAINLESS STEEL
CTB	CONTROL TERM. BOX	MLO	MAIN LUG ONLY	SWBD	SWITCH BOARD
DISC	DISCONNECT SWITCH	NF	NON FUSED OR	STB	SIGNAL TERMINAL BOX
DMM	DIGITAL MULTIMETER		NANO FILTRATION	TC	TIME CLOCK OR
DS	DOOR SWITCH	OHU	OVER HEAD ELEC UTILITIES		TRAY CABLE
DTB	DISCRETE TERMINAL BOX	OL	OVER LOAD RELAY	TOT	TOTALIZER
EN	ETHERNET	PB	PUSH BUTTON	TS	TEST SWITCH
ETM	ELAPSED TIME METER	PDP	PANEL DIST. PANEL	VCP	VENDOR CP
F	FUSE	PM	POWER MONITOR	VFD	VARIABLE FREQUENCY DRIVE
FO	FIBER OPTIC	PNLBD	PANELBOARD	WP	WEATHER PROOF
FO-E	FIBER OPTIC ETHERNET	PPB	POWER PULL BOX	WW	WIRE WAY
FSA	FIELD SURGE ARRESTOR	PSA	PANEL SURGE ARRESTOR	WWCP	WET WELL CONTROL PANEL
FWP	FIELD WATER PUMP	PSCP	PUMP STATION CONTROL PANEL	ZSL	POSITION SWITCH CLOSED
GF1	GROUND FAULT INTERRUPTER	PTB	POWER TERMINAL BOX	ZSO	POSITION SWITCH OPEN
HOA	HAND-OFF-AUTO				

CONDUIT LEGEND

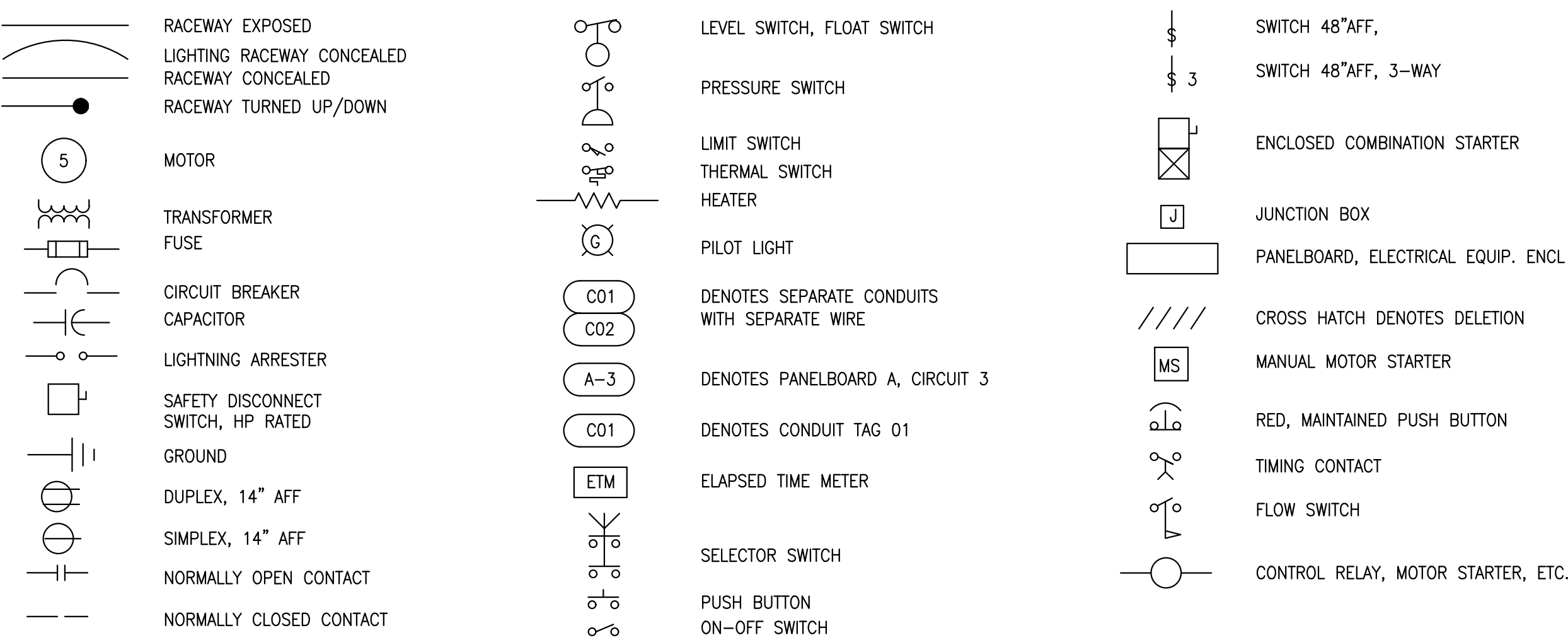
6 TSP, 1#14, 1-1/2" C

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graph LR; A["6 TSP, 1#14, 1-1/2\" C"] --- B["CONDUIT SIZE"]; A --- C["1 #14 WIRE"]; C --- D["6 TWISTED SHIELDED PAIRS"]
```

CONDUIT SIZE

1 #14 WIRE

6 TWISTED SHIELDED PAIRS



No.	REVISIONS	DATE	BY



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WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT 140593011	
DATE JUN 2024	
SCALE AS SHOWN	
DESIGNED BY	JLR
DRAWN BY	YGC
CHECKED BY	MAG

RL PRATT WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

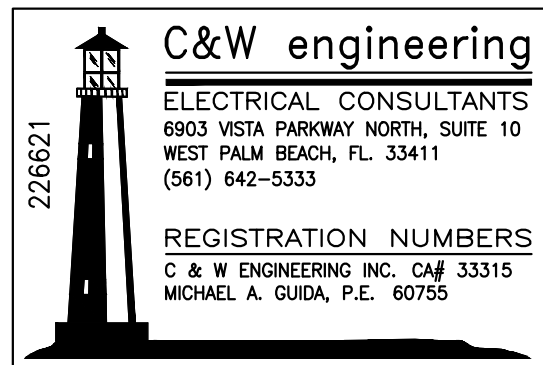
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ELECTRICAL NOTES & LEGEND

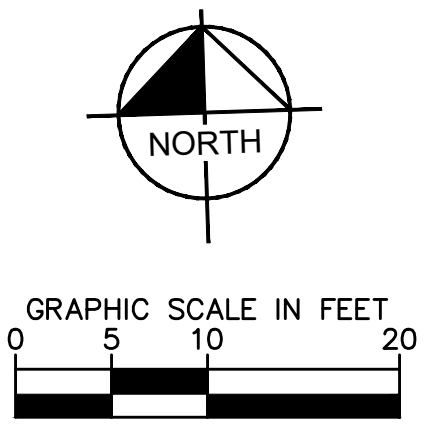
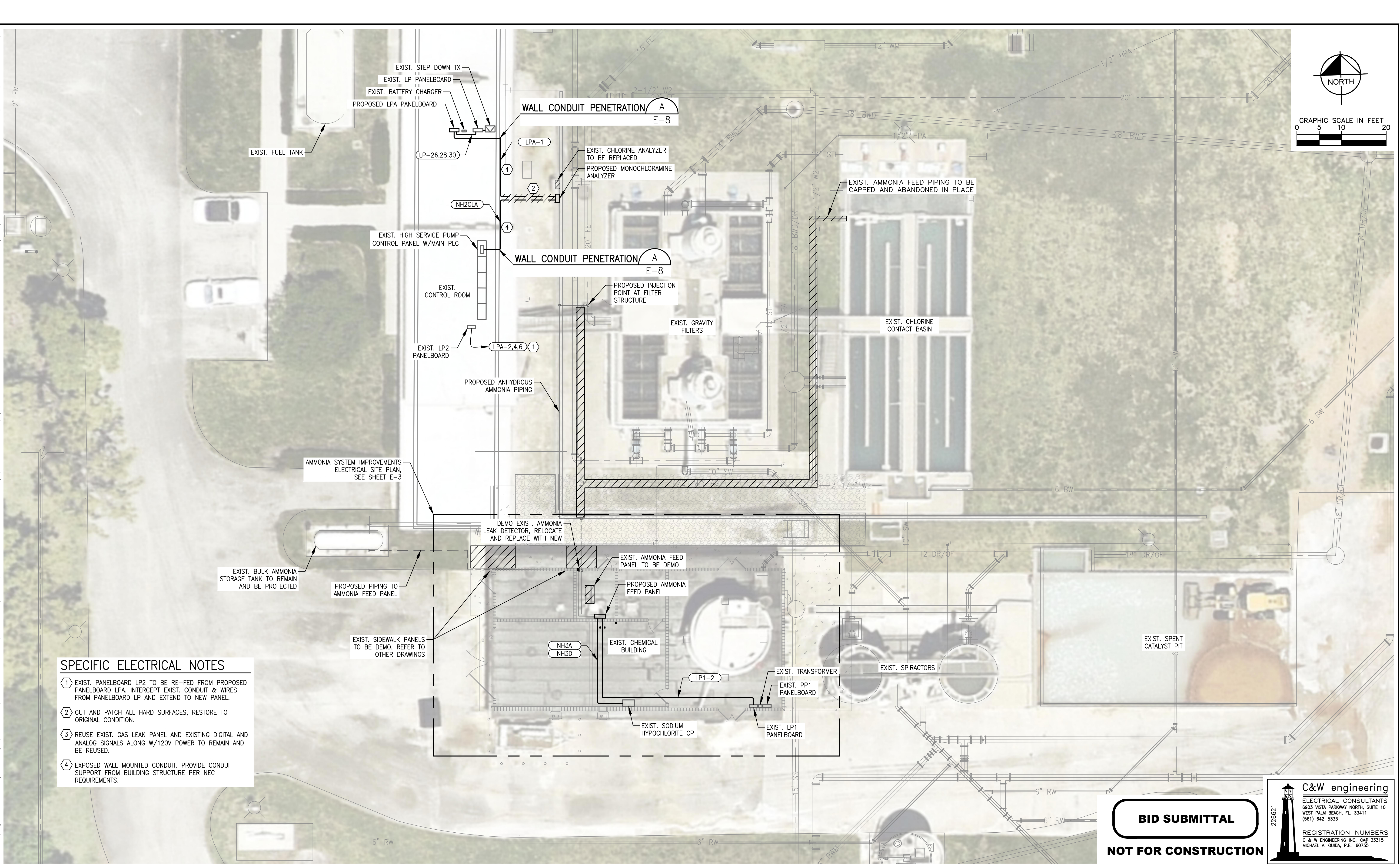
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12 OF 19



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SPECIFIC ELECTRICAL NOTES

- EXIST. PANELBOARD LP2 TO BE RE-FED FROM PROPOSED PANELBOARD LPA. INTERCEPT EXIST. CONDUIT & WIRES FROM PANELBOARD LP AND EXTEND TO NEW PANEL.
- CUT AND PATCH ALL HARD SURFACES, RESTORE TO ORIGINAL CONDITION.
- REUSE EXIST. GAS LEAK PANEL AND EXISTING DIGITAL AND ANALOG SIGNALS ALONG W/120V POWER TO REMAIN AND BE REUSED.
- EXPOSED WALL MOUNTED CONDUIT. PROVIDE CONDUIT SUPPORT FROM BUILDING STRUCTURE PER NEC REQUIREMENTS.

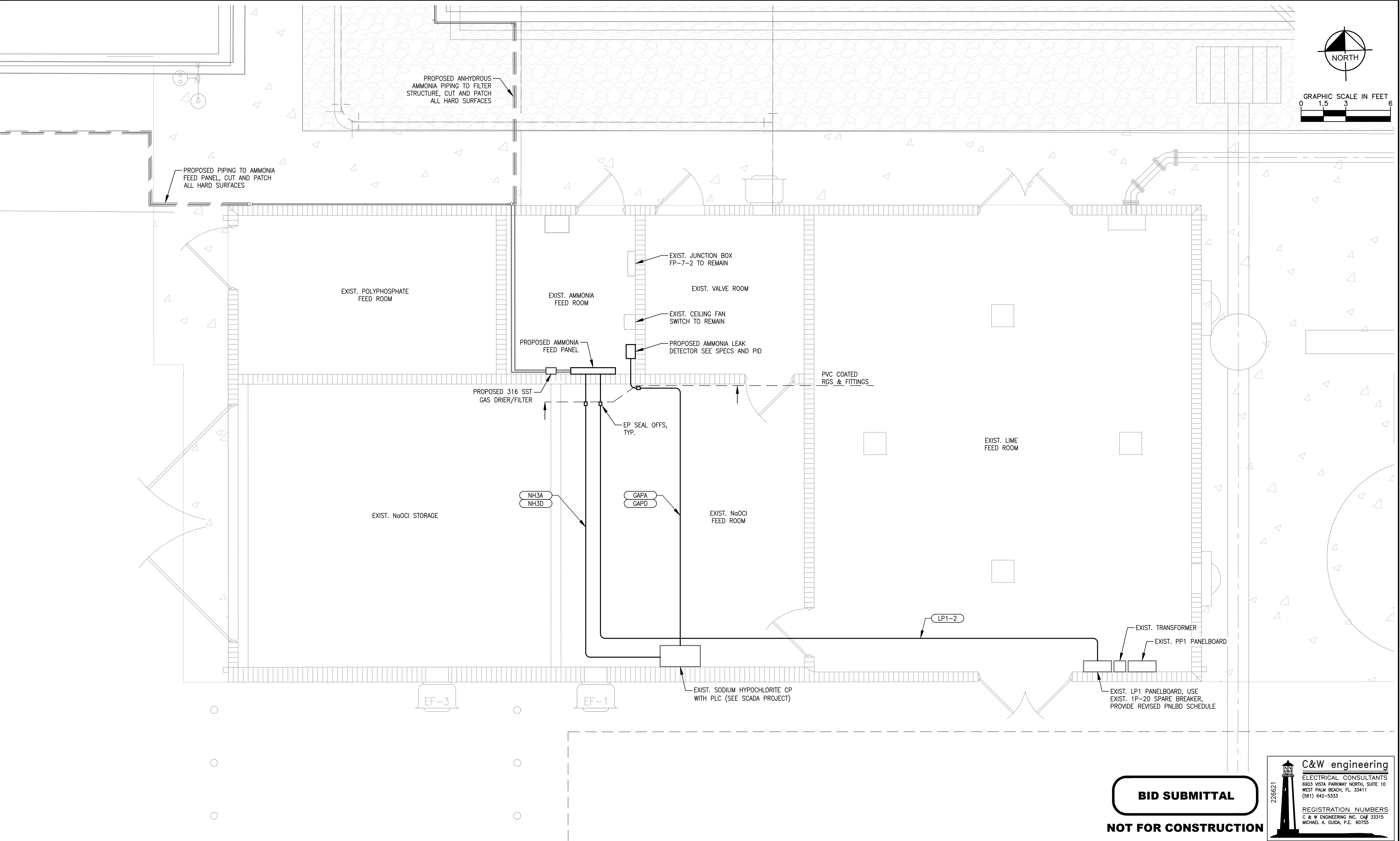
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MICHAEL A. GUIDA, P.E. 60755

Plotted By: Yoon Sheet Set:					Kimley»Horn © 2023 KIMLEY-HORN AND ASSOCIATES, INC. 1920 WEKIVA WAY SUITE 200, WEST PALM BEACH, FL 33411 PHONE: 561-845-0665 FAX: 561-863-8175 WWW.KIMLEY-HORN.COM REGISTRY NO. 35106 KHA PROJECT 140593011 DATE JUN 2024 SCALE AS SHOWN DESIGNED BY JLR DRAWN BY YGC CHECKED BY MAG	RL PRATT WTP AMMONIA FEED SYSTEM IMPROVEMENTS PREPARED FOR VILLAGE OF PALM SPRINGS PALM BEACH COUNTY FLORIDA	LICENSED PROFESSIONAL MICHAEL A. GUIDA FLORIDA LICENSE NUMBER 60755 DATE: _____	ELECTRICAL SITE PLAN	SHEET NUMBER E-2 13 OF 19
No.	REVISIONS	DATE	BY						

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KHA PROJECT 140593011
DATE JUN 2024
SCALE AS SHOWN
DESIGNED BY JLR
DRAWN BY YGC
CHECKED BY MAG

RL PRATT WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

DATE: _____

AMMONIA SYSTEM IMPROVEMENTS ELECTRICAL SITE PLAN

SHEET NUMBER

E-3

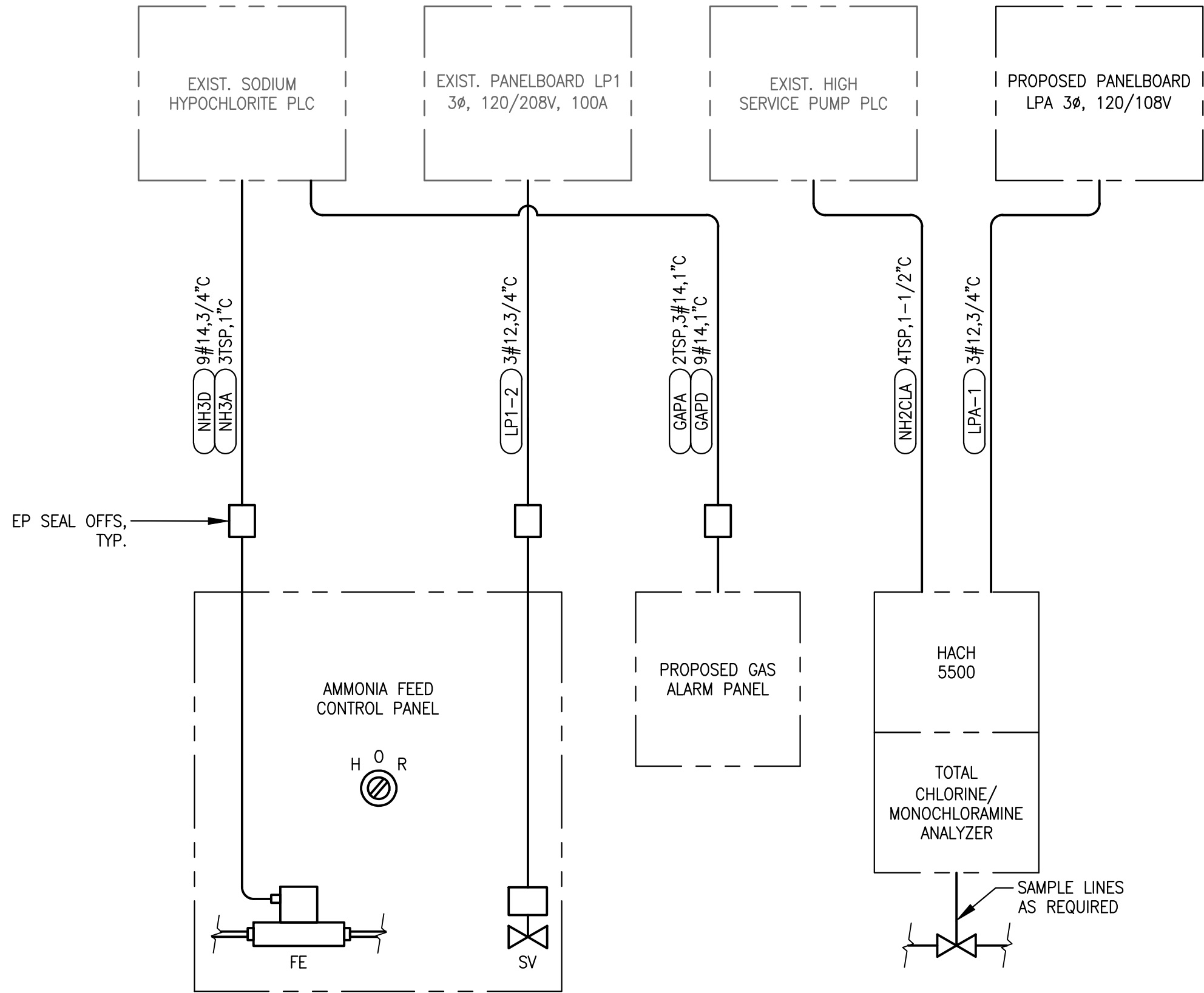
14 OF 19

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120/208V, 3Ø PANELBOARD LP1 LOAD CALCULATION		
DESCRIPTION	AMPS	
EXISTING LOAD 57A X 125%	71.25	
PER NEC 220.87		
PROPOSED NEW LOAD	3.50	
TOTAL	74.75	
100A PANELBOARD		

120/208V, 3Ø PANELBOARD LP LOAD CALCULATION		
DESCRIPTION	AMPS	
EXISTING LOAD 130A X 125%	162.50	
PER NEC 220.87		
PROPOSED NEW LOAD	20.00	
TOTAL	182.50	
225A PANELBOARD		



POWER & CONTROLS RISER DIAGRAM

NTS

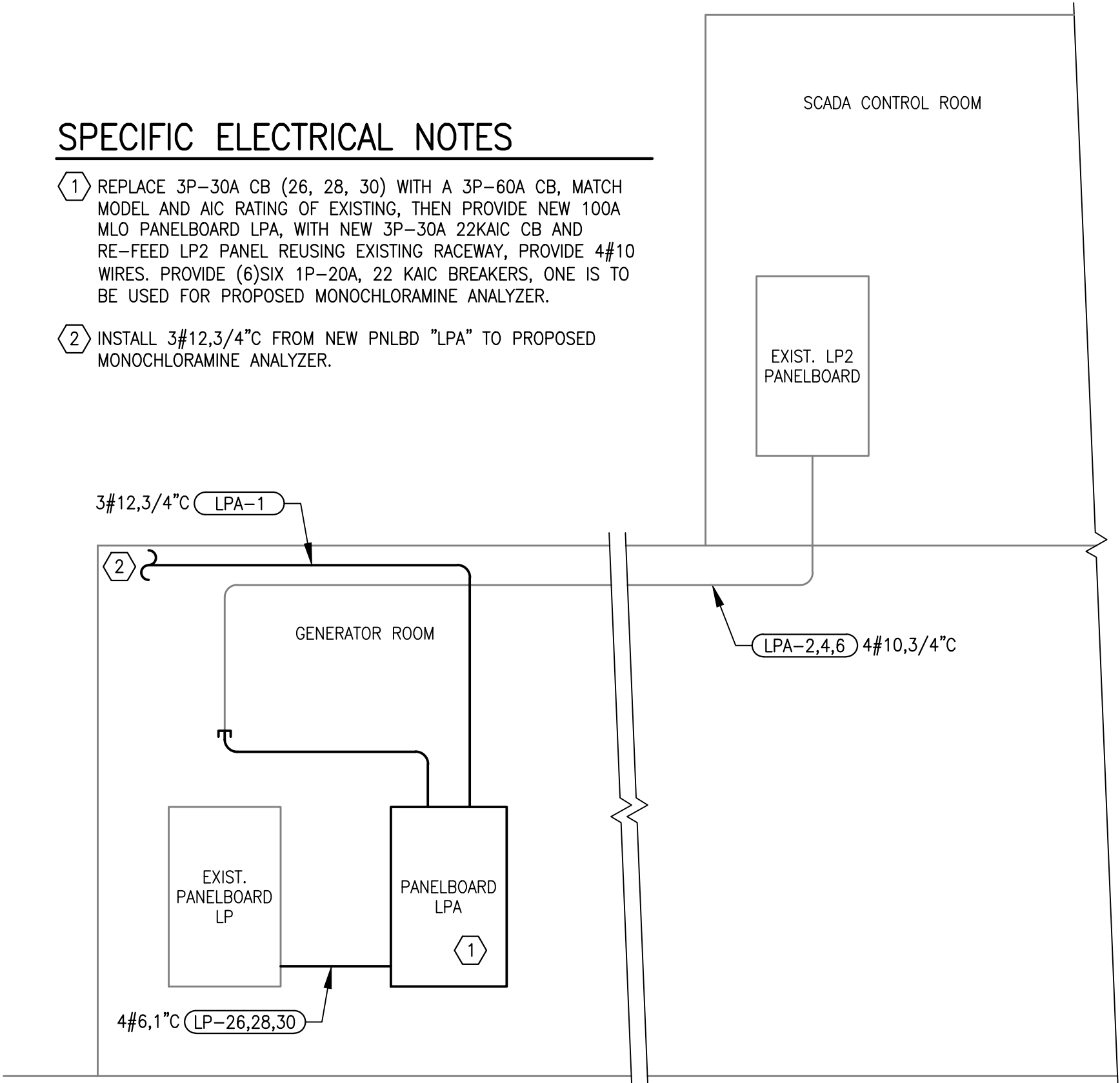
PANELBOARD SCHEDULE LPA

WIRE SIZE	COND SIZE	BUS AMPS			LOAD	POLES	AMPS	BUS			AMPS	POLES	LOAD	BUS AMPS			WIRE SIZE	COND SIZE
		A	B	C				A	B	C				A	B	C		
3#12	3/4"	2			MONOCHLORAMINE ANALYZER	1	20	1	2		30	3	TO LP2 PANELBOARD	18			4#10	3/4"
					SPARE	1	20		3						18			
					SPARE	1	20		5							18		
					SPARE	1	20		7									
					SPARE	1	20		9									
					SPARE	1	20		11									

RATED VOLTAGE: ☒ 120/208 ☐ 277/480 3ø, 4 WIRE				BRANCH POLES: ☒ 12 ☐ 20 ☐ 30 ☐ 42				APPROVED MFR'S. CUTLER HAMMER, ITE, SQD OR GE ONLY					
RATED AMPS: ☒ 100 ☐ 225 ☐ 400				CABINET: ☒ SURFACE ☐ FLUSH				NEMA ☐ 1 ☒ 3R ☐ 4X					
☐ MAIN LUGS ONLY		MAIN <u> </u> AMPS		☒ BREAKER		☐ FUSED SWITCH		☒ HINGED DOOR		☒ KEYED DOOR LATCH			
☐ FUSED		☒ CIRCUIT BREAKER (BOLT-IN)		BRANCH DEVICES		☐ _____ TO BE GFI BREAKERS		FULL NEUTRAL BUS		GROUND BUS			
ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 22,000 AMPS SYMMETRICAL.													

SPECIFIC ELECTRICAL NOTES

- REPLACE 3P-30A CB (26, 28, 30) WITH A 3P-60A CB, MATCH MODEL AND AIC RATING OF EXISTING, THEN PROVIDE NEW 100A MLO PANELBOARD LPA, WITH NEW 3P-30A 22KAIC CB AND RE-FEED LP2 PANEL REUSING EXISTING RACEWAY, PROVIDE 4#10 WIRES. PROVIDE (6)SIX 1P-20A, 22 KAIC BREAKERS, ONE IS TO BE USED FOR PROPOSED MONOCHLORAMINE ANALYZER.
- INSTALL 3#12,3/4"C FROM NEW PNLD "LPA" TO PROPOSED MONOCHLORAMINE ANALYZER.



CONTROL BUILDING 120/208V POWER RISER DIAGRAM

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KHA PROJECT	140593011
DATE	JUN 2024
SCALE	AS SHOWN
DESIGNED BY	JLR
DRAWN BY	YGC
CHECKED BY	MAG

RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

DATE: _____

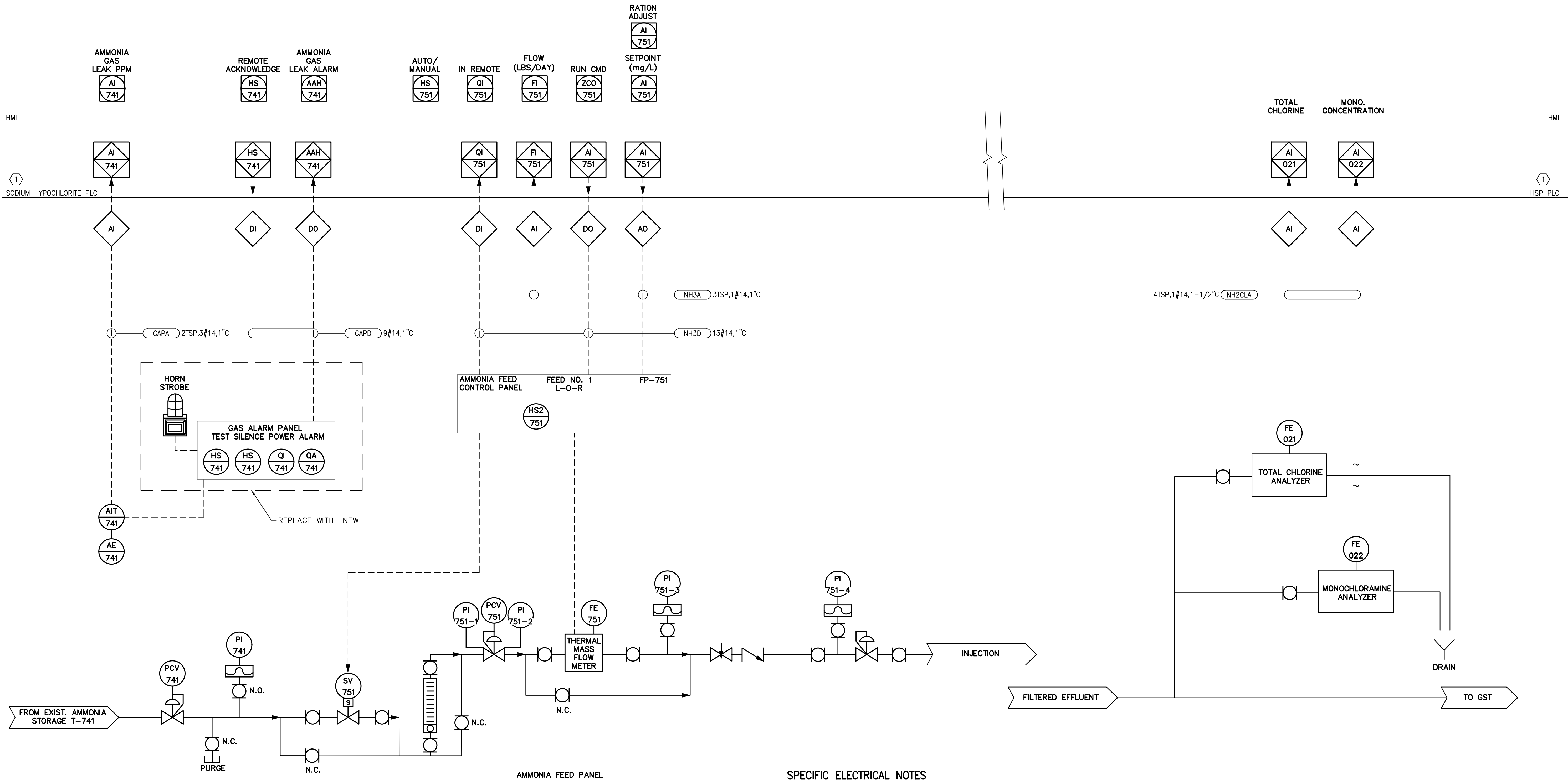
ELECTRICAL POWER &
CONTROLS RISER DIAGRAMS

SHEET NUMBER

E-4

15 OF 19

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SPECIFIC ELECTRICAL NOTES

- 1 ALL EXISTING PLC PANELS SHALL BE UPGRADED UNDER THE PLC & SCADA UPGRADE PROJECT FOR THE R.L. PRATT PLANT. (REFER TO SEPARATE PROJECT)

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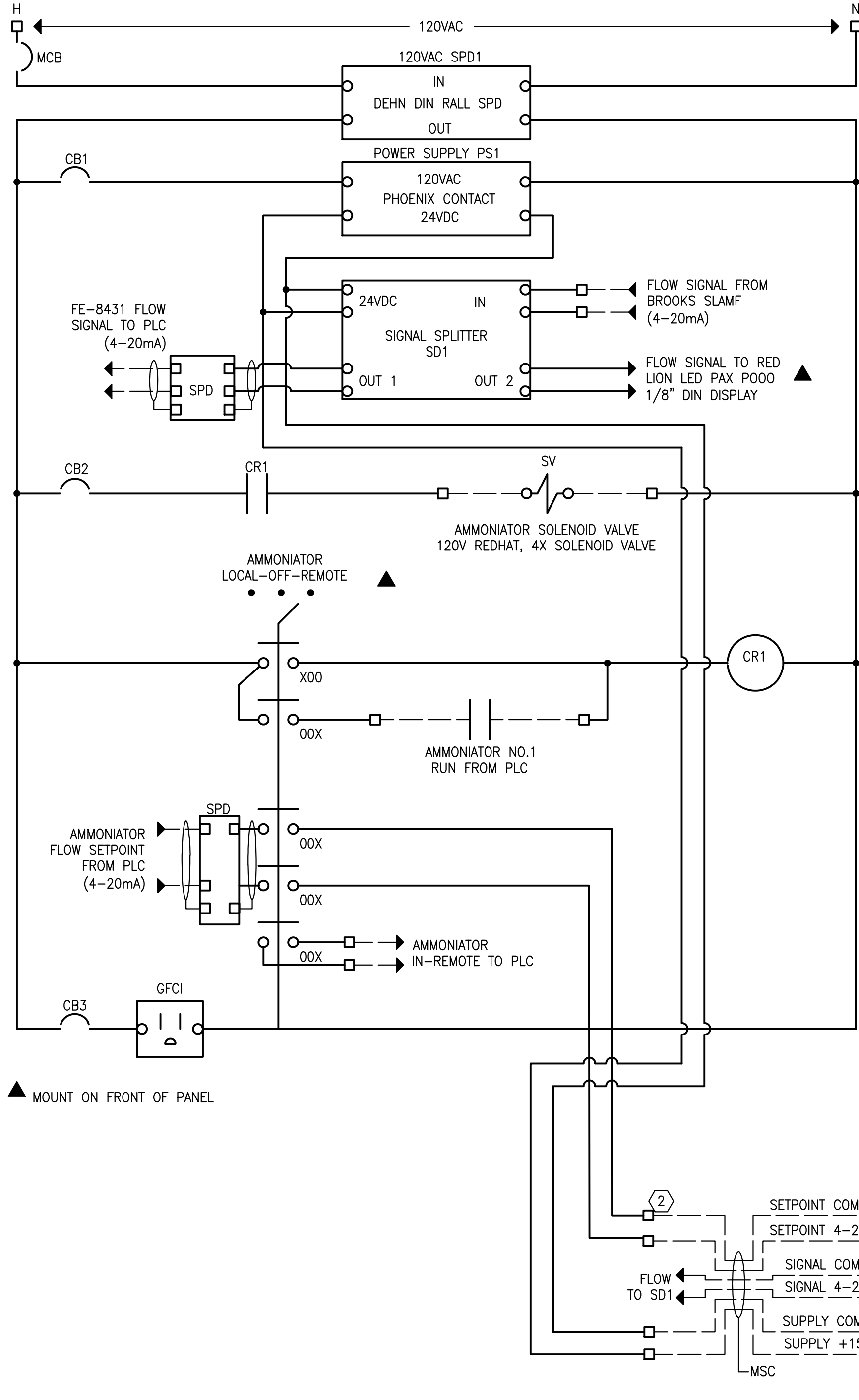
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PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA

LICENSED PROFESSIONAL
MICHAEL A. GUIDA
FLORIDA LICENSE NUMBER 60755
DATE: _____

AMMONIA FEED SYSTEM P&ID CODUIT TAGS

SHEET NUMBER
E-5
16 OF 19

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SPECIFIC ELECTRICAL NOTES

- 1) I&C CONTRACTOR SHALL USE THE AMMONIA CONTROLLER WIRING AS GUIDANCE ONLY AND ADJUST THE WIRING BASE ON THE ACTUAL EQUIPMENT AND CABLE TYPE SUPPLIED WITHOUT ADDITIONAL COST TO THE VILLAGE, IT IS CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BREAKERS, POWER SUPPLY, SURGE PROTECTIVE DEVICES, RELAYS, SPD DEVICES, SIGNAL SPLITTERS, SELECTOR SWITCHES, RELAYS, TERMINAL BLOCKS, WIRING, ETC. FOR A COMPLETE AND FUNCTIONAL AMMONIA CONTROLLER SYSTEM IN PLACE.
- 2) NOT ALL SURGE PROTECTIVE DEVICES SHOWN FOR CLARITY. FURNISH AND INSTALL SURGE PROTECTIVE DEVICE, PHOENIX CONTACT PLUGTRAB SERIES, OR APPROVED EQUAL BROOKS LOW MASS FLOWMETERS, WHICH EXTEND BEYOND THE CONTROL PANEL WITH SAMPLE LINES.

1 2 AMMONIA FEED CONTROL PANEL SCHEMATIC

NTS, UL508

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KHA PROJECT
140593011

DATE
JUN 2024

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DESIGNED BY JLR

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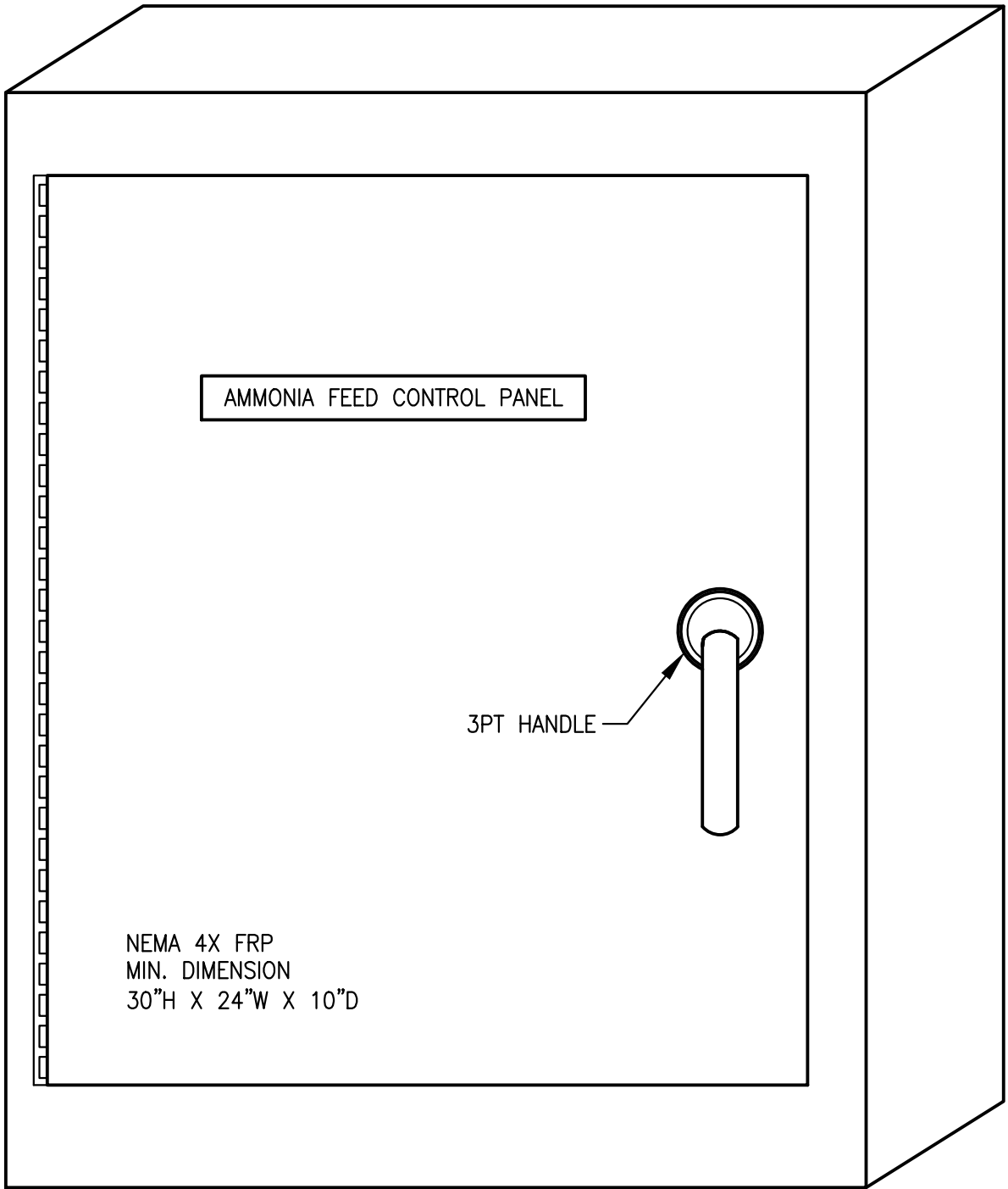
AMMONIA FEED CONTROL
PANEL SCHEMATICS

SHEET NUMBER

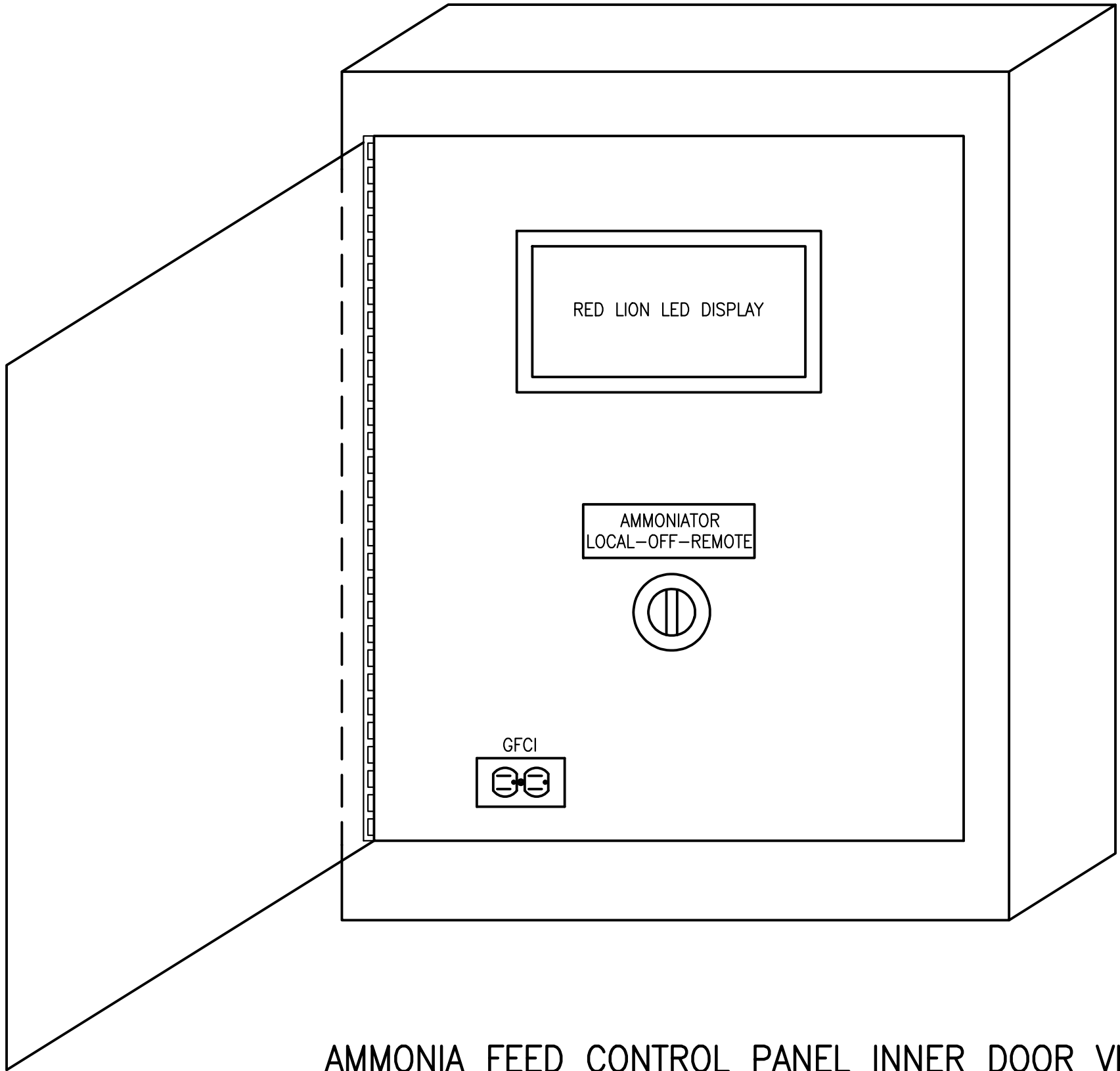
E-6

17 OF 19

Plotted By: Yoon, Sheet Set: RL Pratt WTP Ammonia Feed System Improvements, Layout: CP DET, June 28, 2024, 09:08:03am, \\10.10.26\DW_Dropbox\KHA\226621_VPS_MAIN_WTP_AND_PRATT_WTP_AMMONIA_SYSTEM_DESIGN\DRAWINGS\VPS_PRATT_WTP_AMMONIA\02-Electrical_Details.dwg
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AMMONIA FEED CONTROL PANEL DEADFRONT VIEW
NTS



AMMONIA FEED CONTROL PANEL INNER DOOR VIEW
NTS

GENERAL ELECTRICAL NOTES

- SEE DRAWING E-6 FOR WIRING DIAGRAM.
- THE FLOW CONTROLLER USES ANALOG & POWER TERMINALS TO INTERFACE WITH FIELD DEVICES. THE CONTRACTOR SHALL COORDINATE ACCORDINGLY AND LAND ALL FIELD WIRING ON FIELD TERMINAL BLOCK. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INTERFACING WITH FIELD DEVICES.
- ENCLOSURE SHALL BE DEAD FRONT CONSTRUCTION WITH 3-POINT LATCH, HANDLE AND SWINGING INNER DOOR KIT.
- ALL FIELD WIRING SHALL BE TERMINATED ON A FIELD TERMINAL BLOCK OR SURGE PROTECTIVE DEVICE.
- THE CONTRACTOR SHALL FURNISH AND INSTALL MANUFACTURER'S RECOMMENDED CABLES AND FOLLOW THEIR RECOMMENDATION FOR TERMINATIONS BETWEEN THE MASS FLOW CONTROLLER AND THE PLC I/O. COORDINATE REQUIREMENTS WITH INSTALLING CONTRACTOR.
- THE INPUT TO THE CONTROL PANEL WILL BE 120VA, 1-PHASE 60HZ AND SUPPLIED BY DIVISION 16. ALL OTHER VOLTAGES SHALL BE DERIVED FROM WITHIN THE CONTROL PANEL.
- THE FLOW CONTROLLER SHALL BE INSTALLED WITH OPTIONAL PANEL MOUNT KIT AND 24VDC POWER SUPPLY.
- THE CONTROL PANEL SHALL BE CONSTRUCTED BY A UL508A PANEL SHOP AND BEAR A UL508A LABEL.
- FURNISH AND INSTALL PHENOLIC TAGS FOR PANEL AND SELECTOR SWITCH.

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226621

C&W engineering
ELECTRICAL CONSULTANTS
6903 VISTA PARKWAY NORTH, SUITE 10
WEST PALM BEACH, FL. 33411
(561) 642-5333

REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

No.	REVISIONS	DATE	BY

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PHONE: 561-845-0665 FAX: 561-863-8175
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT	140593011
DATE	JUN 2024
SCALE	AS SHOWN
DESIGNED BY	JLR
DRAWN BY	YGC
CHECKED BY	MAG

RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

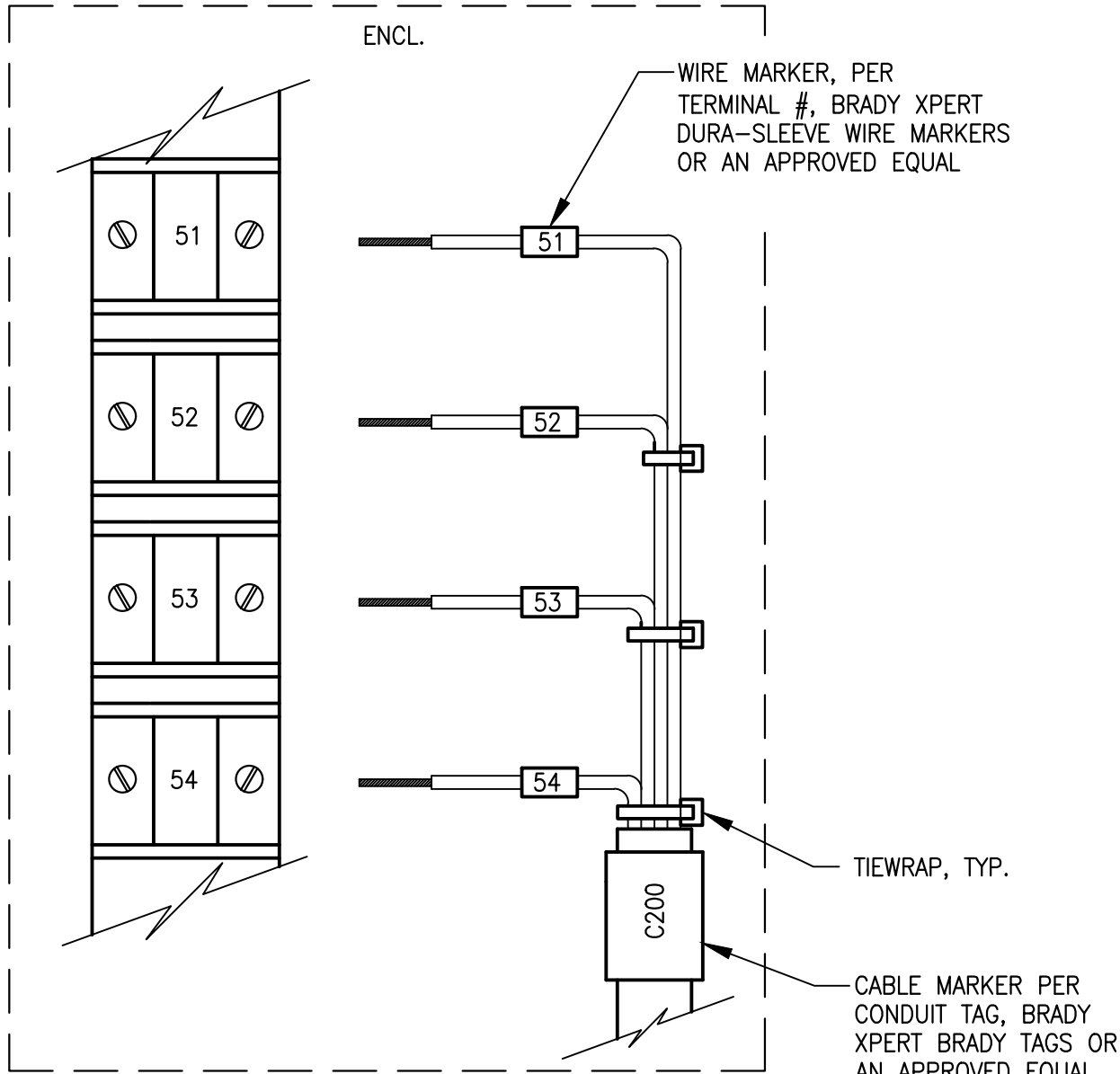
AMMONIA FEED CONTROL
PANEL DETAILS

SHEET NUMBER

E-7

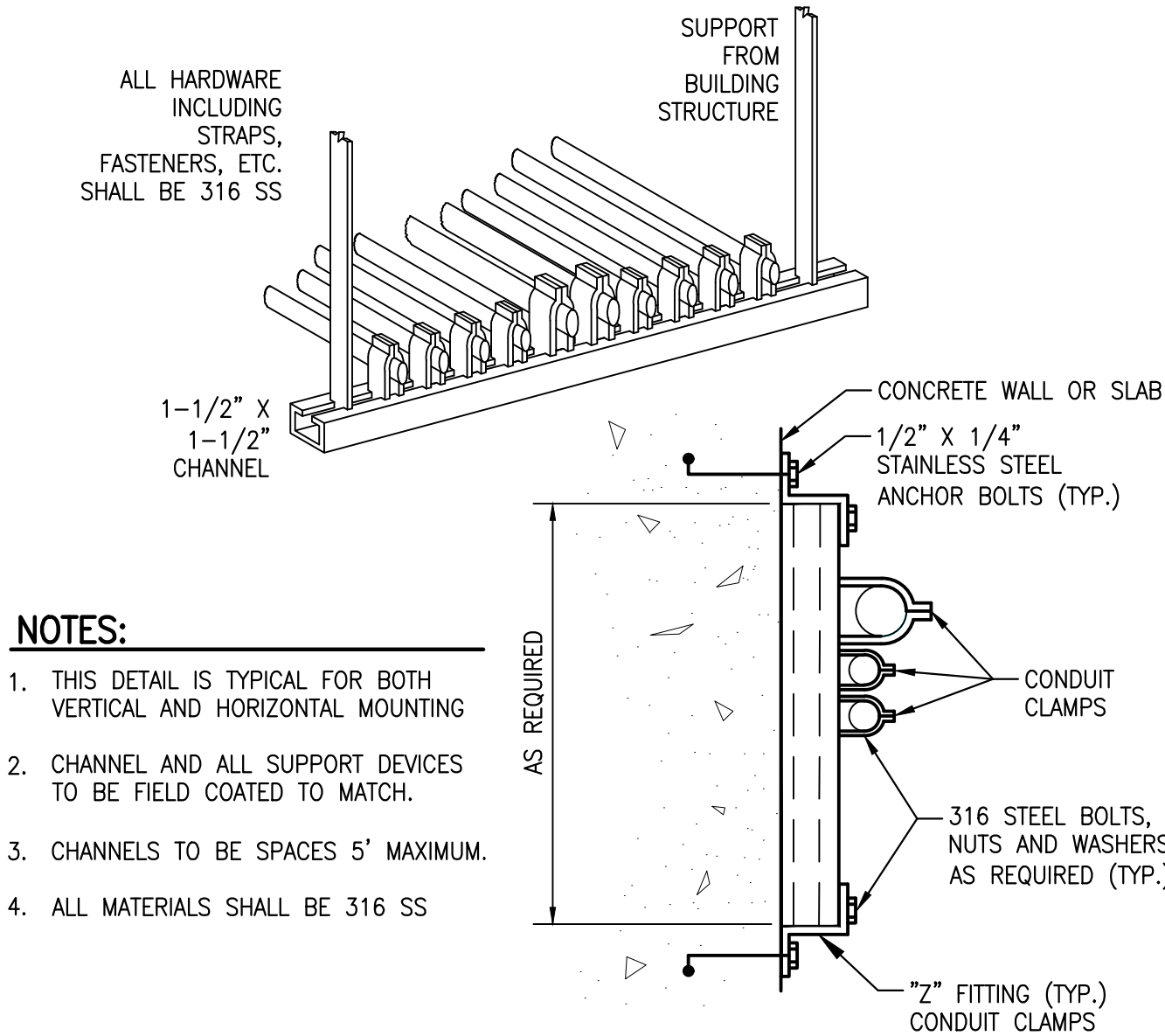
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TERMINATION EXAMPLE DETAIL

NTS

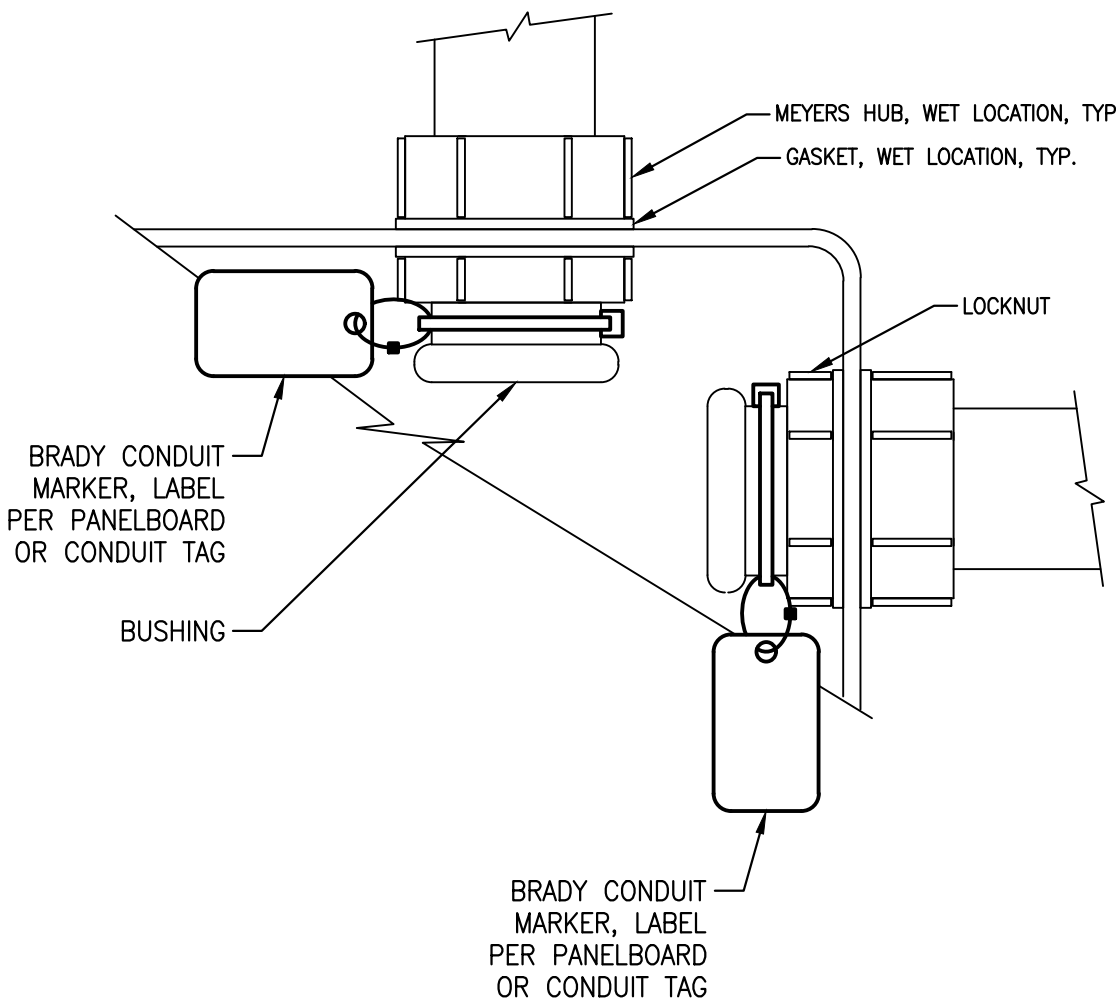


NOTES:

1. THIS DETAIL IS TYPICAL FOR BOTH VERTICAL AND HORIZONTAL MOUNTING
2. CHANNEL AND ALL SUPPORT DEVICES TO BE FIELD COATED TO MATCH.
3. CHANNELS TO BE SPACES 5' MAXIMUM.
4. ALL MATERIALS SHALL BE 316 SS

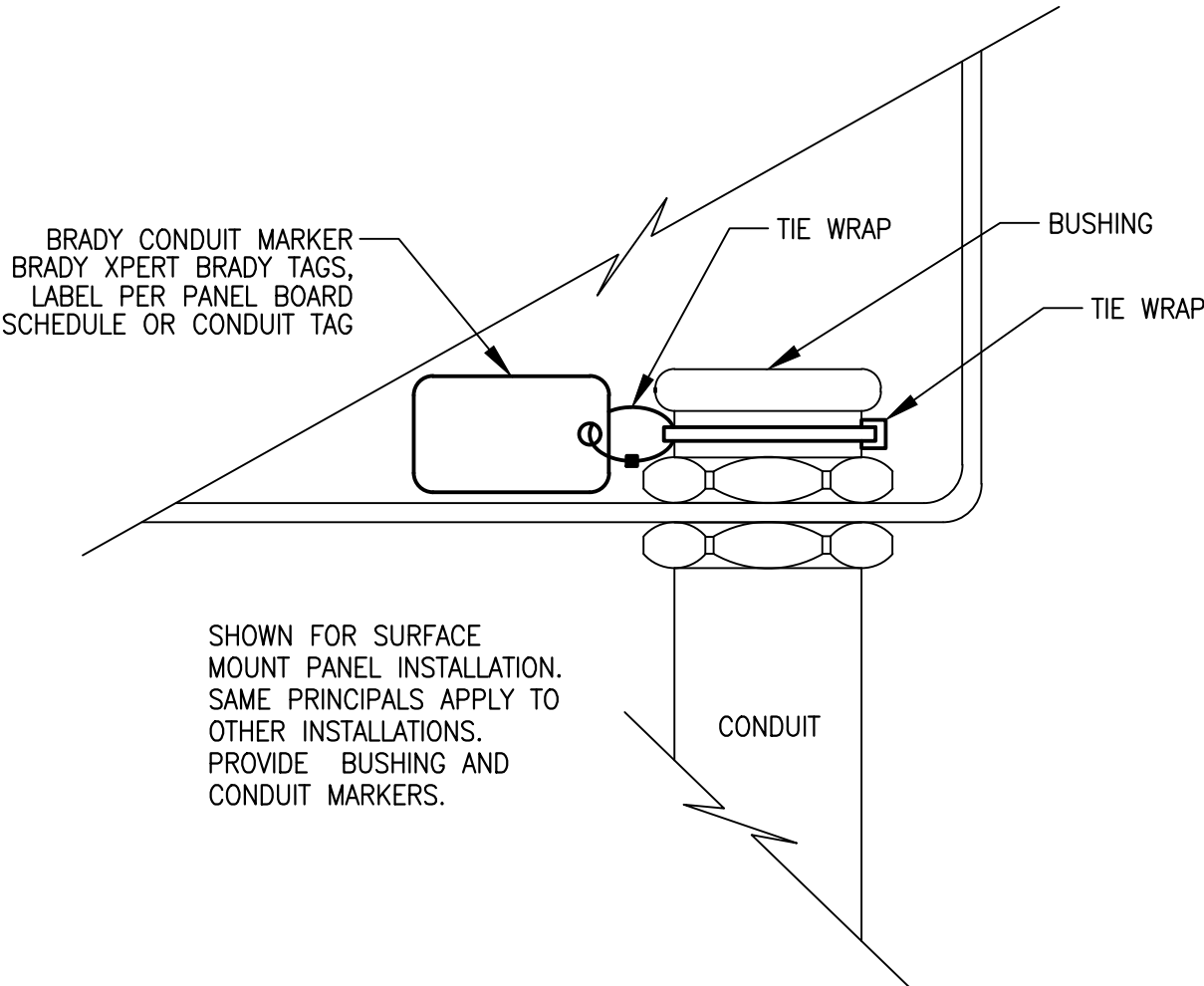
INSTALLATION DETAIL

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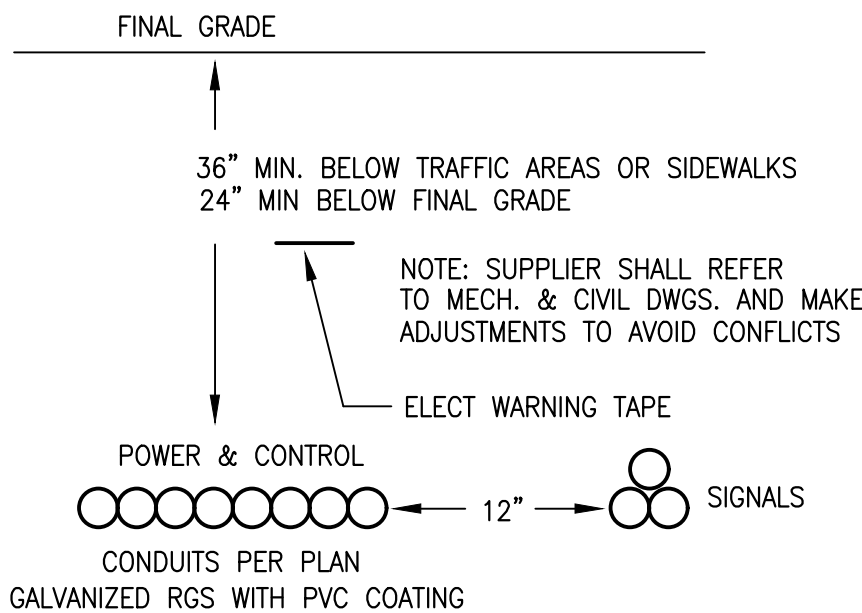
CONDUIT TERMINATION DETAIL

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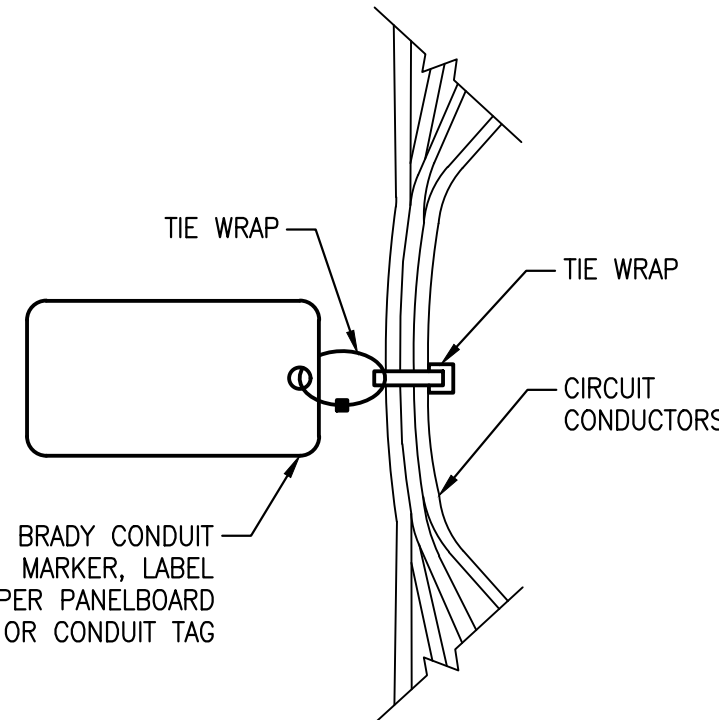
CONDUIT DETAIL

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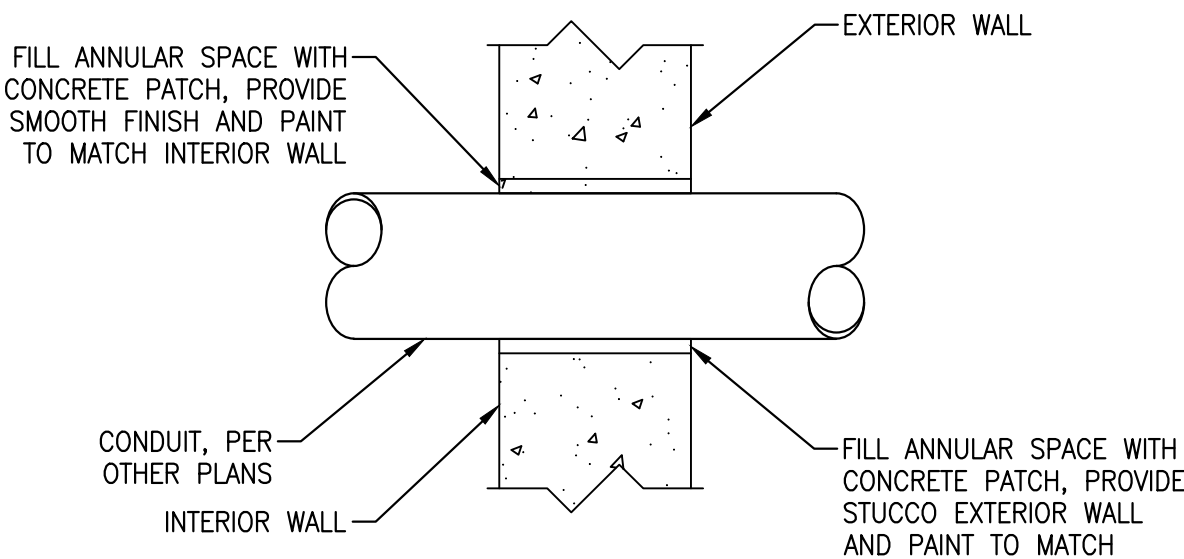
DIRECT BURIED CONDUIT

NTS



CIRCUIT MARKER DETAIL

NTS



WALL CONDUIT PENETRATION DETAIL

NTS

A

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WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT
140593011
DATE
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SCALE AS SHOWN
DESIGNED BY JLR
DRAWN BY YGC
CHECKED BY MAG

**RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS**
PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY

FLORIDA

LICENSED PROFESSIONAL

MICHAEL A. GUIDA

FLORIDA LICENSE NUMBER
60755

DATE: _____

ELECTRICAL DETAILS

SHEET NUMBER

E-8

19 OF 19

C&W engineering
ELECTRICAL CONSULTANTS
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WEST PALM BEACH, FL 33411
(561) 642-5333
REGISTRATION NUMBERS
C & W ENGINEERING INC. CAF 33315
MICHAEL A. GUIDA, P.E. 60755



VIRTUAL PRE-BID CONFERENCE
AUGUST 12, 2024, AT 2:00 PM
ITB #2024B-014 MAIN AND PRATT NH3 UPGRADE

Registration page views	4
Registered participants	4
Canceled registrations	0
Attended participants	9

Start time	8/12/24, 1:54:38 PM
End time	8/12/24, 2:06:11 PM
Meeting duration	11m 32s
Average attendance time	7m 43s

Participants

Name	First Join	Last Leave	In-Meeting Duration	Email	Participant ID (UPN)	Role	Registration First Name	Registration Last Name	Registration Email	Registration Time	Registration Status
Kimberly M. Wynn	8/12/24, 1:54:40 PM	8/12/24, 2:06:02 PM	11m 21s	kwyynn@vpsfl.org	kwyynn@vpsfl.org	Organizer					
Andrew Klausner	8/12/24, 1:55:58 PM	8/12/24, 2:06:07 PM	10m 8s	aklausner@vpsfl.org	aklausner@vpsfl.org	Presenter					
Black, Nick	8/12/24, 1:56:13 PM	8/12/24, 2:06:09 PM	9m 55s	Nick.Black@kimley-horn.com	Nick.Black@kimley-horn.com	Attendee					
Andre R. Sanatan	8/12/24, 1:57:51 PM	8/12/24, 2:06:10 PM	8m 19s	asanatan@vpsfl.org	asanatan@vpsfl.org	Presenter					
Amanda Denton	8/12/24, 1:58:49 PM	8/12/24, 2:06:05 PM	7m 15s	adenton@floridadesigncontractors.com	adenton@floridadesigncontractors.com	Attendee	Amanda	Denton	adenton@floridadesigncontractors.com	8/12/24, 1:56:54 PM	Registered
Paul H. Ward	8/12/24, 1:59:13 PM	8/12/24, 2:06:11 PM	6m 58s	pward@vpsfl.org	pward@vpsfl.org	Attendee	Paul	Ward	pward@vpsfl.org	8/12/24, 1:58:28 PM	Registered
Cornu, Daniel	8/12/24, 2:00:34 PM	8/12/24, 2:06:10 PM	5m 35s	Daniel.Cornu@kimley-horn.com	Daniel.Cornu@kimley-horn.com	Attendee					
Ben Matthews (External)	8/12/24, 2:01:01 PM	8/12/24, 2:06:04 PM	5m 3s	Bmatthews@reverecontrol.com	BMatthews@reverecontrol.com	Attendee	Ben	Matthews	bmatthews@reverecontrol.com	8/12/24, 1:59:39 PM	Registered
Chase Daly (External)	8/12/24, 2:01:11 PM	8/12/24, 2:06:05 PM	4m 54s	cdaly@reverecontrol.com	cdaly@reverecontrol.com	Attendee					
							Chase	Daly	cdaly@reverecontrol.com	8/12/24, 1:59:34 PM	Registered

In-Meeting Activities

Name	Join Time	Leave Time	Duration	Email	Role
Kimberly M. Wynn	8/12/24, 1:54:40 PM	8/12/24, 2:06:02 PM	11m 21s	kwyynn@vpsfl.org	Organizer
Andrew Klausner	8/12/24, 1:55:58 PM	8/12/24, 2:06:07 PM	10m 8s	aklausner@vpsfl.org	Presenter
Black, Nick	8/12/24, 1:56:13 PM	8/12/24, 2:06:09 PM	9m 55s	Nick.Black@kimley-horn.com	Attendee
Andre R. Sanatan	8/12/24, 1:57:51 PM	8/12/24, 2:06:10 PM	8m 19s	asanatan@vpsfl.org	Presenter
Amanda Denton	8/12/24, 1:58:49 PM	8/12/24, 2:06:05 PM	7m 15s	adenton@floridadesigncontractors.com	Attendee
Paul H. Ward	8/12/24, 1:59:13 PM	8/12/24, 2:06:11 PM	6m 58s	pward@vpsfl.org	Attendee
Cornu, Daniel	8/12/24, 2:00:34 PM	8/12/24, 2:06:10 PM	5m 35s	Daniel.Cornu@kimley-horn.com	Attendee
Ben Matthews (External)	8/12/24, 2:01:01 PM	8/12/24, 2:06:04 PM	5m 3s	Bmatthews@reverecontrol.com	Attendee
Chase Daly (External)	8/12/24, 2:01:11 PM	8/12/24, 2:06:05 PM	4m 54s	cdaly@reverecontrol.com	Attendee



Village of Palm Springs

226 Cypress Lane • Palm Springs, Florida 33461-1699

561-584-8200 • www.vpsfl.org

ITB #2024B-014

MAIN AND PRATT NH3 UPGRADE

Addendum No. 2

August 20, 2024

BIDS DUE: 2:00 PM, Local Time, 08/29/2024

TO ALL VENDORS BIDDING ON THIS PROJECT:

The changes, additions, substitutions, and/or deletions contained in Addendum No. 1 are hereby made a part of the Bid Documents for the **ITB #2024B-014 MAIN AND PRATT NH3 UPGRADE** project, fully and completely as if the same were fully set forth herein.

IN THE PLANS

1. Section:

Main WTP page C6 Photo Detail 6

Delete:

Hatch 550 SC

Replace with:

MCMX Model 28056 Monochloramine Analyzer

2. Section:

Main WTP page D2

Delete:

Hatch 550 SC

Replace with:

MCMX Model 28056 Monochloramine Analyzer

3. Section:

Pratt WTP page C6 Photo detail 4

Delete:

Hatch 550 SC

Replace with:

MCMX Model 28056 Monochloramine
Analyzer

4. Section:

Pratt WTP page D2

Delete:

Hatch 550 SC

Replace with:

MCMX Model 28056 Monochloramine
Analyzer

IN THE SPECIFICATIONS

1. Section 17300 Instrumentation and controls

Delete:

Entire Section

Replace with:

Section 17300 (Revised) Instrumentation and Controls

Receipt acknowledged and conditions agreed to the _____ day of _____, 202X.

Bidder

By

ATTACHMENTS

- ATTACHMENT 1 Responses To Bidder Questions
- ATTACHMENT 2 Main WTP Revised C6 & D2 Drawing
- ATTACHMENT 3 Pratt WTP Revised C6 & D2 Drawing
- ATTACHMENT 4 Revised Specifications Section 17300

END OF ADDENDUM

ATTACHMENT 1
RESPONSES TO BIDDER QUESTIONS

Question 1: (Reference Section 16000, Part 1.12: Note A) – It appears that the plan set provided for this project only highlights the Main WTP and does not show anything on the RL Pratt WTP. Please provide the project drawings for the RL Pratt WTP that is referenced in the specifications.

Response 1: Project drawings for the RL Pratt WTP have been uploaded to Demand Star. Question deadline has been extended to Friday August 23rd, 2024, and bid opening to Thursday August 29th, 2024.

Question 2: (Reference Section 16000, Part 1.12: Note B. & dwg #E-5) – An additional analog input card is required at the Main WTP filter PLC. Please confirm that this is only required for the Main WTP and no additional card is required at the RL Pratt WTP.

Response 2: Refer to R.L. Pratt Bid Set Sheet E-5 Specific Electrical Note 1.

Question 3: (Reference Section 17300, Part B) – Please confirm that the control panels & instrumentation required are to be furnished at both the Main & RL Pratt WTP's.

Response 3: Project drawings for RL Pratt WTP have been uploaded to Demand Star. All work is required at both the Main & R.L. Pratt WTP's as described in the drawings. The Contractor shall coordinate the control panel and instrumentation requirements with the ongoing PLC & SCADA Upgrade project at the R.L. Pratt plant.

Question 4: (Reference Section 17300, Part B) – Please confirm that the connection of I/O to existing spare points is required at both the Main & RL Pratt WTP's.

Response 4: Refer to bid drawings.

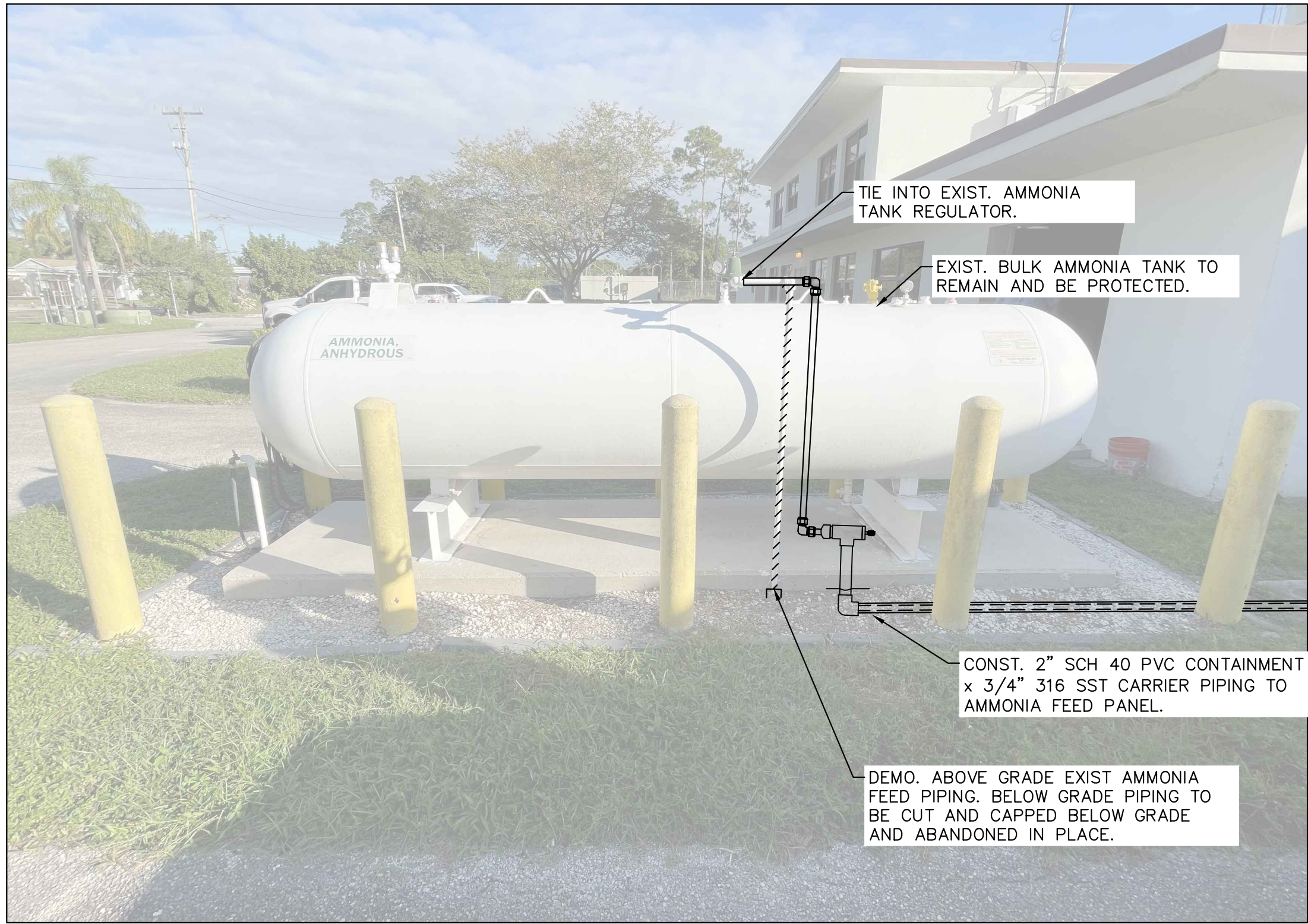
ATTACHMENT 2

Main WTP Revised C6 & D2 Drawing

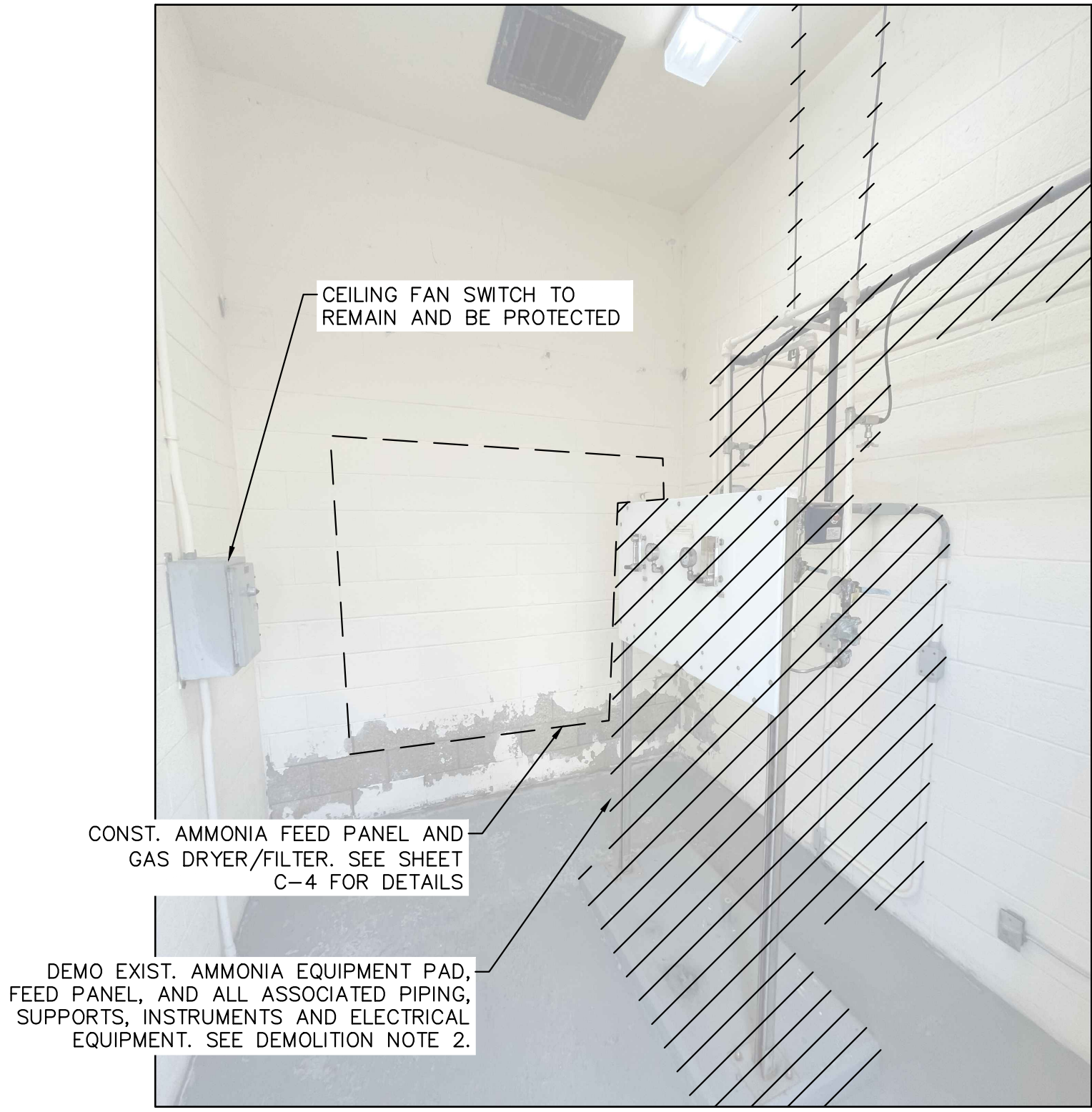
ATTACHMENT 3

Pratt WTP Revised C6 & D2 Drawing

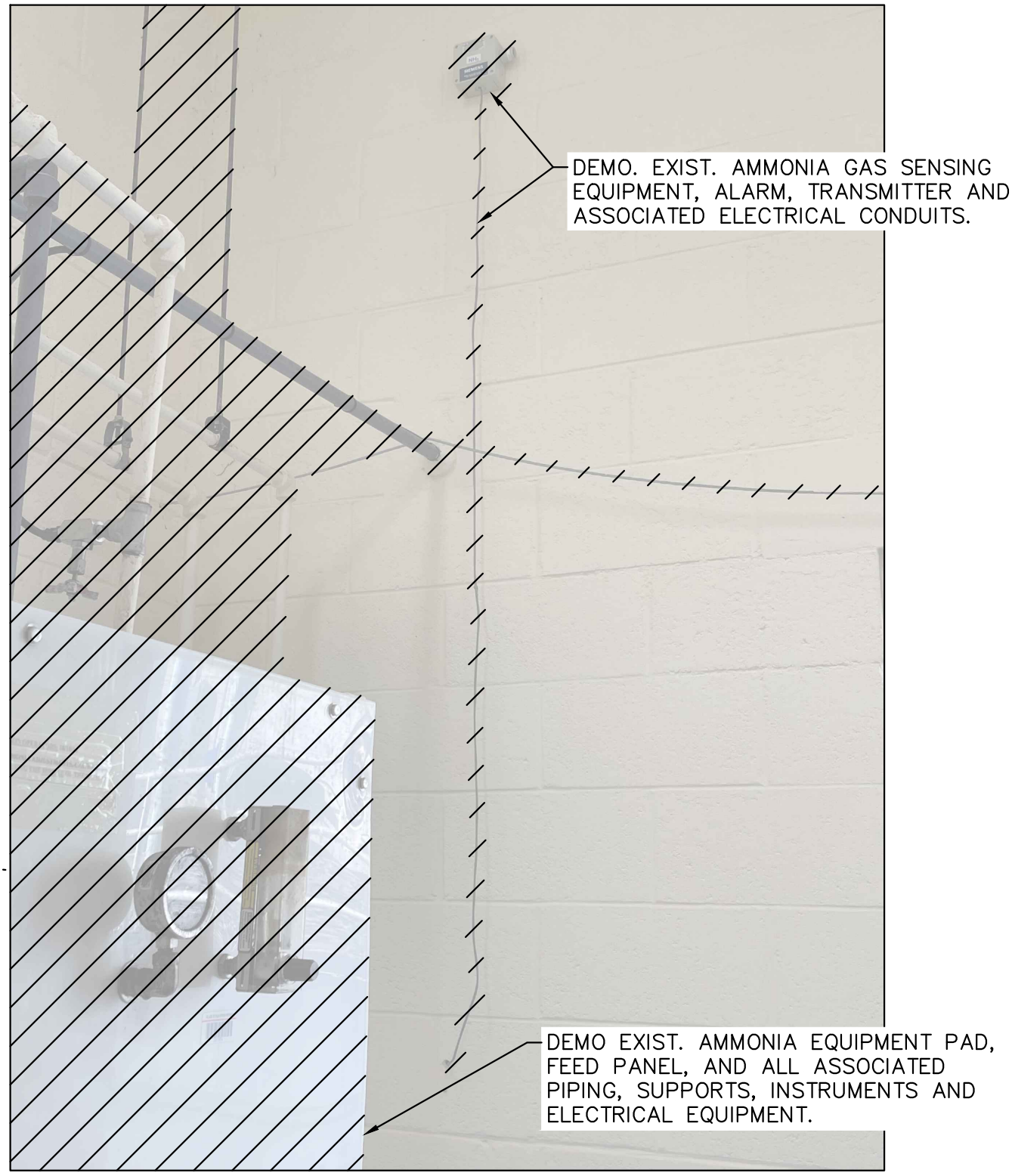
Plotted By: Corniu, Daniel Sheet Set: RL Pratt WTP Ammonia Feed System Improvements Layout: C-6 AMMONIA SYSTEM PHOTO DETAILS CONT. August 19, 2024 09:21:10pm K:\web_civil\140593011 - vps pratt wtp ammonia\CAD\plotsheets\C-6 AMMONIA SYSTEM PHOTO DETAILS CONT.dwg
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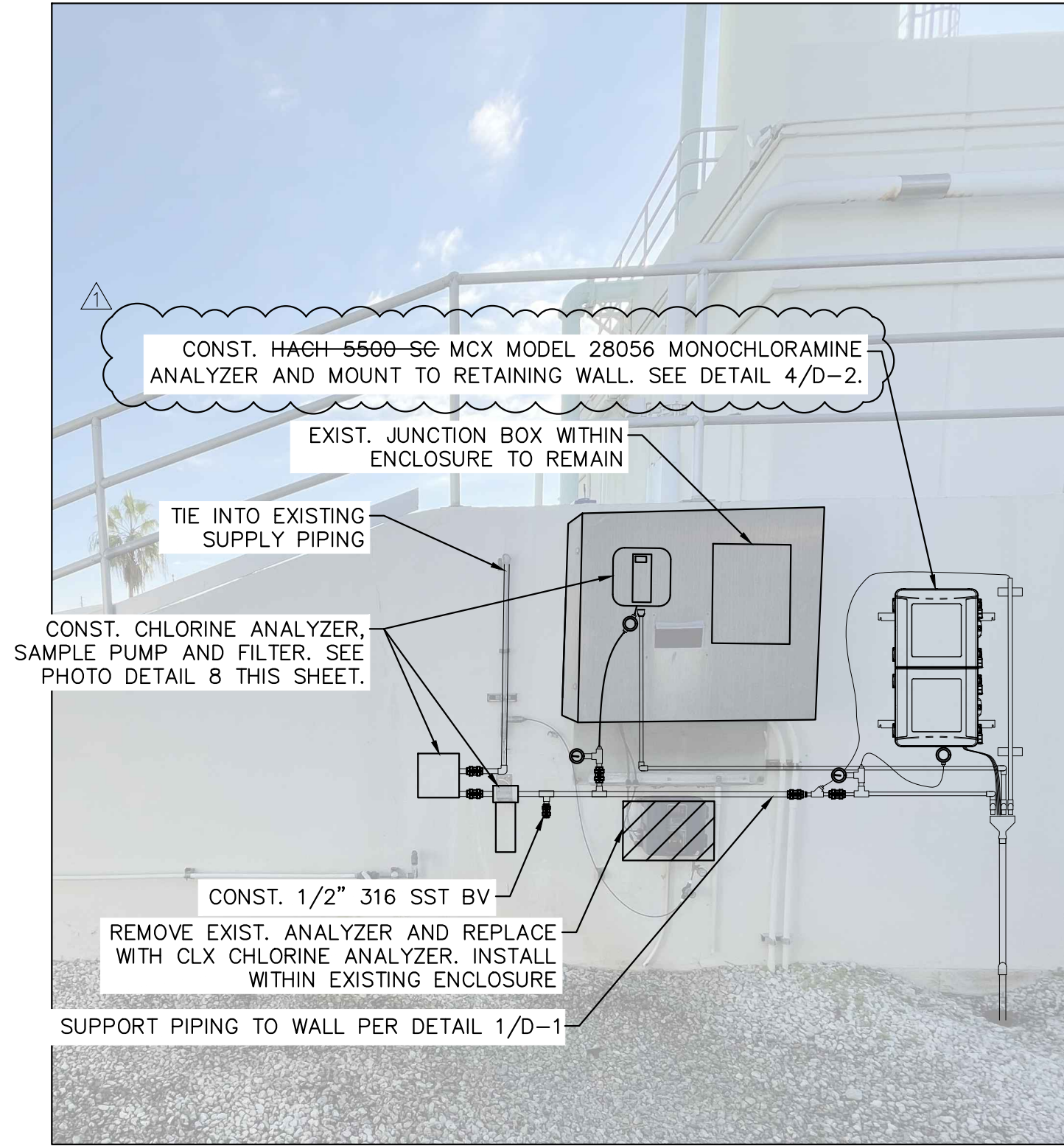
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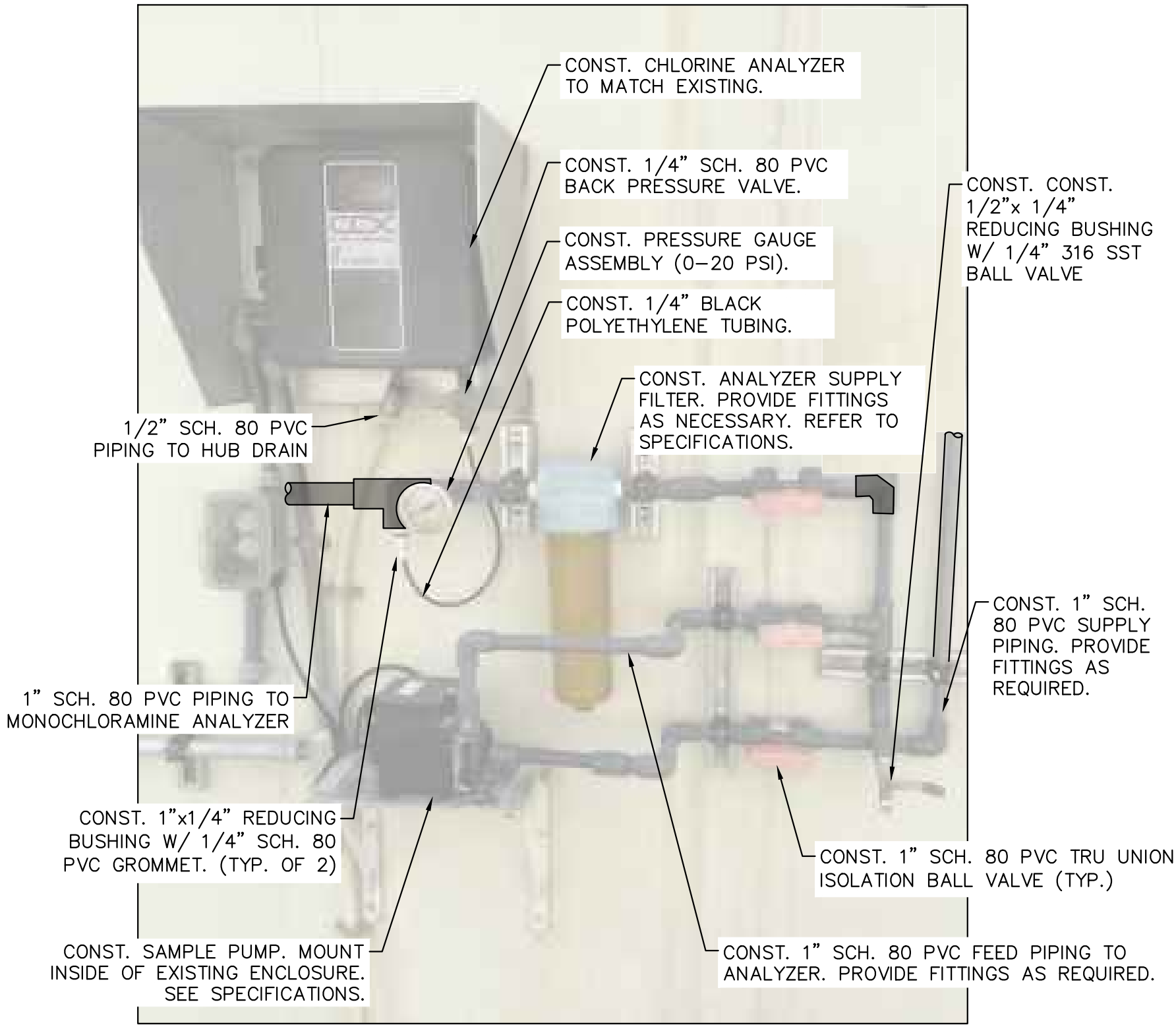
5 PHOTO DETAIL 5
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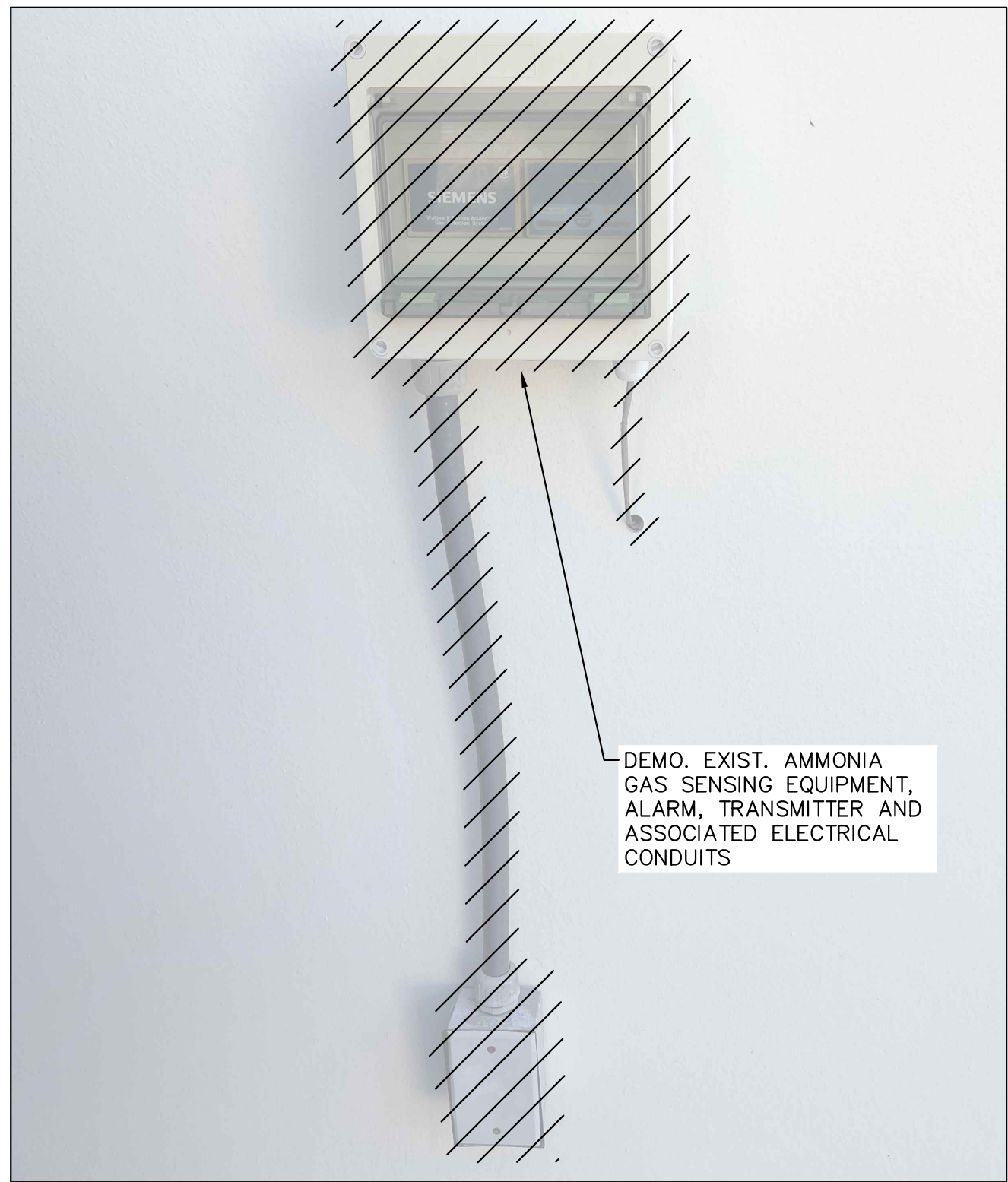
6 PHOTO DETAIL 6
Scale: N.T.S.



7 PHOTO DETAIL 7
Scale: N.T.S.



8 PHOTO DETAIL 8
Scale: N.T.S.



9 PHOTO DETAIL 9
Scale: N.T.S.

GENERAL NOTES:

- ALL AMMONIA TUBING SHALL BE 1/2" OR 3/4" (AS SHOWN ON DRAWINGS) BY 0.083 WALL STAINLESS STEEL TUBING, ASTM A213, SEAMLESS TYPE 316 WITH SWAGelok STYLE COMPRESSION FITTINGS (TYP.). FULL STICK TUBING TO BE AS LONG AS POSSIBLE TO MINIMIZE JOINTS AND FITTINGS (TYP.).
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
- PIPE LABELS SHALL BE USED FOR ALL ABOVE GRADE AMMONIA PIPING.

DEMOLITION NOTES:

- CONTRACTOR SHALL COORDINATE WORK WITH THE OWNER AND PROVIDE 48-HOURS NOTICE PRIOR TO DEMOLITION.
- THE EXISTING AMMONIA FEED SYSTEM SHALL REMAIN IN SERVICE DURING THE ENTIRE CONSTRUCTION PERIOD. CONTRACTOR WILL BE REQUIRED TO PHASE WORK AS NECESSARY TO MAINTAIN OPERATION AND COORDINATE WITH OWNER ALL CUT-INS WHICH REQUIRE THE EXISTING AMMONIA SYSTEM TO BE SHUT DOWN. DEMOLISH EXIST. AMMONIA STORAGE AND FEED FACILITIES UPON COMPLETION OF NEW SYSTEM AND SUCCESSFUL START-UP.
- COORDINATE WITH OWNER FOR ITEMS TO BE RETURNED AFTER DEMOLITION. OWNER RESERVES THE RIGHT TO DESIGNATE ANY ITEMS FOR SALVAGE.
- ALL DEMOLISHED MATERIALS ARE TO BE DISPOSED OF LEGALLY OFF SITE.
- CONTRACTOR SHALL DEMOLISH ALL EXISTING CONDUITS, PIPING, AND PIPING SUPPORTS THAT MAY NOT BE SHOWN OR NOTED ON PLANS.
- CONTRACTOR SHALL GROUT FILL MOUNTING HOLES LEFT BY EXISTING PIPING SUPPORTS AND PAINT TO MATCH.
- PIPE LABELS SHALL BE USED FOR ALL ABOVE GROUND AMMONIA PIPING.

BID SUBMITTAL
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No.	REVISIONS	DATE	BY
1	ADDENDUM REVISIONS	8/19/2024	NPOB

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PHONE: 561-845-0665 FAX: 561-863-8175
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT
140593011
DATE
JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

RL PRATT WTP AMMONIA FEED
SYSTEM IMPROVEMENTS
PREPARED FOR
VILLAGE OF PALM SPRINGS
PALM BEACH COUNTY
FLORIDA

THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY

**AMMONIA SYSTEM PHOTO
DETAILS CONT.**

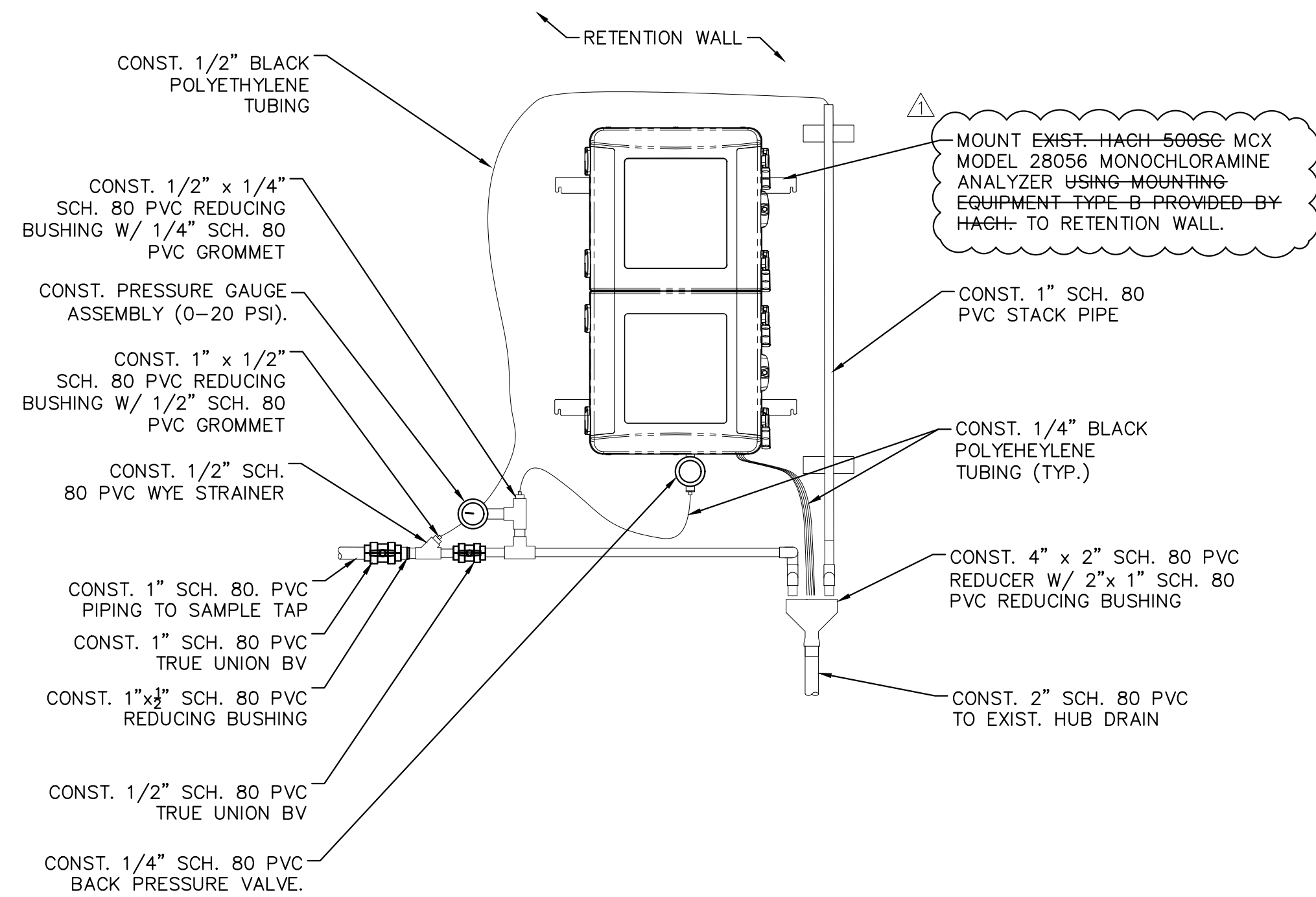
ON THE DATE ADJACENT TO THE SEAL.

SHEET NUMBER

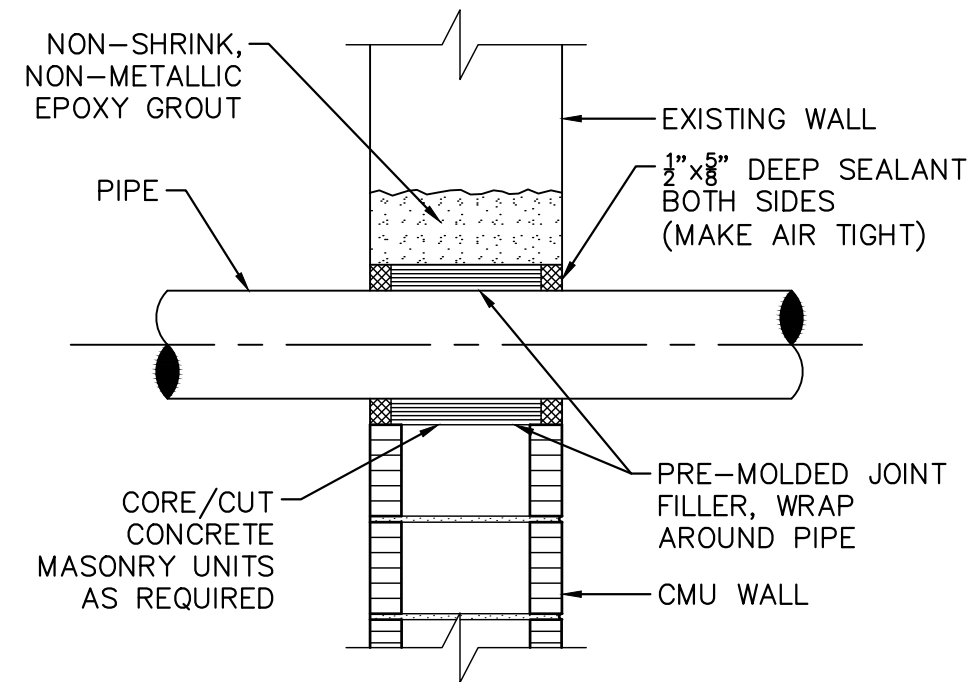
C-6

7 OF 19

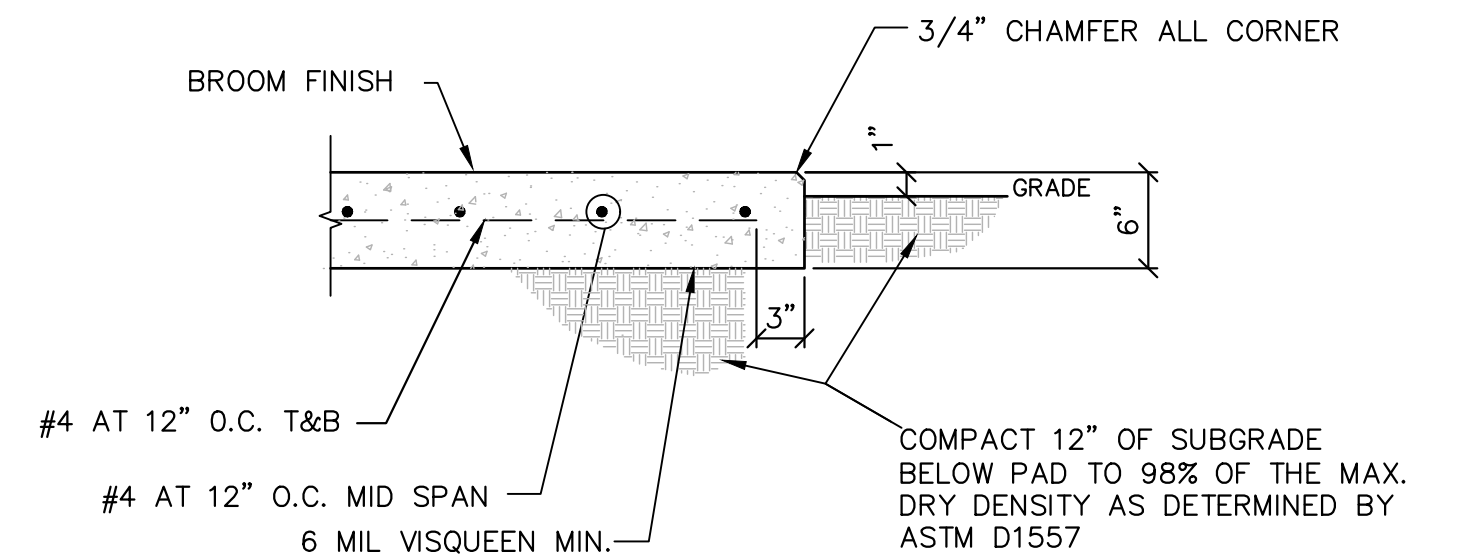
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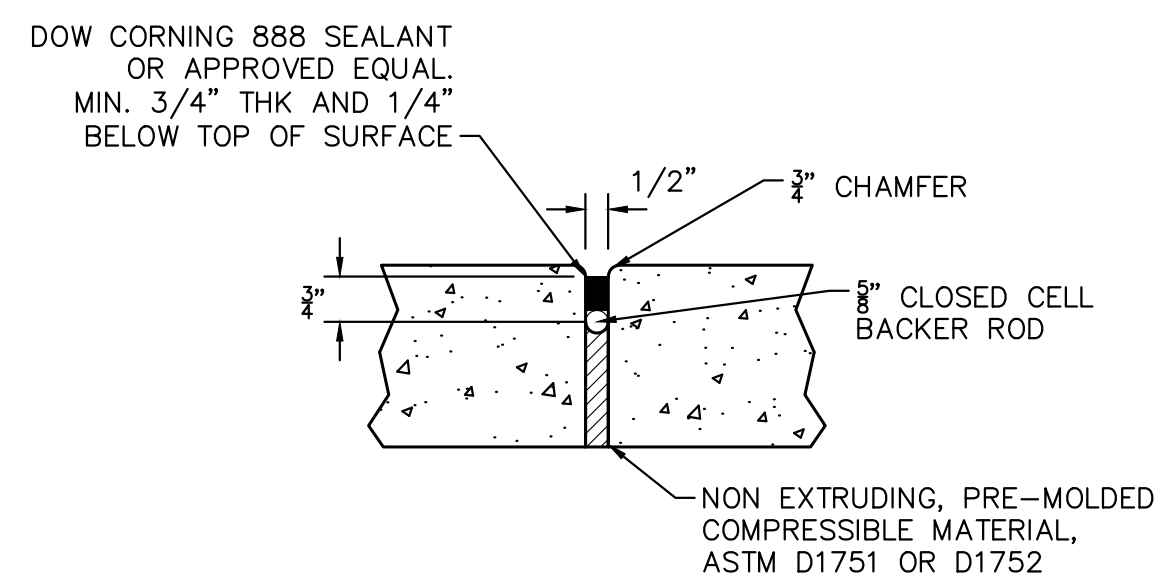
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D-2 Scale: N.T.S.



2 PIPE PENETRATION DETAIL
D-2 Scale: N.T.S.



3 SIDEWALK DETAIL
D-2 Scale: N.T.S.



4 EXPANSION JOINT
D-2 Scale: N.T.S.

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[illegible]

Kimley»»Horn

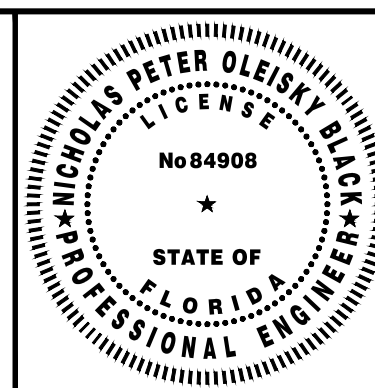
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WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT 140593011
DATE JUN 2024
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY MM
CHECKED BY NPOB

RL PRATT WTP AMMONIA FEED SYSTEM IMPROVEMENTS

PREPARED FOR
VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY FLORIDA



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AND SEALED BY

CONSTRUCTION DETAILS CONT.

ON THE DATE ADJACENT TO THE SEAL.

SHEET NUMBER

D-2

9 OF 19

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ATTACHMENT 4

Revised Specifications Section 17300

SECTION 17300 (REVISED PER ADDENDUM)
INSTRUMENTATION AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. The Contractor shall furnish, install and place into service operating process instrumentation, control systems and panels including accessories, related to this facility, all as shown on plans and specified herein.
 - 1. Existing plant systems must remain operational during construction. Nighttime and/or other off hours work may be required to support plant operations and shall be included in the contractor's bid.
 - 2. The instrument contractor is responsible to verify existing control panels and to provide all demolition and modification as necessary for the installation of the new I/O in the existing local control panels.
 - 3. Equipment rendered obsolete by this construction must be removed from the existing panels. Equipment previously abandoned must also be removed from the panels. Functioning equipment present in these panels must remain functional and will be included on the instrument contractor's "As-Built" drawings. No existing equipment, with the exception of the field wires and panel, may be reused as part of the new control system. New power supplies, surge suppressors, terminal strips, etc. for all I/O to be connected to the new control system must be provided new. The instrument contractor is responsible to provide completed panels that are clean, functional and present a professional workman-like appearance.
 - 4. All wires in control panels must be permanently tagged and shown on the as-built drawings. This includes all spare and abandoned wires and cables. Spare and abandoned cables are to be taped and left coiled in the panels for future use. Cable and wire numbers are to be assigned by the contractor, documented and controlled to prevent duplicate numbers. The contractor shall turn over to the Village, at the project conclusion, a cable and wire list showing assigned numbers and their physical location in the plant.
 - 5. See electrical drawings and specifications for additional work required of the instrument contractor as part of this project to supply demolition instructions, relocation and modification instructions for equipment not necessarily shown on the instrument drawings. There is also specification section 16900 with additional control panel and instrumentation information and requirements.
- B. Work Includes: Engineering, furnishing, installing, testing, programming, documenting, starting up, and Village training for a complete Instrumentation and Control System.
Major parts are:
 - 1. Furnishing of Ammonia Feed Control Panel FP-751 and Gas Alarm Panel CP-741.
 - 2. Furnishing of instrumentation
 - 3. Field calibration of furnished instruments
 - 4. Connection of I/O to existing spare I/O terminal points
 - 5. PLC Programming
 - 6. SCADA HMI Programming
 - 7. Functional Acceptance Testing
- C. Instrument and Control (I&C) Supplier work scope:

1. For I&C equipment and ancillaries provide the following:
 - a. Completing detail design.
 - b. Required Submittals.
 - c. Equipment and ancillaries.
 - d. Instructions, details, and recommendations to, and coordination with, Contractor for proper installation.
 - e. Verify readiness for operation.
 - f. Verify the correctness of final power and signal connections.
 - g. Starting up.
 - h. Testing and coordination of testing.
 - i. Training.
2. Verify following work not by I&C Supplier is provided:
 - a. Correct type, size, and number of signal wires with their raceways.
 - b. Correct electrical power circuits and raceways.
3. For equipment not provided under I&C Supplier, but directly connected to equipment required by I&C Supplier:
 - a. Obtain from Contractor, manufacturer's information on installation, interface, function, and adjustment.
 - b. Coordinate with Contractor to allow required interface and operation with I&C System.
 - c. For operation and control, verify that installations, interfacing signal terminations, and adjustments have been completed with manufacturer's recommendations.
 - d. Test to demonstrate required interface and operation with I&C System.
 - e. Examples of items in this category, but not limited to the following:
 - 1) Valve operators, position switches, and controls.
 - 2) Chemical feed pump and feeder speed/stroke controls.
 - 3) Automatic samplers.
 - 4) Motor control centers.
 - 5) Adjustable speed drive systems.
 - f. Examples of items not in this category:
 - 1) Internal portions of equipment provided under Division 16, Electrical, that are not directly connected to equipment under I&C System.
 - 2) Internal portions of I&C Systems provided as part of package systems and that are not directly connected to equipment provided under I&C System.
4. Wiring external to equipment provided by I&C Supplier:

Special control and communications cable: Provided by I&C Supplier.
- D. Software Engineering work scope:
 1. Configuration of PLCs, including:
 - a. Correct I/O mapping and scaling.
 - b. Ladder logic implementing defined control strategies.
 - c. SCADA interface mappings
 - d. SCADA HMI screen modifications (VT SCADA)
 - e. Specifications/documents including: I/O Checklist, Loops Checks, Functional Tests
 - f. As-built documentation
 2. Start-up support, including system testing.
 3. System training.
 4. Computer based SCADA system modifications (VT SCADA)

5. Integration of signals with Village's reporting and trending software, as directed by the Village.

1.2 SINGLE INSTRUMENT SUPPLIER

- A. The Contractor shall assign to the Single Instrument and Control (I&C) supplier full responsibility for the functional operation of all new instrumentation systems. The Contractor shall have said supplier perform all engineering necessary in order to select, to furnish, to program, to supervise installation, connection, to calibrate, to place into operation of all sensors, instruments, alarm equipment, control panels, accessories, and all other equipment as specified herein.
- B. The single instrument and controls supplier shall demonstrate his ability to successfully complete projects of similar sizes and nature. Provide references (including phone number and contact name) for at least three projects successfully completed in which the following tasks were performed: system engineering, documentation including panel assembly, schematics and wiring diagram, programming, field testing, calibration and start-up, operator instruction and maintenance training.
- C. The foregoing shall enable the Contractor and the Village to be assured that the full responsibility for the requirements of this Section shall reside in an organization which is qualified and experienced in the water management field and its process technology on a functional systems basis.
- D. The single I&C supplier shall have a UL approved shop and shall build all panels according to UL 508A.
- E. The single software engineering supplier shall demonstrate his ability to successfully complete projects of similar sizes and nature. Provide references (including phone number and contact name) for at least three projects successfully completed in which the following tasks were performed: ladder logic programming, computer based SCADA system configuration, documentation, field testing, start-up, and operator instruction.
- F. The I&C supplier shall be Revere Controls.

1.3 INSTALLATION WORK

- A. Nothing in this part of the Specifications shall be construed as requiring the Contractor to utilize personnel supplied by his assigned instrument manufacturer's organization, or any division thereof, to accomplish the physical installation of any elements, instruments, accessories or assemblies specified herein. However, the Contractor shall employ installers who are skilled and experienced in the installation and connection of all elements, instruments, accessories and assemblies; portions of their work shall be supervised or checked as specified in Part 3, herein.

1.4 PREPARATION OF SUBMITTAL OF DRAWINGS AND DATA

- A. It is incumbent upon the Contractor to coordinate the work specified in these Sections so that a complete I&C system for the facility shall be provided and shall be supported by accurate Shop and record Drawings. As a part of the responsibility as assigned by the Contractor, the Single I&C supplier shall prepare and submit through the Contractor, complete organized Shop Drawings, as specified in Part 2.02, herein. Interface between instruments, motor starters, etc. shall be included in his Shop Drawing submittal.
2. During the period of preparation of this submittal, the Contractor shall authorize direct, informal liaison between his Single I&C supplier and the Village for exchange of technical

information. As a result of this liaison, certain minor refinements and revisions in the systems as specified may be authorized informally by the Village, but these shall not alter the scope of work or cause increase or decrease in the Contract Price. During this informal exchange, no oral statement by the Village shall be construed to give formal approval of any component or method, nor shall any statement be construed to grant formal exception to, or variation from these Specifications.

1.5 ADDITIONAL TECHNICAL SERVICES

- A. At no separate additional cost to the Village, the Contractor shall provide the following services of qualified technical representatives of the Single I&C supplier (See Part 3, herein).
 - 1. To supervise installation and connection of all instruments, elements, and components of every system, including connection of instrument signals to primary measurement elements and to final control elements such as pumps, valves, and chemical feeders;
 - 2. To make all necessary adjustments and tests
 - 3. To instruct plant operating and maintenance personnel on the control system. This time shall be in addition to whatever time is required for other facets of work at the site, and shall be during the Village's normal working days and hours.
 - 4. To terminate and test all fiber optic cable and affected devices where called for.

1.6 GUARANTEE

- A. The Contractor shall guarantee all equipment and installation, as specified herein, for a period of one (1) year following the date of completion of the work. To fulfill this obligation, the Contractor shall utilize technical service personnel designated by the Single I&C supplier to which the Contractor originally assigned project responsibility for instrumentation. Services shall be performed within two (2) calendar days after notification by the Village.

1.7 ADDITIONAL PROVISIONS

- A. The applicable provisions of the following Sections under Electrical Work shall apply to work and equipment specified herein, the same as if stated in full, herein:
 - 1. Codes and Standards
 - 2. Equipment, Materials and Workmanship
 - 3. Testing
 - 4. Grounding
 - 5. Equipment Anchoring
 - 6. Conductor and Equipment Identification
 - 7. Terminal Cabinets and Control Compartments
 - 8. Process Control Devices

1.8 NEWEST MODEL COMPONENTS

- A. All meters, instruments, and other components shall be the most recent field proven models marketed by their manufacturers at the time of submittal of Shop Drawings unless otherwise specified to match existing equipment. All technical data publications included with submittals shall be the most recent issue.

1.9 INSPECTION OF THE SITE AND EXISTING CONDITIONS

- A. The instrumentation drawings were developed from past record drawings and information supplied by the Village.

- B. Before submitting a bid, visit the site and determine conditions at the site and at all existing structures in order to become familiar with all existing conditions and instrumentation and control systems which will, in any way or manner, affect the work required under this Contract. No subsequent increase in Contract cost will be allowed for additional work required because of the Contractor's failure to fulfill this requirement.

1.10 RELATED WORK

- A. Division 11 – Equipment
- B. Division 16 – Electrical

PART 2 - PRODUCTS

2.1 INSTRUMENTATION CRITERIA

- A. DESIGNATION OF COMPONENTS:
In these Specifications and on the Drawings, all systems, meters, instruments, and other elements are represented schematically, and are designated by numbers, as derived from criteria in Instrument Society of American Standard ANSI/ISA S5.1-1973. The nomenclature and numbers designated herein and on the Drawings shall be employed exclusively throughout Shop Drawings, data sheets, and similar materials. Any other symbols, designations, and nomenclature unique to the manufacturer's standard methods shall not replace these prescribed above, used, herein and on the Drawings.
- B. SIGNAL CHARACTERISTICS:
Signals shall be electrical, as indicated herein, and shall vary in direct linear proportion to the measured variable, except as noted. Electrical signals outside control panel(s) shall be 4 to 20 milliamperes DC, except as noted. Signals within enclosures may be 1-5 volts DC.
- C. MATCHING STYLE, APPEARANCE AND TYPE:
All instruments to be panel mounted at the control panels shall have matching style and general appearance. Instruments performing similar functions shall be of the same type, model, or class, and shall be of one (1) manufacturer.
- D. SIGNAL ISOLATORS, CONVERTERS AND POWER SUPPLIES:
Signal isolators shall be furnished and installed in each measurement and control loop, wherever required, to insure adjacent component impedance match or where feedback paths may be generated. Signal converters shall be included where required to resolve any signal level incompatibilities. Signal power supplies shall be included, as required by the manufacturer's instrument load characteristics, to insure sufficient power to each loop component.
- E. ALTERNATIVE EQUIPMENT OR METHODS:
Equipment or methods requiring redesign of any project details are not acceptable without prior approval of the Village. Any changes inherent to a proposal alternative shall be at no additional cost to the Village. The required approval shall be obtained in writing by the I&C Subcontractor through the Contractor prior to submittal of Shop Drawings and data. Any proposal for approval of alternative equipment or methods shall include evidence of improved performance, operational advantage and maintenance enhancement over the equipment or method specified, or shall include evidence that a specified component is not available. Otherwise, alternative equipment (other than direct, equivalent substitutions) and alternative methods shall not be proposed.

2.2 DETAILED SYSTEMS DRAWINGS AND DATA

A. CONTENT:

The Contractor shall submit detailed electronic (PDF) Shop Drawings and data prepared and organized by the Single I&C supplier designated at the time of bidding. The submittals shall be submitted in accordance with Section 01300 – SUBITTALS. These Drawings and data shall be submitted as a complete package at one time and shall include:

1. Drawings showing definite diagrams for every instrumentation loop system. These diagrams shall show and identify each component of each loop or system using legend and symbols from ISA Standard S5.4, each having the format of ISA Standard S5.1 as used on the Project Drawing. (Each system or loop diagram shall be drawn on a separate Drawing sheet.)
2. Data sheets for each component, together with a technical product brochure or bulletin. The data sheets shall show, where applicable:
 - a. Component function description used herein and on the Drawings;
 - b. Manufacturer's model number or other product designation;
 - c. Project tag number used herein and on the Drawings;
 - d. Project system loop of which the component is a part;
 - e. Project location or assembly at which the component is to be installed;
 - f. Input and output characteristics;
 - g. Scale range and units (if any) and multiplier (if any);
 - h. Requirements for electric supply (if any);
 - i. Requirements for air supply (if any);
 - j. Materials of component parts to be in contact with, or otherwise exposed to, process media;
 - k. Calibration curves as required.
 - l. Special requirements or features.

A complete index shall appear in the front of each submittal. A separate technical brochure or bulletin shall be included with each instrument data sheet. The data sheets shall be indexed in the submittal by systems or loops, as a separate group for each system or loop. If, within a single system or loop, a single instrument is employed more than once, one data sheet with one brochure or bulletin may cover all identical uses of that instrument in that system. Each brochure or bulletin shall include a list of tag numbers for which it applies. System groups shall be separated by labeled tags.

3. Drawings showing both schematic and wiring diagrams for control circuits. Complete details on the circuit interrelationship of all devices within and outside each control panel shall be submitted first, using schematic control diagrams. Subsequent to return of this first submittal by the Village, piping and wiring diagrams shall be prepared and submitted for review by the Village; the diagrams shall consist of component layout Drawings to scale, showing numbered terminals on components together with the unique number of the wire to be connected to each terminal. Piping and wiring diagrams shall show terminal assignments from all primary measurement devices, such as flow meters, and to all final control devices, such as samplers, pumps, valves, and chemical feeders. The Contractor shall furnish all necessary equipment supplier's Shop Drawings to facilitate inclusion of this information by the I&C system supplier.

Schematic and wiring diagram criteria shall be followed as established in NEMA Standards Publication ANSI/NEMA ICS-1-1978, "Industrial Control and Systems."

4. Assembly and construction Drawings for each control panel and for other special enclosed assemblies for field installation. These Drawings shall include dimensions, identification of all components, surface preparation and finish data, nameplates, and the like. These Drawings also shall include enough other details, including prototype photographs, to define exactly the style and overall appearance of the assembly; a finish treatment sample shall be included.
 5. Installation, mounting and anchoring details for all components and assemblies to be field-mounted, including conduit connection or entry details.
 6. Complete and detailed bills of materials. A master Bill of Materials listing all field mounted devices, control panels and other equipment that shall be shipped to the job site. A Bill of Materials for each control panel listing all devices within the panel.
 7. Modifications to existing equipment. A complete description of all proposed modifications to existing instrumentation equipment, control panels, control devices, cabinets, etc., shall be submitted with the Shop Drawings complete with detailed Drawings of the proposed modifications.
- B. ORGANIZATION AND BINDING:
- The organization of initial Shop Drawing submittal required above shall be compatible to eventual inclusion with the Technical Manuals submittal and shall include final alterations reflecting "as built" conditions. Accordingly, the initial Shop Drawing submittal shall be in electronic format (PDF).

2.3 TECHNICAL MANUALS

- A. Submit Electronic copies (PDF) of operation and maintenance manuals in accordance with Section 01300 – SUBMITTALS.
- B. Initially, these manuals shall be submitted to the Village for favorable review after return of favorably reviewed Shop Drawings and data required under Part 3, herein. Following the Village's review, the manual shall be returned to the Contractor with comments. The manuals shall be revised and/or amended as required and the requisite final manual shall be submitted to the Village fifteen (15) days prior to start-up of systems.
- C. In addition to updated Shop Drawing information to reflect actual existing conditions, each set of technical manuals shall include installation, connection, operating, trouble-shooting, maintenance, and overhaul instructions in complete detail. This shall provide the Village with comprehensive information on all systems and components to enable operation, service, maintenance, and repair. Exploded or other detailed views of all instruments, assemblies, and accessory components shall be included together with complete parts lists and ordering instructions.

2.4 SPARE PARTS (ADD PARTS AS REQUIRED)

- A. The Contractor shall furnish at no additional cost for recommended spare parts covering items required under Section 17300 and spare parts listed below.
 1. Twelve (12) spare fuses for each size and type used.
 2. Six (6) spare surge protectors/arrestors for each type used.

2.5 CONTROL PANELS

- A. GENERAL:

New control panels shall be furnished and installed under this Contract. They shall house the instrumentation, control devices, indicating lights, all necessary accessories, wiring and

terminal blocks as necessary and as shown on the Drawings and as described herein. Control panel doors shall be equipped with a door latch kit or a fast operating clamp assembly as applicable. Each control panel shall be properly grounded and as such be provided with a ground terminal block. Control panels shall be properly sized for installation through new and existing entry ways and custom fit for locations as shown on the drawings.

B. CONSTRUCTION:

1. OUTDOOR: All outdoor control panels shall be NEMA 4X with drip shield kit, 3 point latch mechanism and 316 stainless steel 14 gauge construction.

C. SIGNAL AND CONTROL CIRCUIT WIRING:

1. Wire Type and Sizes

Conductors shall be flexible stranded copper wire; these shall be U.L. listed Type THHN and shall be rated 600 volts. Wire for control signal circuits and alarm input circuits shall be 16 AWG. All instrumentation cables shall be shielded No. 20 AWG with a copper drain wire. All special instrumentation cable such as between sensor and transmitter shall be supplied by the I&C supplier.

2. Wire Insulation Colors

Conductors supplying 120 volt AC power on the line side of a disconnecting switch shall have a black insulation for the ungrounded conductor. Grounded circuit conductors shall have white insulation. Insulation for ungrounded 120 volt AC control circuit conductors shall be red. All wires energized by a voltage source external to the control board(s) shall have yellow insulation. Insulation for all DC conductors shall be blue.

3. Wiring Installation

All wires shall be run in plastic wireways except (1) field wiring, (2) wiring run between mating blocks in adjacent sections, (3) wiring run from components on a swing-out panel to components on a part of the fixed structure, and (4) wiring run to panel mounted components. Wiring run from components on a swing-out panels to other components on a fixed panel shall be made up in tied bundles. These shall be tied with nylon wire ties, and shall be secured to panels at both sides of the "hinge loop" so that conductors are not strained at terminals.

Wiring run to control devices on the front panels shall be tied together at short intervals with nylon wire ties and secured to the inside face of the panel using adhesive mounts.

Wiring to rear terminals on panel mount instruments shall be run in plastic wireways secured to horizontal brackets run above or below the instruments in about the same plane as the rear of the instruments.

Shields of shielded instrument cable shall only be grounded on one side of each cable run. The side to be grounded shall always be in the field as applicable.

Care shall be exercised to properly insulate the ungrounded side, to prevent ground loops from occurring.

Conformance to the above wiring installation requirements shall be reflected by details shown on the Shop Drawings for the Village's review.

4. Wire Marking

Each signal, control, alarm, and indicating circuit conductor connected to a given electrical point shall be designated by a single unique number which shall be shown on all Shop Drawings. These numbers shall be marked on all conductors at every terminal using permanently marked heat-shrink plastic. Instrument signal circuit conductors shall be tagged with unique multiple digit numbers. Black and white wires from the circuit breaker

- panelboard shall be tagged including the one (1) or two (2) digit number of the branch circuit breaker.
5. Terminal Blocks
Terminal blocks shall be molded plastic with barriers and box lug terminals, and shall be rated 15 amperes at 600 volts. White marking strips, fastened securely to the molded sections, shall be provided and wire numbers or circuit identifications shall be marked thereon with permanent marking fluid. Terminal blocks shall be General Electric Type CR 151A1 with mounting rack, equivalent by Cinch-Jones or equal.
- D. PAINTING:
1. Control panels shall be thoroughly cleaned and sandblasted per SSPC SP 6 (Commercial Blast) after which surfaces shall receive a prime coat (Amercoat 185, Koppers 622HB, or equal) 3 mils dry, followed by two (2) or more finish coats (Amercoat 5401, Koppers 501, or equal) 3 mils dry, for a total thickness of the complete system of 6 mils. The finished color of the outside surfaces shall be as specified in the contract drawings. The inside surfaces shall have a white finish coat.
 2. Exterior control panels shall be painted white on the exterior. A durable coating system with a five-year full replacement guarantee shall be used to coat the stainless steel panels. Defects in the coating systems include, but are not limited to, fading, color change, cracking peeling, or otherwise disbonding.

2.6 ACCESSORIES

- A. General purpose relays in the control panels shall be plug in type with contacts rated 10 amperes at 120 volts AC. The quantity and type of contacts shall be as shown on the Drawings. Each relay shall be enclosed in a clear plastic heat and shock resistant dust cover. Sockets for relays shall have screw type terminals. Relays shall be Potter and Brumfield Type KRP or KUP, Square-D Type K, or equal.
- B. Time delay relays shall be solid state on-delay or off-delay type with contacts rated 10 amperes at 120VAC. Units shall include adjustable dial with graduated scale or digital switch setting covering the time range in each case. Time delay relays shall be Agastat Series 7000, Omron series H3, SSAC type TDM, Macromatic TR-5 Series, or approved equal.
- C. Additional slave relays shall be installed when the number or type of contacts shown exceed the contact capacity of the specified relays and timers.
- D. Switches and indicating lights shall be round 30.5mm configuration, heavy duty and corrosion resistant. Legend plate shall be standard size square style laminate with white field and black markings as shown.
- E. Indicating lights shall LED and wired for push-to-test functionality. Lens color shall be as noted. Pushbuttons shall include full guard with flush button and selector switches shall include a black non-illuminated knob on switch, unless otherwise noted. Contact arrangement and configuration shall be as shown.
- F. Devices shall be Cutler Hammer Type E-30, General Electric Type CR104, Square D class 9001 type Sk, Allen Bradley Bulletin 800 or equal.
- G. Selector switches shall be of the rotary type with the number of positions as shown on the Drawings. Color, escutcheon engravings, contact configurations and the like shall be as shown. Devices shall be Cutler Hammer Type E-24, General Electric Type CR104, or equal.
- H. Circuit breakers shall be single pole, 120 volt, 15 ampere rating or as required to protect wires and equipment and mounted inside the panels as shown.

- I. Nameplates shall be supplied for identification of all field mounted elements, including flow meters and their transmitters. These nameplates shall identify the instrument, or meter, descriptively, as to function and system. These nameplates shall be fabricated from black-face, white-center, laminated engraving plastic. A nameplate shall be provided for each signal transducer, signal converter, signal isolator, each electronic trip, and the like, mounted inside the control panels. These shall be descriptive, to define the function and system of such element. Adhesives shall be acceptable for attaching nameplates. Painted surfaces must be prepared to allow permanent bonding of adhesives. Nameplates shall be provided for instruments, function titles for each group of instruments and other components mounted on the front of the control panels as shown. These nameplates and/or individual letters shall be fabricated from VI-LAM, Catalog No. 200, manufactured by N/P Company, or equivalent by Formica, or equal. Colors, lettering, style and sizes shall be as shown or as selected by the Village.

2.7 SURGE PROTECTIVE DEVICE (SPD) PROTECTION

A. General

1. SPD protection shall be provided to protect the electronic instrumentation system from induced surges propagating along the signal and power supply lines. The protection systems shall be such that the protective level shall not interfere with normal operation, but shall be lower than the instrument surge withstand level, and be maintenance free and self-restoring.
2. Instruments shall be housed in a suitable case, properly grounded. Ground wires for all SPD'S shall be connected to a good earth ground and where practical, each ground wire run individually and insulated from each other. These protectors shall be mounted within the instrument enclosure or a separate NEMA-4X junction box coupled to the enclosure.

2. Requirements

1. All electrical and electronic elements shall be protected against damage due to electrical transients induced in interconnecting lines from lightning discharges and nearby electrical systems.
2. Manufacturer's Requirements: All surge protection devices shall be multi stage serial devices manufactured by a company that has been engaged in the design, development, and manufacture of such devices for at least 5 years. Acceptable manufacturers shall be Phoenix Contact, Edco, Transtector, or equal.
3. Surge protection device installations shall comply with UL 94, the National Electric Code (NEC), and all applicable local codes.
4. Surge protection devices shall be installed as close to the equipment to be protected as practically possible.
5. Suppressor Locations: As a minimum, provide surge protective devices at the following locations:
 - a. At all connections between AC power, DC power and associated electrical and electronic equipment, including panels, cabinets, rack assemblies, and field mounted powered instruments.
 - b. At both ends of all two-wire analog signal circuits and all four-wire analog power/ signal circuits.

- c. At the panel end of 24 VDC or 120 VAC discrete input (dry contact) and discrete output circuits that extend to devices outside of the PLC enclosure.
Provide 24VDC and 24VAC power supplies for the different instrument and panel equipment, refer to the equipment's vendor literature for load burden on the power supply and make sure the power supplies are sized to handle all the load in the control panel, and the total load of the field equipment connected to the control panel.
- d. At each device termination point of copper-based communication cables (serial, parallel, Ethernet, , etc.).
- e. On all telephone communications lines (if needed).
- f. RF antenna cable radio terminus.
- 6. Surge protective devices shall be as follows:
 - a. 120-Volt power surge suppressor shall be EDCO series HSP121BT, Phoenix Contact Plugtrab series, Weidmuller equivalent, or equal with fault indicator and U.L. 1449 compliant.
 - b. 4-20 mA signal line protection at the panel side shall be EDCO DRS series, Phoenix Contact Plugtrab series, Weidmuller SD series, or equal with fault indicator.
 - c. Two-wire discrete input/output signal line protection shall be Phoenix Contact Plugtrab series, Weidmuller SD series, or equal with fault indicator.

2.8 INSTRUMENTATION AND CONTROL EQUIPMENT SPECIFICATIONS

A. General Requirements

- 1. The instrumentation subcontractor shall furnish, install, test and place in operation process instrumentation (flow elements, pressure switches, etc.) as scheduled herein together with all signal converters, transmitters, isolators, amplifiers, etc. to interface all instrumentation, panels, controls and process equipment control panels with the process controls as shown on the Drawings and as specified. The Contractor may elect to install primary elements (flowmeters, etc.) on process lines provided that the instrumentation subcontractor provides full on-site supervision during installation. Mounting of associated transmitters, indicators, power supplies, brackets and appurtenances shall be provided as specified herein and shown on the Drawings.
- 2. It is the intent of the Contract Documents that all process taps, isolation valves, nipples, penetrations, embedded instrumentation supports, conduit, wiring, terminations, and the installation of process instrumentation on process lines shall be provided under this Contract. The instrumentation subcontractor shall supervise installation of equipment provided under this Division where installation is provided by others.
- 3. Tapping and connections for primary process sensors shall be sized to suit each individual installation and the requirements of the instrument served. The Contractor shall ensure that the location, supports, orientation and dimensions of the connections and tapping for instrumentation furnished under this Division are such as to provide the proper bracing, the required accuracy of measurement, protection of the sensor from accidental damage and accessibility for maintenance while the plant is in operation. Isolation valves shall be provided at all process taps.
- 4. Equipment shall be located so that it is accessible for operation and maintenance. The instrumentation subcontractor shall examine the Drawings and Shop Drawings for various items of equipment in order to determine the best arrangement for the work as a whole, and shall supervise the installation of process instrumentation supplied under this Division.

5. Materials for miscellaneous mounting brackets and supports shall be of 316 stainless steel construction.
 6. Equipment installed in a hazardous area shall meet Class, Group, and Division as shown on the Drawings, to comply with the National Electrical Code.
 7. All instruments shall return to accurate measurement without manual resetting upon restoration of power after a power failure.
 8. All indicator readouts shall be linear in process units. Readouts of 0-100% shall not be acceptable (except for speed and valve position). Isolated outputs shall be provided for all transmitters.
 9. Unless otherwise specified, field instrument and power supply enclosures shall be 316 stainless steel, fiberglass or PVC coated copper-free cast aluminum NEMA 4X construction.
 10. Where separate elements and transmitters are required, they shall be fully matched, and unless otherwise noted, installed adjacent to the sensor. Special cables or equipment shall be supplied by the associated equipment manufacturer.
 11. Electronic equipment shall utilize printed circuitry and shall be coated (tropicalized) to prevent contamination by dust, moisture and fungus. Solid-state components shall be conservatively rated for long-term performance and dependability over ambient atmosphere fluctuations. Ambient conditions shall be -20 to 50 degrees C and 20 to 100 percent relative humidity, unless otherwise specified. Field mounted equipment and system components shall be designed for installation in dusty, humid, and corrosive service conditions.
 12. All devices furnished hereunder shall be heavy-duty type, designed for continuous industrial service. The system shall contain products of a single manufacturer, insofar as possible, and shall consist of equipment models that are currently in production.
 13. All non-loop-powered instruments and equipment shall be designed to operate on a 60 Hz AC power source at a nominal 117 V, plus or minus 10 percent, except where specifically noted. All regulators and power supplies required for compliance with the above shall be provided. Where equipment requires voltage regulation, constant voltage transformers shall be supplied.
 14. All analog transmitter and controller outputs shall be isolated, 4-20 milliamps into a load of 0-750 ohms, unless specifically noted otherwise. All switches shall have double-pole, double-throw contacts rated at a minimum of 600 VA, unless specified otherwise.
 15. Materials and equipment used shall be UL approved wherever such approved equipment and materials are available.
 16. Electrical work shall be performed in compliance with all applicable local codes and practices. Where the Contract Documents do not delineate precise installation procedures, API RP550 shall be used as a guide to installation procedures.
- B. Installation
1. Install the transmitter in an orientation where the sensing diaphragms are in a vertical plane.
 2. Allow sufficient clearance overhead for cover removal and around the transmitter to provide an access for necessary adjustments.
 3. Provide connections for drain and vent ports on the transmitter as per manufacturer's recommendations.
 4. Locate transmitters as close to the process pipe and pressure tap as practical with the lengths of meter lead piping/tubing kept to a minimum. Do not exceed 50 feet lead length.

- Locate the transmitter to minimize exposure to shock and vibration, or with proper vibration protection hardware and rugged frame. Select location to avoid any thermal shocks.
5. Slope horizontal leads a minimum of one inch per foot downward from the pressure taps for liquid and steam measurement.
 6. Slope horizontal leads at least one inch per foot upward from the pressure taps for gas measurement,
 7. Wrap Teflon tape on the external threads of screwed fittings.
 8. Install differential pressure transmitters for flow measurement to insure that vertical leads on the high and low pressure sides are of equal length so as not to create an error in the measured signal.
 9. Do not run horizontal meter leads in excess of six feet without supports.
 10. Locate output indicators allow easy access for viewing and service by operations personnel.
- C. AMMONIA GAS DETECTION SYSTEM (TYPE A1)
1. Sensor:
 - a. Sensor/Transmitter Requirements:
 - 1) Electrochemical Sensor/Transmitter: The sensor/transmitter must be capable of performing a full calibration by zero adjustment only.
 - 2) The sensor/transmitter must allow for a gas check without alternate calibration / gas check fittings or cap.
 - 3) Accuracy/Repeatability: +/- 2 ppm or +/- 10% of reading
 - 4) NEMA 4X or IP66 equivalent with gaskets.
 - b. Sensor/Transmitter Operating Requirements:
 - 1) Operating Voltage – The sensor/transmitter shall operate between 12-30 VDC, loop powered.
 - 2) The single PCB shall not require tools for installation or removal.
 - 3) The single PCB must be self-aligning in the enclosure.
 - 4) Set-up and start-up of the sensor/transmitter shall be so that the enclosure need not be opened during this process.
 - 5) Sensor/transmitter shall be factory calibrated, ready for use out of the box. A gas check is all that is required to ensure proper operation.
 - 6) Sensor/transmitter shall contain no pots, jumpers or switches.
 - 7) Sensor/transmitter output signal using 4-20 mA.
 - c. Sensor/Transmitter Display:
 - 1) There shall be a local display indicating the gas type being monitored and the concentration of gas present. The display will alternate between the gas type (1 second) and gas concentration (5 seconds). The display will be an integral part of the transmitter enclosure. The display will be visible from a minimum of 5 feet and will be present always, and will not require being turned on or off.
 - 2) Alarm levels will be adjustable by means touch buttons located on the display or Bluetooth connection.
 - d. Smart Sensor Technology:
 - 1) Sensors shall be contained in sensor modules mounted external to the main enclosure. All sensor modules shall have the capability of replacement while the unit is under power (hazardous areas) without the need for tools.

- 2) Sensor modules shall contain all relevant sensor information within the module. This information shall include sensor manufacturer date, gas type, gas range, calibration data, and default relay parameters.
- 3) Sensor module shall store all calibration data so that the module may be calibrated off site and installed in the field without the necessity of recalibration. The sensor module shall not require a battery or power source to store this data.
- e. LED and Relay Features:
 - 1) Sensor/transmitter shall have LED's viewable from 50 feet, minimum. The LED's shall operate as follows:
 - a) Solid green LED – normal operation (measure mode).
 - b) Solid red LED – fault condition.
 - c) Solid yellow LED – alarm condition.
 - 2) Sensor/transmitter shall have relays. Relays shall be rated at 5amps @ 30VDC, 5 amps @ 220VAC, single-pole, double-throw and consist of two for alarm levels and one for fault. All relay contact activation will be monitored. If the relay cannot activate for any reason, the trouble relay will change state. All relays shall be field selectable from the sensor display or a HART hand held communicator. Selectable features include:
 - a) Alarm level.
 - b) Latching / Non-latching.
 - c) Upscale / Downscale.
 - d) Normally-opened / Normally-closed.
 - e) Energized / De-energized.
- f. Other Features:
 - 1) Sensor/transmitter shall be furnished with optional 24VDC power supply from the manufacturer, MSA model 10053967. The power supply will be mounted remotely from the sensor.
 - 2) Sensor/transmitter will be capable of storing and displaying average, minimum and maximum gas concentrations over selected periods of time.
 - 3) The electrochemical sensors will give an indication of when the sensor is nearing the end of its useful life by means of the front panel LCD. This indication that the sensor is nearing its useful life will be based on the sensor output. It shall not be based on the time the sensor was in service.
 - 4) The transmitter/sensor can be located remote from a monitor/readout unit by up to 100 meters via 16 gauge wire.
- g. Sensing Element Warranty:
 - 1) All electrochemical and catalytic bead sensing elements (sensors) will have a minimum useful life of one year. The supplier will provide replacement sensors at no charge for any sensor that does not meet the minimum requirement.
- h. Sensor Enclosure Parameters:
 - 1) Explosion-proof Sensor/Transmitter: The sensor/transmitter will be in a 316 stainless steel enclosure suitable for location in Class I, Division 1 & 2, Groups A, B, C & D classified areas.
 - 2) The enclosure shall have a minimum of four entries, allowing for flexible mounting options for sensor, power, signal, and optional relay wiring.
 - 3) The enclosure shall offer a means to mount without using an entryway.
- i. Sensor/Transmitter Single Condulet Mounting:

- 1) Explosion-proof Sensor/Transmitter: sensor/transmitter will be mounted in a single conduit. The back portion of the enclosure shall be separate from the electronics, allowing for mounting and wiring of the unit without the electronics present.
 - j. Sensor/Transmitter Remote Sensor Mounting:
 - 1) The sensor portion of the sensor/transmitter unit will be capable of being able to be remotely mounted from the electronics and display. The separate sensor enclosure will be able to be mounted up to one hundred (100) feet from the main enclosure.
 - 2) Where remote mounted sensors are supplied, furnish manufacturer provided junction box for remote mounting.
 - 3) The sensor housing for the explosion-proof Gas Monitor will be in an enclosure suitable for location in Class I, Division 1, Groups A, B, C & D, Class II, Division 1, Groups E & F, Class III classified areas. 6.1.3 A two twisted pair cable will connect the sensor housing and the calibration electronics.
 - 4) A two twisted pair cable will connect the sensor housing and the calibration electronics.
 - 5) The readout portion of the sensor/transmitter shall have a display of the concentration of gas present. The display will be visible from a minimum of 50 feet and will be present at all times. It will not be required to be turned on or off.
 - k. Installation and mounting hardware:
 - 1) A mounting strap and/or bracket shall be used which mounts the sensor/transmitter to a pipe or similar structure. Coordinate mounting hardware with instrument stand. Adjust as necessary.
 - l. Approvals:
 - 1) The general-purpose monitor shall have UL approval.
 - 2) The explosion-proof monitor shall have Class I, Division 1 & 2, Groups A, B, C, and D; Class II, Division 1, Groups F & G; Class III approval.
 - 3) The explosion-proof Remote Sensor shall have Class I, Division 1 & 2, Groups A, B, C, and D, Class II, Division 1, Groups F & G; Class III approval.
 - m. The sensor/transmitter shall be MSA ULTIMA X5000, Det-Tronics GT-3000, Sensidyne SensAir, or Approved Equal.
- D. PRESSURE SWITCH (TYPE P1)
1. Pressure, vacuum, and differential pressure switches shall be single or dual action with an adjustable setpoint for the process requirement and/or as specified herein. Switches shall be diaphragm or piston operated and activated S.P.D.T. snap action switches on increasing or decreasing pressure. Minimum differential shall be less than 10 percent of the range. Deadband shall be adjustable. Allowable surge pressure shall be a minimum 1.5 times the range. Each pressure switch shall have visible scale.
 2. Pressure switches shall have a contact rating of 10 amperes at 120 volts AC. Pressure switches shall be rated NEMA 4X, unless specified otherwise. Switches scheduled to be located in NFPA 820 Classified areas shall be listed for installation in Class 1, Division 2 locations. Switches shall have a repeatable accuracy of 1 percent of range. Pressure switches shall be isolated from the process fluid by a diaphragm seal or an isolation ring in locations as shown on the Contract Drawings and/or as specified. Wetted parts materials shall be compatible with the process fluid or gas for corrosion resistance.

3. Pressure switches shall be Model 100 as manufactured by United Electric, or approved equal. Pressure switches for NFPA 820 Class 1, Division 2 locations shall be Model 120 as manufactured by United Electric, Rosemount or approved equal.
4. All conduits near (see drawings) the Ammonia panel and ammonia room areas shall be PVC coated RGS with explosion proof sealoffs for the conduits going to the PLC and the power panels from the ammonia leak detector and the ammonia Feed Control Panel
- E. PRESSURE GAUGE (TYPE P2)
 1. All gauges shall be designed in accordance with the ASME B40.1 entitled, "Gauges, Pressure, Indicating Dial Type - Elastic Element".
 2. All gauges shall be direct reading type. Snubbers shall be provided on all gauges. Gauge full-scale pressure range shall be selected such that the maximum operating pressure shall not exceed the approximately 75% of the full-scale range.
 3. Features
 - a. Mounting: ½" NPT, lower stem mount type
 - b. Accuracy: 0.5% full scale
 - c. Case: Solid front, black phenolic material
 - d. Dial: White background and black letters
 - e. Glass: Shatterproof
 - f. Blow-out protection: Back
 - g. Pressure element: Stainless steel bourdon tube
 - h. Movement: Stainless steel, Teflon coated pinion gear and segment
 - i. Gaskets: Buna-N
 4. Liquid-filled or equivalent mechanically-damped gauges shall be used if the gauges are installed with pumps, or where gauges are subjected to vibrations or pulsation. Filling fluid shall be silicone unless oxidizing agents such as sodium hypochlorite are present, where halocarbon shall be used.
 5. Gauge size shall be 2" for line sizes up to 3" and 4½" for line sizes of 4" or greater.
 6. Diaphragm seals and isolating ring seals shall be furnished in accordance with the requirements specified herein.
 7. The complete gauge assembly and appurtenances shall be fully assembled and tested prior to field mounting. A ½" isolation stainless steel ball valve shall be provided for each gauge assembly.
 8. Pressure and vacuum gauges shall be Ashcroft Duragauge Model 1279, Ametek-U.S. Gauge Division, H.O. Trerice Co., WIKA Instrument Corporation, or approved equal.
6. **RESIDUAL CHLORINE ANALYZER (REVISED PER ADDENDUM)**
 1. The residual chlorine analyzer shall be capable of measuring both free and total chlorine. It shall use DPD colorimetric chemistry.
 2. Analyzer shall have a range of 0 to 10 mg/l free or total chlorine residual
 3. **Analyzer shall be capable of adjusting cycle times from 60 seconds to 10 minutes.** Analyzer shall be capable of providing a 4-20mA output signal for remote monitoring.
 4. Analyzer shall be housed in a NEMA 4X, IP66 rated ABS plastic enclosure.
 5. A 60-day supply of free and total chlorine reagents (compatible with the analyzer) shall be supplied with the analyzer.
 6. **Analyzer shall be an CLX online chlorine analyzer as manufactured by HF Scientific.**
7. **Monochloramine Analyzer (REVISED PER ADDENDUM)**

1. Monochloramine analyzer shall be capable of measuring total ammonia, monochloramine and free ammonia.
2. Unit shall consist of a microprocessor controlled analyzer designed to continually monitor concentration of free and total ammonia and monochloramine in a sample stream
3. The analyzer shall have the capability to intake grab samples for internal measurement and dispense grab samples for external verification
4. Analyzer must operate using 110-240VAC and have a colored LCD screen with measurements recent calibration information, reagent status and Prognosis indicators.
5. **Analyzer shall have NEMA 4X Enclosure**
6. **Analyzer shall be MCX MODEL NO 28056 Monochloramine Analyzer by HF Scientific**

2.9 CONTROL STRATEGIES

- A. The control strategies are written descriptions of the programming required to implement regulatory and sequential control of the unit processes. Control strategies shall fully reside in the memory of the designated PLC. Coefficients pertaining to control strategies shall be modifiable through the operator interface in the monitoring / control mode.
- B. The contractor/software engineer shall include a minimum additional 16 hours on-site to fine tune control systems and make minor software modifications in order to resolve any logic discrepancies encountered during start-up, and supply the Village with a Village accepted, complete and functional control system. This shall be part of the bid package with no additional cost to the Village. The contractor/software engineer shall not use these additional hours for troubleshooting of the PLC program and need approval from the Village for using the additional programming time.
- C. Ammonia Feed System
 1. Anhydrous ammonia is dissolved into the treated water stream to provide monochloramine residual in the distribution system.
 2. There is one dosage location that will utilize flow from the WTP as a control.
 3. The Ammonia Feed Panels are package system(s) complete with instruments, indicators and valves. The plant control logic monitors parameters of the system and controls the feed solenoid valve(s) and feed controller valve position(s) in response to treatment process flow measurements. The system consists of the following:
 - a. Anhydrous Ammonia Bulk Storage Tank with local level indicator and pressure gauge
 - b. One panel with valves, flow controllers, solenoid valves, pressure regulators
 - c. Ammonia feed control panel with 4-channel flow indicating transmitter and selector switches for controlling each of the feed panel solenoid valves
 - d. Low Ammonia Feed Pressure switch to alarm operations via plant control system
 - e. Ammonia gas detector at ammonia feed panels to alarm of hazardous gas concentrations at the ammonia feed panels
 4. Ammonia Feed Valve Local Manual Control:

Local Manual Control of the ammonia feed system is located at the Ammonia Feed Control Panel. There is an OPEN-CLOSE-REMOTE selector switch for each ammonia solenoid valve. In the CLOSE position, the solenoid valve is closed and no ammonia gas flows. In the OPEN position, the solenoid valve is open and flow rate is adjusted by the operator at the ammonia feed control panel, via the 4-channel flow transmitter. In the REMOTE position, the valve is controlled by the plant control system as described below.

5. Ammonia Feed Remote Automatic Control:
When the OPEN-CLOSE-REMOTE valve is in the REMOTE position, the operator selects MANUAL or AUTO at the SCADA HMI. In MANUAL, the operator manually opens and closes the valves via the SCADA HMI. In AUTO, the control logic monitors the treatment process flow rate. When flow is detected, the control logic shall open the solenoid valves and modulate the position of the flow control valve proportionately to the flow rate according to the following formula:

$$\text{Pounds per Day} = 8.345 \times \text{Product Flow (MGD)} \times \text{Dosage Set Point (mg/L)} \times \text{Ratio}$$

A ratio adjustment shall be provided on the SCADA HMI for operators to manually trim ammonia feed rates. There shall be a unique ratio adjustment selection for each feed panel.

6. If any equipment IN REMOTE status indications are not available and the equipment is requested by the automatic control logic, the control system shall alert the operator on the SCADA HMI.
7. The Ammonia feed system is equipped with an ammonia gas detector and alarm panel that will locally sound a horn and trigger a flashing light, as well as alert the operator on the SCADA HMI, when a leak is detected.
8. The control logic shall monitor the ammonia supply low pressure switch and alert the operator when a low feed pressure condition is present.
9. Plant control logic and SCADA HMI monitors the following Discrete Signals:
 - a. Ammonia Gas Leak Alarm
 - b. Ammonia Feed Solenoid Valve No. 1 In Remote Status
10. Plant control logic and SCADA HMI monitors to following Analog Signals:
 - a. Ammonia Gas Detector (PPM)
 - b. Ammonia Feed Controller No. 1 Flow

2.10 PROGRAMMING SOFTWARE

No new software is required for this project. The Village's existing Main WTP SCADA HMI system is VTSCADA and the PLC utilizes Compact Logix and Micro Logix from Allen Bradley. At the RL Pratt WTP the existing VT SCADA is also being upgraded to a larger I/O count license, and new Compact Logix and MicroLogix PLC hardware from Allen Bradley is being installed under a separate SCADA upgrade project.

PART 3 - EXECUTION

3.1 INSTALLATION, TESTING, START-UP AND INSTRUCTION

- A. GENERAL:
Under the supervision of the Single I&C supplier, all systems specified in this Section shall be installed, connected, and tested, and in coordination with the Village, shall be started to place the processes in operation. This shall include final calibration in concert with equipment specified elsewhere in these Specifications, including pumps, valves, as well as certain existing equipment.
- B. Testing

All systems shall be exercised through operational tests in the presence of the Village in order to demonstrate achievement of the specified performance. Operational tests depend upon completion of work specified elsewhere in these Specifications. The scheduling of tests shall be coordinated by the Contractor among all parties involved so that the tests may proceed without delays or disruption by incomplete work. Results of such testing shall be documents on approved test forms submitted to the Village after successful completion of testing. Refer to paragraph 3.02 entitled SUPPLEMENTS for example test forms.

C. INSTALLATION AND CONNECTION:

1. The Contractor shall install and connect all field-mounted components and assemblies under the criteria imposed in Part 1, 1.3, herein. The installation personnel shall be provided with a final reviewed copy of the Shop Drawings and data.
2. The field representative of the Single I&C supplier shall coordinate all work required to interface the new equipment and control devices with the existing equipment, including all required modifications to existing equipment and related devices.

D. CALIBRATION

1. All instruments and systems shall be calibrated after installation, in conformance with the component manufacturer's written instructions. This shall provide that those components having adjustable features are set carefully for the specific conditions and applications of this installation, and that the components and/or systems are within the specified limits of accuracy. Defective elements which cannot achieve proper calibration or accuracy, either individually or within a system, shall be replaced. This calibration work shall be accomplished by the technical field representatives of the I&C system supplier who shall certify in writing to the Contractor that for each loop or system all calibrations have been made and that all instruments are ready to operate. See section 3.2 supplements for sample "Instrumentation Calibration Sheet".
2. Proof of Conformance - The burden of proof of conformance to specified accuracy and performance is on the Contractor using its designated Single I&C supplier. The Contractor's designer shall supply necessary test equipment and technical personnel if called upon to prove accuracy and/or performance, at no separate additional cost to the Village, wherever reasonable doubt or evidence of malfunction or poor performance may appear within the guarantee period.

E. PRE-COMMISSIONING

1. The I&C Supplier shall test each loop (discrete and analog) to determine if it is functioning correctly. The I&C Supplier shall furnish a loop sheet for each loop to be tested. The loop sheet shall represent the actual "as-built" condition of the loop. The I&C Supplier shall perform a field functional loop test which shall be witnessed by the Village and Village. If the loop fails the functional test, the I&C Supplier shall coordinate repairs for the Contractor to correct whatever is wrong with the loop. The I&C Supplier shall retest the loop until it is approved.
2. Each loop shall be tested and approved by the Village until all loops have been approved.

F. Start-up and Instruction

When all systems are assessed by the Contractor to have been successfully carried through complete operational tests with a minimum of simulation, and the Village concurs in this assessment, plant start-up by the Village's operating personnel can follow. Start-up shall comply with the Testing and Startup requirements of Section 11512. Prior to start-up, operating and maintenance personnel shall be instructed in the functions and operation of each system

and shall be shown the various adjustable and set point features which may require readjustment, resetting or checking, re-calibration or maintenance by them from time to time. Instruction shall be given by qualified persons who have been made familiar in advance with the systems.

G. Modifications to Existing Facilities

The Contractor shall make all modifications to existing equipment and control devices which are required to successfully install and integrate all new instrumentation equipment. All costs for any required modification and rehabilitation effort shall be included in the Contractor's original bid amount and no additional payment shall be allowed.

H. Plant Shutdowns

The Single I&C supplier shall carefully examine all work to be performed relative to existing I&C equipment and the installation of new equipment and control devices. Work shall be scheduled to minimize required plant shutdown times.

I. Coordination with Other Concurrent Projects

The single I&C supplier shall coordinate extensively with other I&C suppliers of concurrent projects. Some of the equipment shown in this contract as existing might be installed while this contract is underway.

3.2 SUPPLEMENTS

A. Supplements listed below, following "END OF SECTION" are part of this Specification.

1. Loop Status Report
2. Functional Acceptance Test Sheet
3. Instrument Calibration Sheet

- END OF SECTION -

LOOP STATUS REPORT

PROJECT NAME: _____
PROJECT NO.: _____

COMPONENT STATUS (Date & Initial each item when complete)

TAG NO.	DELIVERED	TAG ID CHECK	INSTALLATION	TERMINATIO N WIRING	TERMINATIO N TUBING	CALIBRATED
REMARKS				LOOP READY FOR START-UP BY DATE		

FUNCTIONAL ACCEPTANCE TEST SHEET

PROJECT NAME: _____

PROJECT NO.: _____

Functional Requirements and Summary of Components:

Verification of Loop Status Report and
Instrument and Valve Calibration Sheets

By: _____

Date: _____

Demonstration Test(S): For Each Functional Requirement of The Loop:

Required Performance:

- (a) List and number each requirement
- (b) Briefly describe the demonstration
- (c) Cite the results that will verify the test
- (d) Provide spaces for initial and date of witness

Performed By:

Witnessed By:

Completed Date:

Loop Accepted By (Village)

By:

Date:

Check for remarks on reverse side

Loop No.

INSTRUMENTATION CALIBRATION SHEET

COMPONENT				MANUFACTURER:				PROJECT																																																																																																																																														
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VILLAGE OF PALM SPRINGS PROJECT REQUEST FORM

TASK # **321**

Project Name: MainWater Treatment Plant Ammonia Feed System Improvements
Department: Utilities
Location: 360 Davis Rd. (Main Water Treatment Plant)

Project Manager: Andrew Klausner
Plan Date: 2/28/23
Date Approved:

DESCRIPTION / JUSTIFICATION:

The VILLAGE owns and operates the Main Water Treatment Plant (MWTP) that utilizes combined chlorine as the Public Water System (PWS) residual disinfectant, by combining ammonia and free chlorine to form chloramines. Chlorine in the form of sodium hypochlorite is injected upstream of the filters to achieve a free chlorine residual in the filter effluent prior to the injection of anhydrous ammonia located at the filter effluent structure, downstream of the existing free chlorine analyzer. The feed rate of sodium hypochlorite and anhydrous ammonia requires careful control and operation to allow an adequate free chlorine residual is maintained prior to anhydrous ammonia feed point and an adequate anhydrous ammonia feed rate is being utilized during the chloramination process to form monochloramines. The current system is near the end of its useful life and the VILLAGE desires to replace the existing system with newer technology to better control anhydrous ammonia feed rates utilizing flow paced feed control, add a monochloramine analyzer downstream of the ammonia injection point to monitor the chloramination process, and replace the existing total chlorine analyzer at the distribution system point of entry.



PROJECT EXPENDITURES / FUNDING SOURCES:

PROJECT COSTS:	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
Land/Easement Acquisition							\$ 0.00
Site Preparation (clearing,soil testing,permitting,survey)							\$ 0.00
Architectural Services							\$ 0.00
Engineering Services	86,720.00						\$ 86,720.00
Construction							\$ 0.00
Equipment							\$ 0.00
Improvement (utility, lightning)							\$ 0.00
Other (Specify)							\$ 0.00
TOTAL PROJECT COSTS	\$ 86,720.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 86,720.00

SOURCES OF FUNDS:	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
General Fund Revenue CY							\$ 0.00
One Cent Sales Tax Funding							\$ 0.00
Grant Funding:							
CDBG							\$ 0.00
FRDAP							\$ 0.00
PBC							\$ 0.00
Other (Specify)							\$ 0.00
W/S Enterprise Fund Revenues	250,000.00						\$ 250,000.00
Stormwater Fund Revenues							\$ 0.00
Undetermined							\$ 0.00
TOTAL PROJECT REVENUE	\$ 250,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 250,000.00

OPERATIONAL IMPACT

OPERATIONAL IMPACT	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
Additional Revenues							
Charges for Services							0.00
Other Revenues							0.00
Less Additional Expenditures							
New Personnel							0.00
Maintenance and Other Operating							0.00
Contracts & Leases							0.00
Net Annual Impact on Operations	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
TOTAL	\$ 163,280.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 163,280.00

Jimmie Johnson

Department Head

2/28/23

Date



VILLAGE OF PALM SPRINGS PROJECT REQUEST FORM

TASK # **322**

Project Name: RL Pratt WTP Ammonia Feed System Improvements
Department: Utilities
Location: RL Pratt Water Plant

Project Manager: Andrew Klausner
Plan Date: 2/28/23
Date Approved:

DESCRIPTION / JUSTIFICATION:

The VILLAGE owns and operates the RL Pratt Water Treatment Plant (WTP) that utilizes combined chlorine as the Public Water System (PWS) residual disinfectant, by combining ammonia and free chlorine to form chloramines. Chlorine in the form of sodium hypochlorite is injected upstream of the filters to achieve a free chlorine residual in the filter effluent prior to the injection of anhydrous ammonia located at the filter effluent structure, downstream of the existing free chlorine analyzer. The feed rate of sodium hypochlorite and anhydrous ammonia requires careful control and operation to allow an adequate free chlorine residual is maintained prior to anhydrous ammonia feed point and an adequate anhydrous ammonia feed rate is being utilized during the chloramination process to form monochloramines. The current system is near the end of its useful life and the VILLAGE desires to replace the existing system with newer technology to better control anhydrous ammonia feed rates utilizing flow paced feed control, add a monochloramine analyzer downstream of the ammonia injection point to monitor the chloramination process, and replace the existing total chlorine analyzer at the distribution system point of entry.



PROJECT EXPENDITURES / FUNDING SOURCES:

PROJECT COSTS:	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
Land/Easement Acquisition							\$ 0.00
Site Preparation (clearing,soil testing,permitting,survey)							\$ 0.00
Architectural Services							\$ 0.00
Engineering Services	86,720.00						\$ 86,720.00
Construction							\$ 0.00
Equipment							\$ 0.00
Improvement (utility, lightning)							\$ 0.00
Other (Specify)							\$ 0.00
TOTAL PROJECT COSTS	\$ 86,720.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 86,720.00

SOURCES OF FUNDS:	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
General Fund Revenue CY							\$ 0.00
One Cent Sales Tax Funding							\$ 0.00
Grant Funding:							
CDBG							\$ 0.00
FRDAP							\$ 0.00
PBC							\$ 0.00
Other (Specify)							\$ 0.00
W/S Enterprise Fund Revenues	250,000.00						\$ 250,000.00
Stormwater Fund Revenues							\$ 0.00
Undetermined							\$ 0.00
TOTAL PROJECT REVENUE	\$ 250,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 250,000.00

OPERATIONAL IMPACT

OPERATIONAL IMPACT	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
Additional Revenues							
Charges for Services							0.00
Other Revenues							0.00
Less Additional Expenditures							
New Personnel							0.00
Maintenance and Other Operating							0.00
Contracts & Leases							0.00
Net Annual Impact on Operations	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
TOTAL	\$ 163,280.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 163,280.00

Jimmie Johnson

Department Head

2/28/23

Date



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Utilities

ITEM #4: Resolution No. 2024-40 Replacement of Surficial Aquifer Well No. 14 project award (Task Orders No.316 & 323) ITB# 2024B-015 - All Webbs Enterprises, Inc.

SUMMARY: The Utilities Department identified the need to replace Well No. 14 due to low water production. The project will require re-locating the well and providing new piping, valves, instruments, and a new pump. In addition, a permanent standby generator will be provided to service this well, as well as Well No. 13.

To ensure the lowest possible price for this project, the Village issued an Invitation to Bid (ITB) #2024B-015 on August 1, 2024, to reconstruct one (1) existing production Well No. 14 and Emergency Back-Up Generator. This process was completed by the Village through a competitive selection process on August 22, 2024.

Within the Fiscal Year 2024 Budget - Water & Sewer Enterprise Fund and the Capital Improvement Plan (CIP), the Village Council approved \$1,200,000.00 for the Reconstruction of Surficial Aquifer Well No. 14 and Emergency Back Up Generator. As a result of the Village's ITB, the following two (2) bid proposals were received:

Vendor	Total Bid
All Webbs Enterprises, Inc.	\$1,742,114.00
Florida Design Drilling LLC.	\$2,001,520.00

The Village's Purchasing Code - Section 58-5(4)a - Competitive Selection Purchase Requirements, provides that the Village Manager shall have the authority to reject any and all bids, proposals, or other responses if he determines that it is in the best interest of the Village to do so.

After reviewing the two (2) bids received, the Village Assistant Director of Utilities, the Village Project Manager, the Village Attorney, and the Village's contracted Engineer, Holtz Consulting Engineers, Inc., determined that All Webbs Enterprises, Inc. provided the lowest, responsible, and responsive bid. As a result, the staff is requesting the Council to approve Task Orders No. 316 & 323 in the amount of \$1,742,114.00 to All Webs Enterprises, Inc.

If approved, the Village would accept All Webbs Enterprises, Inc.'s pricing, including all terms, conditions and pricing as submitted within their ITB proposal. Further, the proposed bid amount submitted by All Webbs Enterprises, Inc. (\$1,742,114.00) is below the Engineer's cost estimate (\$1,912,100.00) by approximately 9%. The Village will not expend more than the amount in the approved budget as it may be adopted/amended each year for these goods and services over the term of this contract.

If approved, it is estimated that the proposed Reconstruction of Surficial Aquifer Well No. 14 and the Emergency Back-Up Generator project is expected to be completed by November 2025.

The proposed agreement was prepared by the Village Attorney and reviewed by the Assistant Village Manager, the Assistant Director of Utilities, the Village Attorney, the Village Project Manager, and the Finance Director.

The Village has not previously worked with the proposed contractor but has received excellent references.

FISCAL IMPACT:

Funding to support the Reconstruction of Surficial Aquifer Well No. 14 (Task Order #316 & 323) is available within the FY 2025 - Water and Sewer Enterprise Fund.

An internal budget transfer or amendment to support this proposed cost above the budgeted amount will be completed within the Water and Sewer Enterprise Fund at a later date, if necessary.

ATTACHMENTS:

1. Proposed Resolution No. 2024-40 - All Webbs Enterprises, Inc. - ITB #2024B-015
2. Proposed Agreement - All Webbs Enterprises, LLC - Well #14
3. Bid Docs ITB#2024B-015 - Well #14 Reconstruction
4. Addendum No. 1 - Well #14
5. Plans - Bid Set - Well #14 Reconstruction
6. Bid Proposal - All Webbs Enterprises Inc.
7. Bid Advertisement - ITB 2024B-015 - Well #14 Replacement
8. Bid Tabulation - ITB2024B-015 Well #14 Reconstruction
9. Recommendation of Award - ITB #2024B-015
10. Fiscal Impact Statement - Well #14 - ITB#2024B-015
11. Capital Improvement Plan Form FY 2024 - Well #14 Replacement

All Webbs Enterprises, Inc. Agreement for Replacement of Well No. 14 and an Emergency Back-Up Generator (ITB #2024B-015 [TO #316 & #323])

RESOLUTION 2024-40

A RESOLUTION OF THE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, TO APPROVE AN AGREEMENT WITH ALL WEBBS ENTERPRISES, INC. FOR AN AMOUNT NOT TO EXCEED \$1,742,114.00 FOR THE REPLACEMENT OF WELL NO. 14 AND AN EMERGENCY BACK-UP GENERATOR, PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Village of Palm Springs needs to replace Well No. 14 and an Emergency Back-Up Generator; and

WHEREAS, Public Works advertised ITB No. 2024B-015 - (TO #316 and #323) - in the Lake Worth Herald on August 1, 2024; and

WHEREAS, All Webbs Enterprises, Inc., located at 309 Commerce Way, Jupiter, FL 33458, submitted a proposal on August 22, 2024, to provide the replacement of Well No. 14 and an Emergency Back-Up Generator; and

WHEREAS, the Village's Engineer, Holtz Consulting Engineers, Inc., and staff have reviewed and considered the proposal from All Webbs Enterprises, Inc. and find that it is in the village's best interest to approve the agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, AS FOLLOWS:

Section 1: Village of Palm Springs approves the agreement with All Webbs Enterprises, Inc. (TO #316 and #323) for services of repairs and improvements in the amount not to exceed \$1,742,114.00 for the replacement of Well No. 14 and an Emergency Back-Up Generator.

Section 2: This resolution shall become effective immediately upon its passage and adoption.

All Webbs Enterprises, Inc. Agreement for Replacement of Well No. 14 and an
Emergency Back-Up Generator (ITB #2024B-015 [TO #316 & #323])

Council Member _____ offered the foregoing Resolution. Council
Member _____ seconded the motion, and upon being put to the vote, the
vote was as follows:

	Aye	Nay	Absent
BEV SMITH, MAYOR			
PATTI WALLER, VICE MAYOR			
KIM SCHMITZ, MAYOR PRO TEM			
JONI BRINKMAN, COUNCIL MEMBER			
GARY READY, COUNCIL MEMBER			

The Mayor thereupon declared this Resolution duly passed and adopted this 26th
day of September 2024.

VILLAGE OF PALM SPRINGS, FLORIDA BY:

BY: _____
BEV SMITH, MAYOR

ATTEST:

BY: _____
KIMBERLY M. WYNN, VILLAGE CLERK

REVIEWED FOR FORM AND LEGAL SUFFICIENCY BY:

BY: _____
CHRISTY GODDEAU, VILLAGE ATTORNEY

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between Village of Palm Springs ("Owner") and
ALL WEBBS ENTERPRISES, LLC ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator

ARTICLE 3 – ENGINEER

- 3.01 The part of the Project that pertains to the Work has been designed by Holtz Consulting Engineers, Inc.
- 3.02 The Owner has retained Holtz Consulting Engineers, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

- 4.01 *Time of the Essence*
- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 4.02 *Contract Times: Days*
- A. The Work will be substantially completed within 390 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 420 days after the date when the Contract Times commence to run.
- 4.03 *Liquidated Damages*
- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or other proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of

requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$500.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500.00 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 Special Damages

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work other than Unit Price Work, a lump sum of: N/A.

All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.

- B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item): See Attachment A

Unit Price Work					
Item No.	Description	Unit	Est. Quantity	Unit Price	Extended Price
1	GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION	LS	1		
2	MOBILIZATION/DEMObILIZATION	LS	1		
3	PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES	LS	1		
4	PLUG AND ABANDON EXISTING WELL AND WELLHEAD/SITEWORK DEMOLITION	LS	1		
5	DRILL NOMINAL 6-INCH DIAMETER PROFILE WELL TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON	LS	1		
6	FURNISH, INSTALL, AND GROUT IN PLACE 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT	FT	40		
7	DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD	FT	80		
8	PERFORM GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS	EA	2		
9	FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC CASING	FT	120		

Unit Price Work					
Item No.	Description	Unit	Est. Quantity	Unit Price	Extended Price
10	CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC CASING IN PLACE	94 LB SKS	178		
11	DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD	FT	80		
12	FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN	FT	80		
13	FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING	FT	120		
14	FURNISH AND INSTALL WELL GRAVEL PACK	CF	176		
15	PERFORM AIRLIFT WELL DEVELOPMENT	HR	50		
16	OPTIONAL: WELL ACIDIZATION MOBILIZATION	LS	1		
17	OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl	GAL	1,800		
18	PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEANOUT OF BOREHOLE	HR	50		
19	PERFORM PUMP DEVELOPMENT	HR	80		
20	CONDUCT STEP-RATE PUMP TEST	HR	8		
21	COMPLETE WELL VIDEO LOGGING	LS	1		
22	WELL DISINFECTION AND SAMPLING	LS	1		
23	WATER QUALITY SAMPLING AND BACTERIOLOGICAL SAMPLING	LS	1		
24	FORMATION WATER DISPOSAL SYSTEM	LS	1		
25	FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN	LS	1		
26	FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING	LS	1		
27	SITWORK (INCLUDING PERIMETER FENCING AND RESTORATION)	LS	1		
28	FURNISH AND INSTALL 20" LINE STOP	EA	2		
29	FURNISH AND INSTALL UNDERGROUND LP STORAGE TANKS	LS	1		
30	FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT	1	LS		
31	ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIP.)	1	LS		
32	OWNER'S ALLOWANCE	1	CI	\$50,000	\$50,000
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)					\$

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment)
\$.

- D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 Progress Payments; Retainage

- A. Payment to the Contractor shall be made pursuant Florida's Prompt Payment Act (for construction services), section 218.735, Florida Statutes (2024), except as provided herein. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer on or about the 20th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Progress payments will be made in an amount equal to the percentages indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with the General Conditions, less liquidated damages, if any.

95% of Work completed.

95% of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to Owner as provided in the General Conditions).

Upon 50% of the Work being completed, the Contractor may request from Engineer that Owner release a portion of the retainage not to exceed 50% of the then current total retainage amount being withheld.

Within 20 business days after the Owner's delivery of the finalized punch-list to the Contractor, the Owner will pay the Contractor the remaining Contract balance that includes all retainage previously withheld by the Owner less an amount equal to 150% of the estimated cost to complete the items on the punch-list. Once all items on the punch-list are completed as confirmed by the Engineer, the Contractor may request payment for the 150% amount withheld for completion of the punch-list.

Notwithstanding the foregoing, the City shall not be required to pay or release any amounts that are subject of a good faith dispute made in writing pursuant to the Contract Documents or the subject of a claim brought pursuant to section 255.05, Florida Statutes.

6.03 Final Payment

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions (including all punch-list items and settlement of all claims, including liquidated damages) and final inspection by the appropriate agency with jurisdiction over the project (if other than the Owner), the Contractor shall submit a "final invoice" to the Owner. In order for both parties to close their books and records, the Contractor will clearly

state "FINAL" on the Contractor's final invoice. This certifies that all Work has been properly completed and all charges have been invoiced to the Owner. Since this account will thereupon be closed, any and other further charges if not properly included in this final invoice are waived by the Contractor. If the Contractor's Final Invoice is approved as set forth above, the Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06. Notwithstanding the foregoing, the City shall not be required to pay or release any amounts that are subject of a good faith dispute made in writing pursuant to the Contract Documents or the subject of a claim brought pursuant to section 255.05, Florida Statutes.

- 6.04 *Punch-List Process.* In accordance with section 218.735(7), Florida Statutes (2024) and section 15.03 of the General Conditions, prior to declaring the Work substantially complete the Engineer, Owner, and Contractor shall inspect the Work and the Engineer shall create a proposed punch-list of items that must be completed by the Contractor before the Contractor is authorized to submit for final payment. The proposed punch-list must include all items of Work which remain to be completed and the estimated cost to complete each Work item on the list. Upon receipt of the Engineer's proposed punch-list, the Contractor and Owner will have seven (7) days to review, make modifications, or agree to the proposed punch-list and estimated costs. The Engineer will resolve any disputes in the punch-list and deliver the final punch-list to the Owner and Contractor along with the final certificate of substantial completion. **Once the punch-list is finalized and delivered to the Owner and Contractor, the Contractor shall have thirty (30) calendar days to complete all Work on the punch-list.** The failure of either party to include any corrective work or pending items on the finalized punch-list does not alter the responsibility of the Contractor to complete all Work and the Project. The Engineer's proposed punch-list, modifications thereto and finalized punch-list may be by informal written notice (e.g., email, fax, or hand-delivery); however, proof of delivery shall be kept by the person providing the informal written notice to the other.

ARTICLE 7 – INTEREST

- 7.01 All amounts not paid when due shall bear interest at the rate set forth in section 218.735, Florida Statutes (as amended from time to time).

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if

any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 16, inclusive).
 - 2. Performance bond (pages 1 to 3, inclusive).
 - 3. Payment bond (pages 1 to 3, inclusive).
 - 4. Other bonds.
 - a. (pages to , inclusive).
 - b. (pages to , inclusive).
 - c. (pages to , inclusive).
 - 5. General Conditions (pages 1 to 65, inclusive).
 - 6. Supplementary Conditions (pages 1 to 10, inclusive).
 - 7. Specifications as listed in the table of contents of the Project Manual.
 - 8. Drawings (not attached but incorporated by reference) consisting of 24 sheets with each sheet bearing the following general title: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator [or] the Drawings listed on the attached sheet index.

9. Addenda (numbers 0 to 1, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages 3 to 4, inclusive).
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.
- E. *Governing Order of Contract Documents* - The Contract Documents include various divisions, sections and conditions which are essential parts for the work to be provided by the Contractor. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, the following precedence will govern the interpretation of the Contract Documents prior to award of the Contract:
 1. Agreement
 2. Addenda to Invitation to Bid (solicitation)
 3. Instructions to Bidders
 4. Special Conditions
 5. Supplementary Conditions
 6. General Conditions
 7. Technical Specifications
 8. Details
 9. City Standard Details
 10. Drawings/Plans
 11. Bid Form

After award, Work Change Directives, Change Orders, amendments and revisions to plans and specifications will take precedence over any of the above. In case of discrepancy among technical specifications, drawings and plans, the most restrictive shall govern. Detailed plans shall have precedence over general plans. In the event that any conflicts cannot be resolved by reference to this Governing Order of Contract Documents provision, then City shall resolve the conflict in any manner which is acceptable to City and which comports with the overall intent of the Contract Documents.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract Documents, no assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract Documents. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Indemnity*

- A. The parties recognize that the CONTRACTOR is an independent contractor. The CONTRACTOR agrees to assume liability for and indemnify, hold harmless, and defend the Owner, its council members, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONTRACTOR, its agents, officers, contractors, subcontractors, employees, or anyone else utilized by the CONTRACTOR in the performance of the Contract Documents. The CONTRACTOR's liability hereunder shall include all attorney's fees and costs incurred by the Owner in the enforcement of this indemnification provision. This includes claims made by the employees of the CONTRACTOR against the Owner and the CONTRACTOR hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. The obligations contained in this provision shall survive termination of the Contract Documents and shall not be limited by the amount of any insurance required to be obtained or maintained under the Contract Documents.
- B. Subject to the limitations set forth in this Section, CONTRACTOR shall assume control of the defense of any claim asserted by a third party against the Owner and, in connection with such defense, shall appoint lead counsel, in each case at the CONTRACTOR's expense. The Owner shall have the right, at its option, to participate in the defense of any third party claim, without relieving CONTRACTOR of any of its obligations hereunder. If the CONTRACTOR assumes control of the defense of any third party claim in accordance with this paragraph, the CONTRACTOR shall obtain the prior written consent of the Owner before entering into any settlement of such claim. Notwithstanding anything to the contrary in this Section, the CONTRACTOR shall not assume or maintain control of the defense of any third party claim, but shall pay the fees of counsel retained by the Owner and all expenses, including experts' fees, if (i) an adverse determination with respect to the third party claim would, in the good faith judgment of the Owner, be detrimental in any material respect to the Owner's reputation; (ii) the third party claim seeks an injunction or equitable relief against the Owner; or (iii) the CONTRACTOR has failed or is failing to prosecute or defend vigorously the third party claim. Each party shall cooperate, and cause its agents to cooperate, in the defense or prosecution of any third party claim and shall furnish or cause to be furnished such records and information, and attend such conferences, discovery proceedings, hearings, trials, or appeals, as may be reasonably requested in connection therewith.
- C. It is the specific intent of the parties hereto that the foregoing indemnification complies with Section 725.06, Florida Statutes, as amended. CONTRACTOR expressly agrees that it will not claim, and waives any claim, that this indemnification violates Section 725.06, Florida Statutes. Nothing contained in the foregoing indemnification shall be construed as a waiver of any immunity or limitation of liability the Owner may have under the doctrine of sovereign immunity or Section 768.28, Florida Statutes.

10.07 *Governing Law and Remedies*

- A. The validity of this Agreement and of any of its terms or provisions, as well as the rights and duties of the parties hereunder, shall be governed by the laws of the State of Florida and venue for any and all disputes related to or arising from this Agreement shall be exclusively in Palm Beach County, Florida.

- B. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

10.08 *Office of the Inspector General*

- A. Palm Beach County has established the Office of the Inspector General, which is authorized and empowered to review past, present, and proposed County programs, contracts, transactions, accounts and records. The Inspector General (IG) has the power to subpoena witnesses, administer oaths, require the production of records, and monitor existing projects and programs. The Inspector General may, on a random basis, perform audits on all of the Owner's contracts.

10.09 *Scrutinized Companies*

- A. Contractor certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List and are not engaged in the boycott of Israel. Pursuant to section 287.135, Florida Statutes, the Owner may immediately terminate this Agreement at its sole option if the Contractor or any of its subcontractors are found to have submitted a false certification; or if the Contractor or any of its subcontractors, are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of the Contract Documents.
- B. The Contractor agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under the Contract Documents. The Contractor agrees that the certifications in this section shall be effective and relied upon by the Owner for the term of the Contract Documents, including any and all renewals. The Contractor agrees that if it or any of its subcontractors' status changes in regards to any certification herein, the Contractor shall immediately notify the Owner of the same. As provided in Subsection 287.135(8), Florida Statutes, if federal law ceases to authorize the above-stated contracting prohibitions then they shall become inoperative.

10.10 *Public Records*

- A. The CONTRACTOR shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the Owner as provided under section 119.011(2), Florida Statutes, specifically agrees to:
 - 1. Keep and maintain public records required by the Owner to perform the service.
 - 2. Upon request from the Owner's custodian of public records or designee, provide the Owner with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 - 3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract Documents and following completion of the Contract Documents if the Contractor does not transfer the records to the Owner.
 - 4. Upon completion of the Contract Documents, transfer, at no cost, to the Owner all public records in possession of the Contractor or keep and maintain public records required by the Owner to perform the service. If the Contractor transfers all public records to the Owner upon completion of the Contract Documents, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt

from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Owner, upon request from the Owner's custodian of public records or designee, in a format that is compatible with the information technology systems of the Owner.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THE CONTRACT DOCUMENTS, CONTACT THE CUSTODIAN OF PUBLIC RECORDS OR DESIGNEE AT 561-584-8200 ext. 8430, kwynn@vpsfl.org, OR BY MAIL AT VILLAGE OF PALM SPRINGS, 226 CYPRESS LANE, PALM SPRINGS, FL 33461.

10.11 *Insurance*

A. The limits of liability for insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Law and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

a. State	Statutory
b. Applicable Federal	Statutory
c. Employer Liability:	
Bodily injury, each accident	\$1,000,000
Bodily injury by disease, each employee	\$500,000
Bodily injury/disease aggregate	\$1,000,000
d. Foreign voluntary worker compensation	Statutory

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

a. General Aggregate	\$2,000,000
b. Products – Completed Operations Aggregate	\$2,000,000
c. Personal and Advertising Injury	\$1,000,000
d. Each Occurrence/Per Claim (Bodily Injury and Property Damage)	\$1,000,000

3. Automobile Liability under paragraph 6.03.D of the General Conditions:

a. Bodily Injury:	
Each Person	\$500,000
Each Accident	\$1,000,000
b. Property Damage:	
Each Incident	\$1,000,000

4. Umbrella of Excess Liability under paragraph 6.03.E of the General Conditions:
 - a. Excess or Umbrella Liability
 - 1) General Aggregate \$5,000,000
 - 2) Each Occurrence/Per Claim \$1,000,000
5. Contractor's Pollution Liability under paragraph 6.03.F of the General Conditions:
 - a. Contractor's Pollution Liability
 - 1) General Aggregate \$2,000,000
 - 2) Each Occurrence/Per Claim \$1,000,000
6. Additional Insureds include the respective officers, partners, directors, employees, agents, consultants, and subconsultants of the following firms and municipal government(s):
 - a. Village of Palm Springs

10.12 *Public Construction Bond*

- A. If the total contract price exceeds \$200,000 in total construction cost, the CONTRACTOR must provide the Owner with a public construction bond in accordance with section 255.05, Florida Statutes. Said bond must be recorded in the Official Records in and for Palm Beach County and a certified copy of recorded bond must be provided to the Owner prior to the CONTRACTOR providing any services under the Contract Documents. The Owner reserves the right to request a bond for any work which is less than \$200,000. The cost of the bond shall be a direct pass-through cost to the Owner without any mark-up by the CONTRACTOR.
- B. The public construction bond shall be on forms attached hereto as **Forms C-610 and C-615 "Performance" and "Payment" Bonds** or substantially similar as approved by the Owner. The bond shall be in an amount not less than the total contract price and shall incorporate by reference the terms of the Contract Documents in their entirety.
- C. To be acceptable to the Owner, a Surety Company shall comply with the following provisions:
 - a. The Surety Company shall have a currently valid Certificate of Authority, issued by the State of Florida Department of Insurance, authorizing it to write surety bonds in the State of Florida.
 - b. The Surety Company shall have a currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.
 - c. The Surety Company shall be in full compliance with the provisions of the Florida Insurance Code.
 - d. The Surety Company shall have at least twice the minimum surplus and capital required by the Florida Insurance Code at the time the contract is approved.
 - e. The Surety Company shall have at least the ratings of A-/Class V in the latest issue of Best's Key Rating Guide.
 - f. The Surety Company shall not expose itself to any loss on any one risk in an amount exceeding ten (10) percent of its surplus to policyholders, provided:
 - 1) Any risk or portion of any risk being reinsured shall be deducted in determining the limitation of the risk as prescribed in this section. These

minimum requirements shall apply to the reinsuring carrier providing authorization or approval by the State of Florida, Department of Insurance to do business in this state have been met.

- 2) In the case of the surety insurance company, in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any security deposited, pledged or held subject to the consent of the surety and for the protection of the surety shall be deducted.

10.13 *Audit by Owner*

- A. The CONTRACTOR shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the Services for at least three (3) years after completion of the Contract Documents. The CONTRACTOR shall permit the Owner, or any authorized representatives of the Owner, at all reasonable times, access to and the right to examine all records, books, papers or documents related to the CONTRACTOR's performance under the Contract Documents including, but not limited to, expenses for sub-contractors, agents or assistants, direct and indirect charges for work performed and detailed documentation for all such work performed or to be performed under the Contract Documents.

10.14 *Copies of Data/Documents*

- A. Copies or original documents prepared by the CONTRACTOR in relation to work associated with the Contract Documents shall be provided to the Owner. Data collected, stored, and/or provided shall be in a form acceptable to the Owner and agreed upon by the Owner.

10.15 *Ownership*

- A. Each and every report, draft, work product, map, record, and other document reproduced, prepared, or caused to be prepared by the CONTRACTOR pursuant to or in connection with this Agreement shall be the exclusive property of the Owner.

10.16 *Limitations of Liability*

- A. Under no circumstances shall either party be liable to the other for any consequential, incidental, special, punitive, or any other form of indirect or non-compensatory damages.

10.17 *Enforcement Costs*

- A. All parties shall be responsible for their own attorneys' fees, court costs and expenses if any legal action or other proceeding is brought for any dispute, disagreement, or issue of construction or interpretation arising hereunder whether relating to the Contract Documents' execution, validity, the obligations provided therein, or performance of the Contract Documents, or because of an alleged breach, default or misrepresentation in connection with any provisions of this Contract Documents.

10.18 *Copyrights and/or Patent Rights*

- A. CONTRACTOR warrants that there has been no violation of copyrights and/or patent rights in the manufacturing, producing or selling of the goods, shipped or ordered, as a result of this Agreement and the CONTRACTOR agrees to hold the Owner harmless from any and all liability, loss, or expense occasioned by any such violation.

10.19 *Protection of Property*

- A. The CONTRACTOR shall at all times guard against damage or loss to the property of the Owner or of other vendors or contractors and shall be held responsible for replacing or repairing any such loss or damage. The Owner may withhold payment or make such

deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the successful CONTRACTOR or its agents. The CONTRACTOR shall be responsible to safeguard all of their property such as tools and equipment while on site. The Owner will not be held responsible for any loss of CONTRACTOR property due to theft or vandalism.

10.20 *Damage to Persons or Property*

- A. The responsibility for all damage to person or property arising out of or on account of Scope of Work done under the Contract Documents shall rest upon the CONTRACTOR.

10.21 *Discrimination*

- A. The CONTRACTOR warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, political affiliation, marital status, handicap, or sexual orientation. Further, CONTRACTOR shall not discriminate or permit discrimination against any employee or an applicant for employment on the basis of race, color, sex, religion, political affiliation, natural origin, ancestry, marital status, sexual orientation or handicap.

10.22 *Construction Defects*

- A. PURSUANT TO SECTION 558.005, FLORIDA STATUTES, ANY CLAIMS FOR CONSTRUCTION DEFECTS ARE NOT SUBJECT TO THE NOTICE AND CURE PROVISIONS OF CHAPTER 558, FLORIDA STATUTES.

10.23 *Public Entity Crimes*

- A. Contractor acknowledges and agrees that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier or sub-contractor under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list. The Contractor will advise the Owner immediately if it becomes aware of any violation of this statute.

10.24 *E-Verify*

- A. Pursuant to Section 448.095(2), Florida Statutes, beginning on January 1, 2021, the CONTRACTOR shall:
 - 1. Register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all Subcontractors (providing services or receiving funding under the Contract Documents) to register with and use the E-Verify system to verify the work authorization status of all the Subcontractors' newly hired employees;
 - 2. Secure an affidavit from all Subcontractors (providing services or receiving funding under this Agreement) stating that the Subcontractor does not employ, contract with, or subcontract with an "unauthorized alien" as defined in Section 448.095(1)(k), Florida Statutes;
 - 3. Maintain copies of all Subcontractor affidavits for the duration of the Contract Documents and provide the same to the Owner upon request;

4. Comply fully, and ensure all of its Subcontractors comply fully, with Section 448.095, Florida Statutes;
5. Be aware that a violation of Section 448.09, Florida Statutes (Unauthorized aliens; employment prohibited) shall be grounds for termination of the Contract Documents; and,
6. Be aware that if the Owner terminates the Contract Documents under Section 448.095(2)(c), Florida Statutes, the Contractor may not be awarded a contract for at least 1 year after the date on which the Contract Documents are terminated and will be liable for any additional costs incurred by the Owner as a result of the termination of the Contract Documents.

10.25 *Waiver.* Failure of either party to enforce or exercise any right(s) under the Contract Documents shall not be deemed a waiver of either party's right to enforce said right(s) at any time thereafter.

10.26 *Waiver of jury trial.* TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THE CONTRACT DOCUMENTS.

10.27 *Independent Contractor.* The Contractor is, and shall be, in the performance of all Work under the Contract Documents, an Independent Contractor, and not an employee, agent, or servant of the Owner. All persons engaged in any of the Work performed pursuant to the Contract Documents shall at all times and in all places be subject to the Contractor's sole direction, supervision and control.

10.28 *Preparation.* The Contract Documents shall not be construed more strongly against either party regardless of who was more responsible for its preparation.

10.29 *Binding authority.* Contractor's representative below has full power, authority and legal right to execute and deliver these Contract Documents and perform all of its obligations under the Contract Documents. By signing the Contract Documents, the representative hereby represents to the Owner that he/she has the authority and full legal power to execute the Contract Documents and any and all documents necessary to effectuate and implement the terms of the Contract Documents on behalf of the party for whom he or she is signing and to bind and obligate such party with respect to all provisions contained in the Contract Documents.

10.30 *Assignment of warranties.* Contractor shall assign to Owner all warranties extended to Contractor by material suppliers. If an assignment of warranty requires the material supplier to consent to same, then Contractor shall secure the material supplier's consent to assign said warranties to Owner.

10.31 *Termination for failure to provide Public Construction Bond.* If a Public Construction Bond is required under the Construction Documents and the Contractor fails to provide the fully executed Public Construction Bond, including a certified copy of the Public Construction Bond as recorded in the Official Records for Palm Beach County, within fifteen (15) calendar days after the Contractor's and Owner's execution of the Contract Documents, the Owner may immediately terminate the Contract Documents upon written notice to the Contractor and the Owner shall have no further obligation to the Contractor under the Contract. In the event of such termination, the Contractor shall also forfeit its bid security to the Owner.

10.32 *Counterparts.* The Contract Documents may be executed in counterparts, each of which shall be an original, but all of which shall constitute one and the same document. Each of the parties shall sign a sufficient number of counterparts, so that each party will receive a fully executed original of the Contract Documents. The Contract Documents may be executed electronically and such electronic signature shall be treated as an original signature of the party executing the Contract Documents electronically.

**REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE TO FOLLOW**

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

VILLAGE:

By: _____

Title: Mayor

Attest: _____

Title: Village Clerk

Approved
as to
Form: _____

Title: Village Attorney

Address for giving notices:

226 Cypress Lane

Palm Springs FL, 33461

CONTRACTOR:

By: 

Title: Vice President

(Seal)

Attest: 

Title: Notary Public



MARTINE RIVARD
Notary Public
State of Florida
Comm# HH490006
Expires 6/3/2028

Address for giving notices:

License No.: _____
(where applicable)

Attachment A

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Village of Palm Springs					
Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator – Bid Form					
Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
1	GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION	1	LS	79,187	79,187
2	MOBILIZATION/DEMOBILIZATION	1	LS	79,187	79,187
3	PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES	1	LS	20,000	20,000
4	PLUG AND ABANDON EXISTING WELL AND WELLHEAD/SITWORK DEMOLITION	1	LS	50,000	50,000
5	DRILL NOMINAL 6-INCH DIAMETER PROFILE WELL TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON	1	LS	25,000	25,000
6	FURNISH, INSTALL, AND GROUT 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT	40	FT	1,750	70,000
7	DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD	80	FT	1000	80,000
8	PERFORM GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS	2	EA	20,000	40,000
9	FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC CASING	120	FT	1,100	132,000
10	CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC CASING IN PLACE	178	94 LB SKS	30	5,340
11	DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD	80	FT	200	16,000
12	FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN	80	FT	500	40,000
13	FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING	120	FT	100	12,000
14	FURNISH AND INSTALL WELL GRAVEL PACK	176	CF	50	8,800
15	PERFORM AIRLIFT WELL DEVELOPMENT	50	HR	350	17,500
16	OPTIONAL: WELL ACIDIZATION MOBILIZATION	1	LS	20,000	20,000
17	OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl	1,800	GAL	7	12,600
18	PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEANOUT OF BOREHOLE	50	HR	400	20,000
19	PERFORM PUMP DEVELOPMENT	80	HR	300	24,000
20	CONDUCT STEP-RATE PUMP TEST	8	HR	500	4,000
21	COMPLETE WELL VIDEO LOGGING	1	LS	10,000	10,000

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
22	WELL DISINFECTION AND SAMPLING	1	LS	10,000	10,000
23	WATER QUALITY SAMPLING AND BACTERIOLOGICAL SAMPLING	1	LS	15,000	15,000
24	FORMATION WATER DISPOSAL SYSTEM	1	LS	10,000	10,000
25	FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN	1	LS	116,000	116,000
26	FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING	1	LS	70,000	70,000
27	SITEWORK (INCLUDING PERIMETER FENCING AND RESTORATION)	1	LS	100,000	100,000
28	FURNISH & INSTALL 20" LINE STOP	2	EA	30,000	60,000
29	FURNISH AND INSTALL UNDERGROUND LP STORAGE TANKS	1	LS	38,500	38,500
30	FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT	1	LS	150,000	150,000
31	ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIP.)	1	LS	352,000	352,000
32	ALTERNATE BID ITEM – ALTERNATE ELECTRICAL CONSTRUCTION AS DEFINED IN SECTION 16000	1	LS	5,000	5,000
33	OWNER'S ALLOWANCE	1	CI	\$50,000	\$50,000

**Total of All Unit Price Bid Item Nos. 1 thru ~~31~~ and Bid Item No. 33
(Excluding Alternate Bid Item No. 32)**

\$ 1,742,114.00

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

BIDDER shall note that this project includes an alternate bid item, Item No. 32 for which BIDDER shall provide a lump sum price to perform work described in the Technical Specifications if OWNER elects to proceed with construction/work as described therein. Identification of the Low Bidder shall be based upon the sum total of Bid Item Nos. 1 through ~~31~~ and Bid Item No. 33, excluding Bid Item No. 32. If OWNER elects to proceed with forego construction/work as defined under Alternate Bid Item No. 32, Bid Item No. ~~32~~ ~~31~~ shall not be required and shall be removed from the Contract via formal change order. See *Section 01200 – Measurement and Payment* of the Technical Specifications for additional details.

Total of Lump Sum and Unit Price Bids = Total Bid Price \$ 1,742,114.00

ONE MILLION SEVEN HUNDRED FORTY-TWO THOUSAND ONE HUNDRED FOURTEEN DOLLARS



VILLAGE OF PALM SPRING OFFICE OF THE VILLAGE CLERK

226 Cypress Lane ▪ Palm Springs, FL ▪ 33461

Affidavit of Compliance with Anti-Human Trafficking Laws

[THIS FORM MUST BE SIGNED AND NOTARIZED]

I, the undersigned, am an authorized officer or agent of ALL WEBBS ENTERPRISES, LLC and attest that the Vendor does not use coercion for labor or services as defined in section 787.06, Florida Statutes.

Under the penalty of perjury, I hereby declare swear or affirm that the above state facts are true and correct.

By: [Signature]
Print Name: David Webb Jr
Print Title: Vice President

STATE OF FLORIDA }
COUNTY OF PALM BEACH }

THE FOREGOING instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on this 20th day of September 2024, by David Webb Jr, as the Vice President [title] of Vendor, who is personally known to me or who has produced _____ as identification and who did affirm or swear to the same.

Notary Seal:



MARTINE RIVARD
Notary Public
State of Florida
Comm# HH490006
Expires 6/3/2028

[Signature]

Notary Public Signature

CONTRACT BID DOCUMENTS

Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator

BID NO.: 2024B-015



VILLAGE OF PALM SPRINGS FLORIDA

FOR INFORMATION REGARDING THIS PROJECT CONTACT:

Holtz Consulting Engineers, Inc.
270 South Central Blvd • Jupiter, FL 33458
PH. (561) 575-2005

BID SET

PROJ NO. 112_2401
DATE : JULY 3, 2024



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SECTION 00020

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NOT USED

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NOT USED

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NOT USED

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NOT USED

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NOT USED

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PART 1



BIDDING REQUIREMENTS

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**VILLAGE OF PALM SPRINGS
PALM SPRINGS, FL
ITB NO. 2024B - 015
REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14
AND INSTALLATION OF STANDBY GENERATOR**

ADVERTISEMENT FOR BIDS

Sealed Bids for the construction of the **Replacement of Surficial Aquifer Well No. 14** must be received by the **Village of Palm Springs**, at the office of the **Palm Springs Village Clerk via online submission on Demandstar.com**, until **2:00 PM** local time on **August 22, 2024**. At **3:00 PM** all Bids received will be publicly opened and read. The Project consists of plugging/abandoning one (1) existing production well, Well No. 14, and constructing a replacement surficial aquifer production well, Well No. 14R, including drilling, setting of casings and/or well screen, grouting, testing, well logging, video logging, acidization (optional), pump testing, formation water disposal system (including temporary piping and pumps), well facility disinfection, fencing, clearing and restoration of well site, new pump and motor including column pipe and appurtenances, well head piping and appurtenances, flow meter, raw water main piping / tie-in, generator and below-grade LPG tank installation, Automatic Transfer Switch installation, electrical and controls, site work and restoration, as described herein and as shown on the drawings. The project also consists of furnishing all labor, equipment, and materials necessary for testing / pressure grouting of existing sanitary sewer piping including applicable site work and restoration, as described herein and as shown on the drawings.

Bidding Documents may be viewed and downloaded online www.vpsfl.org or <http://www.demandstar.com>. Hard copies of bidding Documents may be obtained from Holtz Consulting Engineers, Inc. on Mondays through Fridays between the hours of 8:00 AM and 5:00 PM. Bidding Documents are available on compact disc (as portable document format (PDF) files) for a non-refundable charge of \$ 40.00, including shipping via overnight express service. Alternatively, printed Bidding Documents may be obtained from Holtz Consulting Engineers, Inc. either via in-person pick-up or via mail, upon receipt of payment for the Bidding Documents. The non-refundable cost of printed Bidding Documents is \$ 80.00 per set, payable to "Holtz Consulting Engineers, Inc.".

Bidders must submit their responses electronically via DemandStar – <http://www.demandstar.com>.

A virtual pre-bid conference will be held at **2:30 PM** local time on **August 12, 2024**, via Microsoft Teams. Attendance at the pre-bid conference is **not** mandatory.

Non-Mandatory Pre-Bid Conference August 12, 2024, at 2:30 PM

Participants can use their telephone or computer mic & speakers (VoIP)

Registration: <https://events.gcc.teams.microsoft.com/event/6401bc0b-99f7-4992-b51f-1ee44d63b8b2@20801dc8-57d4-4c4b-b981-92be4d50e21c>

Meeting ID: 231 262 519 007

Passcode: SN4Fk6

Bid Opening – August 22, 2024, at 3:00 PM

Participants can use their telephone or computer mic & speakers (VoIP)

- Registration: <https://events.gcc.teams.microsoft.com/event/080ab52e-e029-448fa5f8-d81d89495d37@20801dc8-57d4-4c4b-b981-92be4d50e21c>

Meeting ID: 229 850 115 978

Passcode: xkgizP

Bid security shall be furnished in accordance with the Instructions to Bidders.

Any questions regarding the specifications and Solicitation process must be submitted in writing to the Procurement Specialist at procurement@vpsfl.org. Questions and requests for clarification and additional information must be received prior to the Deadline for Submission of Questions on **August 16, 2024, at 5:00 PM** local time.

Pursuant to Section 2-355 of Palm Beach County Ordinance No. 2011-039, and the purchasing policies of the Village of Palm Springs, all Solicitations, once advertised, are under the “Cone of Silence” until the appropriate authority has approved an award recommendation, rejected all responses or some other action by the Village to end the selection process. This limits and requires documentation of communications between potential Bidders and/or Bidders on Village Solicitations, the Village’s professional staff, and the Village Council members.

Owner: **Village of Palm Springs**

Date: **August 1, 2024**

Publication: **Lake Worth Herald, DemandStar, and Village of Palm Springs website**

+ + END OF ADVERTISEMENT FOR BIDS + +

INSTRUCTIONS TO BIDDERS

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ARTICLE 1 – DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.

2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its Bid (a) written evidence establishing its qualifications such as financial data, previous experience, present commitments, and other such information as may be called for in Section 00451, and (b) the following additional information:

A. Evidence of Bidder's authority to do business in the State of Florida.

B. State of Florida contractor license number.

C. Subcontractor and Supplier qualification information [coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others."]

D. Provide a minimum of five (5) similar projects which have been completed within the past ten (10) years per Section 00451 - Bidder Qualifications Questionnaire, Article 11, including project description, final project cost, owner's name, address, and phone number. A similar project shall be defined as construction of surficial production well, including all drilling and well head components, for a municipal potable water system in South Florida.

E. Current Certificate of Insurance per the requirements of Section 00520 - Agreement, Article 10.10.

3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER’S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 *Site and Other Areas*

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions
 - 1. The Supplementary Conditions identify:
 - a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site, if any.
 - b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any.
 - 2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
 - 3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.
- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or adjacent to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

- A. On request, the Owner will provide the Bidder access to the Site visit during normal working hours. Bidder shall not disturb any ongoing operations at the Site.
- B. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations,

investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

- C. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- D. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.
- E. Bidder shall not disturb any ongoing operations at the Site.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;
- E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;

- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

- 6.01 A pre-Bid conference will be held at the time and location stated in the invitation or advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Owner will transmit to all prospective Bidders of record such Addenda as Owner and Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Owner in writing to the email address stated in the invitation or advertisement to bid. Interpretations or clarifications considered necessary by Owner or Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of

the Contract or 121 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed, and completed and ready for final payment, are set forth in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those “or-equal” or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an “or-equal” or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each such request shall comply with the requirements of Paragraphs 7.04 and 7.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. Engineer’s decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.
- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder’s sole risk.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.
- 12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.
- 12.03 Unless otherwise required to be submitted with the Bid, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers for which such identification is required.

Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or

other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

- 12.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
 - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.
- 13.03 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The partnership's address for receiving notices shall be shown.
- 13.04 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the firm's address for receiving notices shall be shown.
- 13.05 A Bid by an individual shall show the Bidder's name and address for receiving notices.
- 13.06 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture's address for receiving notices shall be shown.
- 13.07 All names shall be printed in ink below the signatures.
- 13.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.10 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and

qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID

14.01 *Lump Sum*

- A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.

14.02 *Unit Price*

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.03 *Allowances*

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

ARTICLE 15 – SUBMITTAL OF BID

15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.

15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to 226 Cypress Lane, Palm Springs, FL 33461.

15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

15.04 By submitting a Bid, Bidder acknowledges that Bidder has reviewed the terms of the Agreement included as part of the bid package and represents that, if awarded the contract, Bidder is prepared to enter into an Agreement with the Village in substantially the same form.

15.05 The following documents shall be submitted with and made a part of the Bid:

- Section 00400 Bid Submission checklist
- Section 00410 Bid Form
- Section 00430 Bid Bond, complete with Power of Attorney
- Section 00431 Tabulation of Subcontractor and Suppliers
- Section 00440 Florida Trench Safety Act Certification
- Section 00451 Qualifications Statement
- Section 00452 Bidder's Statement of Disputes, Litigation, Arbitration, and Surety Completion
- Section 00453 Non-collusion Affidavit
- Section 00454 Drug-Free Workplace Certificate
- Section 00455 Sworn Statement on Public Entity Crimes
- Section 00456 Scrutinized Companies Certification Form
- Section 00457 Vendor Conflict of Interest Disclosure Statement
- Current Certificate of Insurance

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the

Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.

19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.

19.03 Evaluation of Bids

A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form. To determine the Bid prices for purposes of comparison, Owner shall announce to all bidders a "Base Bid plus alternates" budget after receiving all Bids, but prior to opening them. For comparison purposes alternates will be accepted, following the order of priority established in the Bid Form, until doing so would cause the budget to be exceeded. After determination of the Successful Bidder based on this comparative process and on the responsiveness, responsibility, and other factors set forth in these Instructions, the award may be made to said Successful Bidder on its base Bid and any combination of its additive alternate Bids for which Owner determines funds will be available at the time of award.

19.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 20 – BONDS AND INSURANCE

20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – SALES AND USE TAXES

22.01 CONTRACTOR is responsible for all sales and use taxes applicable to this project.

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SECTION 00400
BID SUBMISSION CHECKLIST

Project Name: _____

Bid Number: _____

Bidders Name: _____

The following items must be submitted in the following order with your bid:

1. ___ Completed Section 00400 - Bid Submission Checklist
2. ___ Completed Section 00410 - Bid Form
3. ___ Completed Section 00430 - Bid Bond, complete with Power of Attorney
4. ___ Completed Section 00431 - Tabulation of Subcontractor and Suppliers
5. ___ Completed Section 00440 - Florida Trench Safety Act Certification
6. ___ Completed Section 00451 - Qualifications Statement
 - a. ___ Affidavit from Bonding Company
7. ___ Completed Section 00452 - Bidder's Statement of Disputes, Litigation, Arbitration, and Surety Completion
8. ___ Completed Section 00453 - Non-Collusive Affidavit
9. ___ Completed Section 00454 - Drug-Free Workplace Certificate
10. ___ Completed Section 00455 - Sworn Statement on Public Entity Crimes
11. ___ Completed Section 00456 - Scrutinized Companies
12. ___ Completed Section 00457 - Vendor Conflict of Interest Disclosure Statement
13. ___ Provide requested bidder qualification information per Section 00200 - Instructions to Bidders, Articles 3.01, 3.02, 3.03, and 3.04.
14. ___ Current Insurance Certificate showing that bidder can meet the insurance requirements per Section 10.11 of the Contract Agreement, Section 6.03 of the General Conditions.
15. ___ Signed copy of all Addenda.

Submit one (1) original and two (2) copies of all documents listed above. Original shall be clearly marked "Original".

Failure to provide the above listed items may result in your bid being deemed non-responsive.

END OF SECTION

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BID FORM

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

VILLAGE OF PALM SPRINGS

C/O Kimberly Wynn, Village Clerk

226 Cypress Lane, Palm Springs, FL 33461

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 120 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions, if any, at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Village of Palm Springs

Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator – Bid Form

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
1	GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION	1	LS		
2	MOBILIZATION/DEMOBILIZATION	1	LS		
3	PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES	1	LS		
4	PLUG AND ABANDON EXISTING WELL AND WELLHEAD/SITWORK DEMOLITION	1	LS		
5	DRILL NOMINAL 6-INCH DIAMETER PROFILE WELL TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON	1	LS		
6	FURNISH, INSTALL, AND GROUT 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT	40	FT		
7	DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD	80	FT		
8	PERFORM GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS	2	EA		
9	FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC CASING	120	FT		
10	CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC CASING IN PLACE	178	94 LB SKS		
11	DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD	80	FT		
12	FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN	80	FT		
13	FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING	120	FT		
14	FURNISH AND INSTALL WELL GRAVEL PACK	176	CF		
15	PERFORM AIRLIFT WELL DEVELOPMENT	50	HR		
16	OPTIONAL: WELL ACIDIZATION MOBILIZATION	1	LS		
17	OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl	1,800	GAL		
18	PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEANOUT OF BOREHOLE	50	HR		
19	PERFORM PUMP DEVELOPMENT	80	HR		
20	CONDUCT STEP-RATE PUMP TEST	8	HR		
21	COMPLETE WELL VIDEO LOGGING	1	LS		
22	WELL DISINFECTION AND SAMPLING	1	LS		

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
23	WATER QUALITY SAMPLING AND BACTERIOLOGICAL SAMPLING	1	LS		
24	FORMATION WATER DISPOSAL SYSTEM	1	LS		
25	FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN	1	LS		
26	FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING	1	LS		
27	SITework (INCLUDING PERIMETER FENCING AND RESTORATION)	1	LS		
28	FURNISH & INSTALL 20" LINE STOP	2	EA		
29	FURNISH AND INSTALL UNDERGROUND LP STORAGE TANKS	1	LS		
30	FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT	1	LS		
31	ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIP.)	1	LS		
32	OWNER'S ALLOWANCE	1	CI	\$50,000	\$50,000

Total of All Unit Price Bid Item Nos. 1 thru 32	\$
--	-----------

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete within **390** calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **420** calendar days after the date when the Contract Times commence to run.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

Total of Lump Sum and Unit Price Bids = Total Bid Price \$ _____

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. List of Project References;
- E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
- F. Contractor's License No.: **[or]** Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- G. Required Bidder Qualification Statement with supporting data;

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:

[Signature]

[Printed name]

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature]

[Printed name]

Title:

Submittal Date:

Address for giving notices:

Telephone Number:

Fax Number:

Contact Name and e-mail address:

Bidder's License No.:

(where applicable)

NOTE TO USER: *Use in those states or other jurisdictions where applicable or required.*

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

Village of Palm Springs
226 Cypress Lane
Palm Springs Fl. 33461

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND

Bond Number:

Date:

Penal sum

\$

(Words)

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)

(Seal)

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By:

Signature

By:

Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest:

Signature

Attest:

Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SECTION 00431
TABULATION OF SUBCONTRACTORS AND SUPPLIERS

The Undersigned states that the following is a full and complete list of the proposed subcontractors and suppliers on this Project and the class of work to be performed by each and that such list will not be added to nor altered without written consent to the Owner through the Engineer.

<u>SUBCONTRACTOR OR SUPPLIER AND ADDRESS</u>	<u>CLASS OF WORK OR MATERIAL</u>
(1) _____ _____	_____
(2) _____ _____	_____
(3) _____ _____	_____
(4) _____ _____	_____
(5) _____ _____	_____
(6) _____ _____	_____
(7) _____ _____	_____

BIDDER: _____

By: _____

Name: _____

Title: _____

Date: _____

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SECTION 00440
FLORIDA TRENCH SAFETY ACT CERTIFICATION

The Bidder acknowledges that included in the various items of the proposal and in the Total Bid Price are costs for complying with the most current version of the Florida Trench Safety Act (90-96, Laws of Florida). The Bidder further identifies the costs to be summarized below:

	<u>Cost</u>
1. Trench Safety Act Compliance	\$ _____
2. Special Shoring	\$ _____

Identify method of compliance for Item #1: _____

Identify or attach a copy of Special Shoring Requirements for Item #2: _____

The undersigned certifies that he/she is the Contractor who will perform the trench excavation for this project and hereby gives written assurance that Contractor will comply with the applicable trench safety standards specifically set forth in Florida's Trench Safety Act (90-96, Laws of Florida).

BIDDER: _____

By: _____

Name: _____

Title: _____

Sworn to and subscribed before me this _____ day of _____, 20__.

Notary Public

My Commission Expires: _____

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QUALIFICATIONS STATEMENT

**THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT
PERMITTED BY LAWS AND REGULATIONS**

1. SUBMITTED BY:

Official Name of Firm: _____

Address: _____

2. SUBMITTED TO:

3. SUBMITTED FOR:

Owner: _____

Project Name: _____

TYPE OF WORK:

4. CONTRACTOR'S CONTACT INFORMATION

Contact Person: _____

Title: _____

Phone: _____

Email: _____

5. AFFILIATED COMPANIES:

Name: _____

Address: _____

6. TYPE OF ORGANIZATION:

☐ SOLE PROPRIETORSHIP

Name of Owner: _____

Doing Business As: _____

Date of Organization: _____

☐ PARTNERSHIP

Date of Organization: _____

Type of Partnership: _____

Name of General Partner(s): _____

☐ CORPORATION

State of Organization: _____

Date of Organization: _____

Executive Officers:

- President: _____

- Vice President(s): _____

- Treasurer: _____

- Secretary: _____

☐ LIMITED LIABILITY COMPANY

State of Organization:

Date of Organization:

Members:

☐ JOINT VENTURE

Sate of Organization:

Date of Organization:

Form of Organization:

Joint Venture Managing Partner

- Name:

- Address:

Joint Venture Managing Partner

- Name:

- Address:

Joint Venture Managing Partner

- Name:

- Address:

7. LICENSING

Jurisdiction: _____

Type of License: _____

License Number: _____

Jurisdiction: _____

Type of License: _____

License Number: _____

8. CERTIFICATIONS

CERTIFIED BY:

Disadvantage Business Enterprise: _____

Minority Business Enterprise: _____

Woman Owned Enterprise: _____

Small Business Enterprise: _____

Other (_____): _____

9. BONDING INFORMATION

Bonding Company: _____

Address: _____

Bonding Agent: _____

Address: _____

Contact Name: _____

Phone: _____

Aggregate Bonding Capacity: _____

Available Bonding Capacity as of date of this submittal: _____

EJCDC® C-451, Qualifications Statement.

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***NOTE:** AN **AFFIDAVIT** WILL BE REQUIRED AT BID TIME FROM THE BONDING COMPANY (MIN. RATING A-) CERTIFYING THE ABOVE INDICATED BONDING CAPACITIES. ONCE AWARD OF CONTRACT IS ISSUED, THE CONTRACTOR MUST PROVIDE THE **VILLAGE** WITH A **PERFORMANCE AND PAYMENT BOND** FOR 100 PERCENT (100%) OF THE CONTRACT PRICE IN ACCORDANCE WITH SECTION 255.05, FLORIDA STATUTES. SAID BOND MUST BE **RECORDED** IN THE OFFICIAL RECORDS IN AND FOR PALM BEACH COUNTY AND A CERTIFIED COPY OF THE RECORDED BOND MUST BE PROVIDED TO THE VILLAGE PRIOR TO THE CONTRACTOR PROVIDING ANY SERVICES UNDER THE CONTRACT.

10. FINANCIAL INFORMATION

Financial Institution: _____

Address: _____

Account Manager: _____

Phone: _____

THE **VILLAGE** RETAINS THE RIGHT TO REQUEST ADDITIONAL FINANCIAL STATEMENTS AFTER BID OPENING AND PRIOR TO CONTRACT AWARD AT ITS OWN DISCRETION.

11. CONSTRUCTION EXPERIENCE:

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

12. SAFETY PROGRAM:

Name of Contractor's Safety Officer: _____

Include the following as attachments:

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) OSHA No. 300 - Log & Summary of Occupational Injuries & Illnesses for the past 5 years.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all safety citations or violations under any state all received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide the following for the firm listed in Section V (and for each proposed Subcontractor furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) the following (attach additional sheets as necessary):

Workers' compensation Experience Modification Rate (EMR) for the last 5 years:

YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____

Total Recordable Frequency Rate (TRFR) for the last 5 years:

YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____

Total number of man-hours worked for the last 5 Years:

YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____

Provide Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) Days Away From Work, Days of Restricted Work Activity or Job Transfer (DART) incidence rate for the particular industry or type of Work to be performed by Contractor and each of Contractor's proposed Subcontractors and Suppliers) for the last 5 years:

YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____

13. EQUIPMENT:

MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.

I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HERewith, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: _____

BY: _____

TITLE: _____

DATED: _____

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME

THIS _____ DAY OF _____, 20__

NOTARY PUBLIC - STATE OF _____

MY COMMISSION EXPIRES: _____

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Affidavit from Bonding Company certifying current bonding capacity/limits as listed in Section 9.
5. Evidence of authority for individuals listed in Section 6 to bind organization to an agreement.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Required safety program submittals listed in Section 12.
8. Additional items as pertinent.

SCHEDULE A

CURRENT EXPERIENCE

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE C - LIST OF MAJOR EQUIPMENT AVAILABLE

[illegible]

SECTION 00452
BIDDER'S STATEMENT OF DISPUTES, LITIGATION,
ARBITRATION, AND SURETY COMPLETION
LAST THREE (3) YEARS

<u>PROJECT</u>	<u>NAME AND ADDRESS OF OWNER OR ENGINEER</u>	<u>NAME AND PHONE OF OWNER OR ENGINEER REPRESENTATIVE</u>	<u>DATE OF CONTRACT</u>	<u>AMOUNT</u>	<u>STATUS</u>
----------------	--	---	-----------------------------	---------------	---------------

(Signed)_____

SECTION 00453
NONCOLLUSION AFFIDAVIT

TO: The _____, herein called the "Owner."

Pursuant to bidding requirements for the work titled "_____
_____,

the enclosed contract documents shall be provided to the Owner.

State of _____

County of _____

_____, being first duly
(Officer's Name)

sworn, deposes, and says that:

- A. He\She is _____ (officer's title)
of _____ (company name),
the Bidder that has submitted the attached bid;
- B. He\She is fully informed respecting the preparation and contents of the attached
bid and of all pertinent circumstances respecting such bid;
- C. Such bid is genuine and is not a collusive or sham bid;
- D. Neither the said Bidder nor any of its officers, partners, owners, agents,
representatives, employees, or parties in interest, including this affiant, has in any
way colluded, conspired, connived, or agreed, directly or indirectly with any other
Bidder, firm, or person to submit a collusive or sham bid in connection with the
contract for which the attached bid has been submitted or to refrain from bidding
in connection with such contract, or has in any manner, directly or indirectly,
sought by agreement or collusion or communication or conference with any other
Bidder, firm, or person to fix the price or prices in the attached bid or of any other
Bidder, or to fix any overhead, profit, or cost element of the bid price or the bid
price of any other Bidder, or to secure through any collusion, conspiracy,
connivance, or unlawful agreement any advantage against the Village of Palm
Springs or any person interested in the proposed contract; and

- E. The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

Subscribed and sworn to before me
this _____ day of _____, 20 _____

Notary Public

My commission expires _____

SECTION 00454
DRUG-FREE WORKPLACE CERTIFICATE

I, the undersigned, in accordance with Florida Statute 287.087, hereby certify that _____

(Print or Type Name of Firm)

- Publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace named above, and specifying actions that will be taken against violations of such prohibition.
- Informs employees about the dangers of drug abuse in the workplace; the firm's policy of maintaining a drug-free working environment and available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug-use violations.
- Gives each employee engaged in providing commodities or contractual services that are under bid or proposal a copy of the statement specified above.
- Notifies the employees that as a condition of working on the commodities or contractual services under bid or proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of or plea of guilty or nolo contendere to any violation of Chapter 1893 or any controlled substance law of the State of Florida or the United States for a violation occurring in the workplace, no later than 5 days after such conviction, and requires employees to sign copies of such written statement to acknowledge their receipt.
- Imposes a sanction on or requires the satisfactory participation in a drug-abuse assistance or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
- Makes a good faith effort to continue to maintain a drug-free workplace through the implementation of the drug-free workplace program.

"As a person authorized to sign this statement, I certify that the business, firm, or corporation named above complies fully with the requirements set forth herein."

Authorized Signature

Date Signed

State of: _____

County of: _____

Sworn to and subscribed before me this day of _____, 20__

Personally known or Produced Identification _____
(Specify Type of Identification)

Signature of Notary

My Commission Expires _____

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SECTION 00455
SWORN STATEMENT UNDER SECTION 287.133(3)(a),
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

(To be signed in the presence of a notary public or other
officer authorized to administer oaths.)

STATE OF _____

COUNTY OF _____

Before me, the undersigned authority, personally appeared _____, who, being
by me first duly sworn, made the following statement:

1. The business address of _____
(firm name of Bidder/Contractor)
is _____.

2. My relationship to _____
(firm name of Bidder/Contractor)
is _____.
(relationship such as sole proprietor, partner, president, vice president)

3. I understand that a "public entity crime" as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or such an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

4. I understand that "convicted" or "conviction" is defined by the statute to mean a finding of guilt or a conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

5. I understand that "affiliate" is defined by the statute to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime; or (2) an entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime; or (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate; or (4) a person or corporation who knowingly entered into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.

6. Neither the Bidder/Contractor nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Bidder/Contractor, nor any affiliate of the Bidder/Contractor, has been convicted of public entity crime subsequent to July 1, 1989.

(Draw a line through Paragraph 6 if Paragraph 7 below applies.)

7. There has been a conviction of a public entity crime by the Bidder/Contractor, or an officer, director, executive, partner, shareholder, employee, member or agent of the Bidder/Contractor who is active in the management of the Bidder/Contractor or an affiliate of the Bidder/Contractor. A determination has been made pursuant to Section 287.133(3) by order of the Division of Administrative Hearings that it is not in the public interest for the name of the convicted person or affiliate to appear on the convicted vendor list. The name of the convicted person or affiliate is_____.

A copy of the order of the Division of Administrative Hearings is attached to this statement.

(Draw a line through Paragraph 7 if Paragraph 6 above applies.)

(Signature)

Sworn to and subscribed to before me in the State and County first mentioned above on the_____ day of _____, 20_____.

Notary Public

(affix seal)

My commission expires

SECTION 00456
SCRUTINIZED COMPANIES CERTIFICATION FORM

By execution below, I, _____, on behalf of _____ (hereinafter, the "Contractor"), hereby swear or affirm to the following certifications:

The following certifications apply to all procurements:

1. The Contractor has reviewed section 215.4725, Florida Statutes, section 215.473, Florida Statutes and section 287.135, Florida Statutes, and understands the same.
2. The Contractor is not on the Scrutinized Companies that Boycott Israel List nor is the Contractor engaged in a boycott of Israel.
3. If awarded a contract, the Contractor agrees to require these certifications for applicable subcontracts entered into for the performance of work/services under this procurement.
4. If awarded a contract, the Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the entire term of the contract, including any and all renewals.

If the contract awarded hereunder is for one million dollars or more, the following additional certifications apply:

1. The Contractor is not on the Scrutinized Companies with Activities in Sudan List.
2. The Contractor is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.
3. The Contractor is not engaged in business operations in Cuba or Syria.
5. If awarded a contract, the Contractor agrees to require these certifications for applicable subcontracts entered into for the performance of work/services under this procurement.
6. If awarded a contract, the Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the entire term of the contract, including any and all renewals.

CONTRACTOR:

By: _____

Name: _____

Title: _____

Date: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was sworn to (or affirmed) and subscribed before this _____ day of _____, 20____, by _____, who is the _____ of _____, who is personally known to me or who has produced _____ as identification.

NOTARY PUBLIC

Printed Name of Notary _____

My Commission expires: _____

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Vendor Conflict of Interest Disclosure Statement Information and Instructions

The award of this contract is subject to the provisions of Chapter 112, Part III, *Florida Statutes*, and section 6.02 of the Charter of the Village of Palm Springs. The Village requires all potential vendors, as defined herein, to complete and submit this Conflict of Interest Disclosure Statement in connection with any competitive purchase in excess of \$7,500.00.

The purpose of this disclosure form is to give the Village the information needed to identify potential conflicts of interest for evaluation team members, public officials, and other key personnel involved in the award of this contract and to take appropriate remedial measures. The information disclosed will not necessarily be deemed a conflict of interest or result in disqualification. If you are unsure whether certain information is responsive, you should include it in the disclosure.

The original disclosure statement shall be maintained by the Village Clerk, with a copy retained by the Finance Department.

- The Village will not enter into any contract or purchase order with any vendor who fails or refuses to provide all information required in the disclosure form.
- For vendors consisting of partnerships or joint ventures, each member of the partnership or joint venture is required to complete and submit the form.
- Any vendor who provides incorrect, misleading, or incomplete information on the disclosure statement shall be disqualified from participation.
- If the Village discovers misleading, incorrect, or incomplete information on the disclosure statement subsequent to the execution of a contract, the contract will be voidable by the Village;
- Serious and/or repeated failure to provide complete and accurate information on the Conflict of Interest Disclosure Form may lead to suspension or debarment of the vendor pursuant to Sec. 58-16 of the Village Code.

DEFINITIONS

"Business Entity" means any corporation, partnership, limited partnership, company, limited liability company, proprietorship, firm, enterprise, franchise, association, self-employed individual, or trust, whether fictitiously named or not, doing business in the State of Florida.

"Conflict of Interest" means a situation in which regard for a private interest tends to lead to disregard of a public duty or interest.

"Financial interest" means direct or indirect ownership or other interest that may result in special private gain or loss.

"Person" means an individual, firm, partnership, association, joint venture, cooperative, or corporation, or any other group or combination acting in concert.

“Public Official” includes any person elected or appointed to hold office in any agency, including any person serving on an advisory body.

“Relative” means an individual who is related to a public officer or employee as a father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half-brother, half-sister, grandparent, great grandparent, grandchild, great-grandchild, step-grandparent, step great grandparent, step-grandchild, step great-grandchild, a person who is engaged to be married to the public officer or employee or who otherwise holds himself or herself out as or is generally known as the person whom the public officer or employee intends to marry or with whom the public officer or employee intends to form a household, or any other natural person having the same legal residence as the public officer or employee.

“Vendor” means (1) any business entity or person submitting a response to an invitation to bid, request for proposals, request for qualifications, or other solicitation in connection with the procurement of goods or services; or (2) any business entity or person entering into a contract or purchase order in excess of \$7,500.00 with the Village.

INSTRUCTIONS

Complete all lines as indicated. If the answer to any question is "None," so indicate. If an item does not apply, denote N/A (not applicable). If you cannot include the required information in the space provided, attach additional sheets as necessary.

VILLAGE OF PALM SPRINGS VENDOR CONFLICT OF INTEREST DISCLOSURE FORM

NAME OF VENDOR

NAME OF PERSON COMPLETING FORM

RELATIONSHIP TO VENDOR

ADDRESS

CITY, STATE, ZIP

TELEPHONE NUMBER

CONTACT EMAIL ADDRESS
PHONE NUMBER

CELL

This form is provided in connection with:

- ☐ Invitation to Bid (specify) _____
- ☐ Request for Proposal / Qualifications (specify) _____
- ☐ Other (specify) _____

1. List below the name(s), titles and address(es) of all **public officials and employees** of the Village having an **employment or contractual relationship with the Vendor** and describe the nature and extent of the relationship.

2. List below the name(s), titles and address(es) of all **relatives of public officials and employees** of the Village having an **employment or contractual relationship with the Vendor**, state to whom and how they are related, and describe the nature and extent of the employment or contractual relationship with the vendor.

3. List below the name(s), titles and address(es) of all **public officials and employees** of the Village having any direct or indirect **financial interest in the Vendor** (other than a relationship described in response to paragraph no. 1, above) and describe the nature and extent of the interest.

4. List below the name(s), titles and address(es) of all **relatives of public officials and employees** of the Village having any direct or indirect **financial interest in the Vendor** (other than a relationship described in response to paragraph no. 2, above), state to whom and how they are related, and describe the nature and extent of the financial interest.

5. Describe any other circumstances of which you are aware that may give rise to a conflict of interest with respect to the award of the contract referenced above to the Vendor.

Under penalties of perjury, I declare that I have read the foregoing VENDOR CONFLICT OF INTEREST DISCLOSURE FORM and that the facts stated in it are true and complete to the best of my knowledge after diligent inquiry. I understand that any untrue or incomplete statements herein shall be cause for disqualification from participation in the proposed transaction. I further understand that I am under a continuing duty to supplement this form to correct any errors or omissions and to provide newly discovered information.

Signature

Date

Printed Name

Title

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PART 2



CONTRACT FORMS

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NOTICE OF AWARD

Date of Issuance: Project Bid No. (ITB #): 2024B - 015
Owner: Village of Palm Springs Owner's Task Order No.:
Engineer: Holtz Consulting Engineers, Inc. Engineer's Project No.: 112_2401
Project: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator Contract Name:

Bidder:

Bidder's Address:

TO BIDDER:

You are notified that Owner has accepted your Bid dated [] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

[describe Work, alternates, or sections of Work awarded]

The Contract Price of the awarded Contract is: \$ [] *[note if subject to unit prices, or cost-plus]*

[] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. *[revise if multiple copies accompany the Notice of Award]*

☐ a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of this Notice of Award:

1. Deliver to Owner [] counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security *[e.g., performance and payment bonds]* and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner:

Authorized Signature

By:

Title:

Copy: Engineer

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AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between Village of Palm Springs ("Owner") and
("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator

ARTICLE 3 – ENGINEER

3.01 The part of the Project that pertains to the Work has been designed by Holtz Consulting Engineers, Inc..

3.02 The Owner has retained Holtz Consulting Engineers, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Contract Times: Days

A. The Work will be substantially completed within 390 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 420 days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or other proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of

requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$500.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500.00 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 Special Damages

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work other than Unit Price Work, a lump sum of: N/A.

All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.

- B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

Unit Price Work					
Item No.	Description	Unit	Est. Quantity	Unit Price	Extended Price
1	GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION	LS	1		
2	MOBILIZATION/DEMOBILIZATION	LS	1		
3	PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES	LS	1		
4	PLUG AND ABANDON EXISTING WELL AND WELLHEAD/SITWORK DEMOLITION	LS	1		
5	DRILL NOMINAL 6-INCH DIAMETER PROFILE WELL TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON	LS	1		
6	FURNISH, INSTALL, AND GROUT IN PLACE 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT	FT	40		
7	DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD	FT	80		
8	PERFORM GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS	EA	2		
9	FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC CASING	FT	120		

Unit Price Work					
Item No.	Description	Unit	Est. Quantity	Unit Price	Extended Price
10	CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC CASING IN PLACE	94 LB SKS	178		
11	DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD	FT	80		
12	FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN	FT	80		
13	FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING	FT	120		
14	FURNISH AND INSTALL WELL GRAVEL PACK	CF	176		
15	PERFORM AIRLIFT WELL DEVELOPMENT	HR	50		
16	OPTIONAL: WELL ACIDIZATION MOBILIZATION	LS	1		
17	OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl	GAL	1,800		
18	PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEANOUT OF BOREHOLE	HR	50		
19	PERFORM PUMP DEVELOPMENT	HR	80		
20	CONDUCT STEP-RATE PUMP TEST	HR	8		
21	COMPLETE WELL VIDEO LOGGING	LS	1		
22	WELL DISINFECTION AND SAMPLING	LS	1		
23	WATER QUALITY SAMPLING AND BACTERIOLOGICAL SAMPLING	LS	1		
24	FORMATION WATER DISPOSAL SYSTEM	LS	1		
25	FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN	LS	1		
26	FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING	LS	1		
27	SITWORK (INCLUDING PERIMETER FENCING AND RESTORATION)	LS	1		
28	FURNISH AND INSTALL 20" LINE STOP	EA	2		
29	FURNISH AND INSTALL UNDERGROUND LP STORAGE TANKS	LS	1		
30	FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT	1	LS		
31	ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIP.)	1	LS		
32	OWNER'S ALLOWANCE	1	CI	\$50,000	\$50,000
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)					\$

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

- C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment)
\$.

- D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Payment to the Contractor shall be made pursuant Florida's Prompt Payment Act (for construction services), section 218.735, Florida Statutes (2024), except as provided herein. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer on or about the **20th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Progress payments will be made in an amount equal to the percentages indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with the General Conditions, less liquidated damages, if any.

95% of Work completed.

95% of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to Owner as provided in the General Conditions).

Upon **50%** of the Work being completed, the Contractor may request from Engineer that Owner release a portion of the retainage not to exceed **50%** of the then current total retainage amount being withheld.

Within 20 business days after the Owner's delivery of the finalized punch-list to the Contractor, the Owner will pay the Contractor the remaining Contract balance that includes all retainage previously withheld by the Owner less an amount equal to **150%** of the estimated cost to complete the items on the punch-list. Once all items on the punch-list are completed as confirmed by the Engineer, the Contractor may request payment for the **150%** amount withheld for completion of the punch-list.

Notwithstanding the foregoing, the City shall not be required to pay or release any amounts that are subject of a good faith dispute made in writing pursuant to the Contract Documents or the subject of a claim brought pursuant to section 255.05, Florida Statutes.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions (including all punch-list items and settlement of all claims, including liquidated damages) and final inspection by the appropriate agency with jurisdiction over the project (if other than the Owner), the Contractor shall submit a "final invoice" to the Owner. In order for both parties to close their books and records, the Contractor will clearly

state "FINAL" on the Contractor's final invoice. This certifies that all Work has been properly completed and all charges have been invoiced to the Owner. Since this account will thereupon be closed, any and other further charges if not properly included in this final invoice are waived by the Contractor. If the Contractor's Final Invoice is approved as set forth above, the Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06. Notwithstanding the foregoing, the City shall not be required to pay or release any amounts that are subject of a good faith dispute made in writing pursuant to the Contract Documents or the subject of a claim brought pursuant to section 255.05, Florida Statutes.

- 6.04 *Punch-List Process.* In accordance with section 218.735(7), Florida Statutes (2024) and section 15.03 of the General Conditions, prior to declaring the Work substantially complete the Engineer, Owner, and Contractor shall inspect the Work and the Engineer shall create a proposed punch-list of items that must be completed by the Contractor before the Contractor is authorized to submit for final payment. The proposed punch-list must include all items of Work which remain to be completed and the estimated cost to complete each Work item on the list. Upon receipt of the Engineer's proposed punch-list, the Contractor and Owner will have seven (7) days to review, make modifications, or agree to the proposed punch-list and estimated costs. The Engineer will resolve any disputes in the punch-list and deliver the final punch-list to the Owner and Contractor along with the final certificate of substantial completion. **Once the punch-list is finalized and delivered to the Owner and Contractor, the Contractor shall have thirty (30) calendar days to complete all Work on the punch-list.** The failure of either party to include any corrective work or pending items on the finalized punch-list does not alter the responsibility of the Contractor to complete all Work and the Project. The Engineer's proposed punch-list, modifications thereto and finalized punch-list may be by informal written notice (e.g., email, fax, or hand-delivery); however, proof of delivery shall be kept by the person providing the informal written notice to the other.

ARTICLE 7 – INTEREST

- 7.01 All amounts not paid when due shall bear interest at the rate set forth in section 218.735, Florida Statutes (as amended from time to time).

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if

any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 16, inclusive).
 - 2. Performance bond (pages 1 to 3, inclusive).
 - 3. Payment bond (pages 1 to 3, inclusive).
 - 4. Other bonds.
 - a. (pages to , inclusive).
 - b. (pages to , inclusive).
 - c. (pages to , inclusive).
 - 5. General Conditions (pages 1 to 65, inclusive).
 - 6. Supplementary Conditions (pages 1 to 10, inclusive).
 - 7. Specifications as listed in the table of contents of the Project Manual.
 - 8. Drawings (not attached but incorporated by reference) consisting of 24 sheets with each sheet bearing the following general title: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator [or] the Drawings listed on the attached sheet index.

9. Addenda (numbers █ to █, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages █ to █, inclusive).
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.
- E. *Governing Order of Contract Documents* - The Contract Documents include various divisions, sections and conditions which are essential parts for the work to be provided by the Contractor. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, the following precedence will govern the interpretation of the Contract Documents prior to award of the Contract:
 1. Agreement
 2. Addenda to Invitation to Bid (solicitation)
 3. Instructions to Bidders
 4. Special Conditions
 5. Supplementary Conditions
 6. General Conditions
 7. Technical Specifications
 8. Details
 9. City Standard Details
 10. Drawings/Plans
 11. Bid Form

After award, Work Change Directives, Change Orders, amendments and revisions to plans and specifications will take precedence over any of the above. In case of discrepancy among technical specifications, drawings and plans, the most restrictive shall govern. Detailed plans shall have precedence over general plans. In the event that any conflicts cannot be resolved by reference to this Governing Order of Contract Documents provision, then City shall resolve the conflict in any manner which is acceptable to City and which comports with the overall intent of the Contract Documents.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract Documents, no assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract Documents. For the purposes of this Paragraph 10.05:
 - 1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Indemnity*

- A. The parties recognize that the CONTRACTOR is an independent contractor. The CONTRACTOR agrees to assume liability for and indemnify, hold harmless, and defend the Owner, its council members, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONTRACTOR, its agents, officers, contractors, subcontractors, employees, or anyone else utilized by the CONTRACTOR in the performance of the Contract Documents. The CONTRACTOR's liability hereunder shall include all attorney's fees and costs incurred by the Owner in the enforcement of this indemnification provision. This includes claims made by the employees of the CONTRACTOR against the Owner and the CONTRACTOR hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. The obligations contained in this provision shall survive termination of the Contract Documents and shall not be limited by the amount of any insurance required to be obtained or maintained under the Contract Documents.
- B. Subject to the limitations set forth in this Section, CONTRACTOR shall assume control of the defense of any claim asserted by a third party against the Owner and, in connection with such defense, shall appoint lead counsel, in each case at the CONTRACTOR's expense. The Owner shall have the right, at its option, to participate in the defense of any third party claim, without relieving CONTRACTOR of any of its obligations hereunder. If the CONTRACTOR assumes control of the defense of any third party claim in accordance with this paragraph, the CONTRACTOR shall obtain the prior written consent of the Owner before entering into any settlement of such claim. Notwithstanding anything to the contrary in this Section, the CONTRACTOR shall not assume or maintain control of the defense of any third party claim, but shall pay the fees of counsel retained by the Owner and all expenses, including experts' fees, if (i) an adverse determination with respect to the third party claim would, in the good faith judgment of the Owner, be detrimental in any material respect to the Owner's reputation; (ii) the third party claim seeks an injunction or equitable relief against the Owner; or (iii) the CONTRACTOR has failed or is failing to prosecute or defend vigorously the third party claim. Each party shall cooperate, and cause its agents to cooperate, in the defense or prosecution of any third party claim and shall furnish or cause to be furnished such records and information, and attend such conferences, discovery proceedings, hearings, trials, or appeals, as may be reasonably requested in connection therewith.
- C. It is the specific intent of the parties hereto that the foregoing indemnification complies with Section 725.06, Florida Statutes, as amended. CONTRACTOR expressly agrees that it will not claim, and waives any claim, that this indemnification violates Section 725.06, Florida Statutes. Nothing contained in the foregoing indemnification shall be construed as a waiver of any immunity or limitation of liability the Owner may have under the doctrine of sovereign immunity or Section 768.28, Florida Statutes.

10.07 *Governing Law and Remedies*

- A. The validity of this Agreement and of any of its terms or provisions, as well as the rights and duties of the parties hereunder, shall be governed by the laws of the State of Florida and venue for any and all disputes related to or arising from this Agreement shall be exclusively in Palm Beach County, Florida.

- B. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

10.08 *Office of the Inspector General*

- A. Palm Beach County has established the Office of the Inspector General, which is authorized and empowered to review past, present, and proposed County programs, contracts, transactions, accounts and records. The Inspector General (IG) has the power to subpoena witnesses, administer oaths, require the production of records, and monitor existing projects and programs. The Inspector General may, on a random basis, perform audits on all of the Owner's contracts.

10.09 *Scrutinized Companies*

- A. Contractor certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List and are not engaged in the boycott of Israel. Pursuant to section 287.135, Florida Statutes, the Owner may immediately terminate this Agreement at its sole option if the Contractor or any of its subcontractors are found to have submitted a false certification; or if the Contractor or any of its subcontractors, are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of the Contract Documents.
- B. The Contractor agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under the Contract Documents. The Contractor agrees that the certifications in this section shall be effective and relied upon by the Owner for the term of the Contract Documents, including any and all renewals. The Contractor agrees that if it or any of its subcontractors' status changes in regards to any certification herein, the Contractor shall immediately notify the Owner of the same. As provided in Subsection 287.135(8), Florida Statutes, if federal law ceases to authorize the above-stated contracting prohibitions then they shall become inoperative.

10.10 *Public Records*

- A. The CONTRACTOR shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the Owner as provided under section 119.011(2), Florida Statutes, specifically agrees to:
 - 1. Keep and maintain public records required by the Owner to perform the service.
 - 2. Upon request from the Owner's custodian of public records or designee, provide the Owner with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 - 3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract Documents and following completion of the Contract Documents if the Contractor does not transfer the records to the Owner.
 - 4. Upon completion of the Contract Documents, transfer, at no cost, to the Owner all public records in possession of the Contractor or keep and maintain public records required by the Owner to perform the service. If the Contractor transfers all public records to the Owner upon completion of the Contract Documents, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt

from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Owner, upon request from the Owner's custodian of public records or designee, in a format that is compatible with the information technology systems of the Owner.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THE CONTRACT DOCUMENTS, CONTACT THE CUSTODIAN OF PUBLIC RECORDS OR DESIGNEE AT 561-584-8200 ext. 8430, kwynn@vpsfl.org, OR BY MAIL AT VILLAGE OF PALM SPRINGS, 226 CYPRESS LANE, PALM SPRINGS, FL 33461.

10.11 *Insurance*

A. The limits of liability for insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Law and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

a. State	Statutory
b. Applicable Federal	Statutory
c. Employer Liability:	
Bodily injury, each accident	\$1,000,000
Bodily injury by disease, each employee	\$500,000
Bodily injury/disease aggregate	\$1,000,000
d. Foreign voluntary worker compensation	Statutory

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

a. General Aggregate	\$2,000,000
b. Products – Completed Operations Aggregate	\$2,000,000
c. Personal and Advertising Injury	\$1,000,000
d. Each Occurrence/Per Claim (Bodily Injury and Property Damage)	\$1,000,000

3. Automobile Liability under paragraph 6.03.D of the General Conditions:

a. Bodily Injury:	
Each Person	\$500,000
Each Accident	\$1,000,000
b. Property Damage:	
Each Incident	\$1,000,000

4. Umbrella of Excess Liability under paragraph 6.03.E of the General Conditions:
 - a. Excess or Umbrella Liability
 - 1) General Aggregate \$5,000,000
 - 2) Each Occurrence/Per Claim \$1,000,000
5. Contractor's Pollution Liability under paragraph 6.03.F of the General Conditions:
 - a. Contractor's Pollution Liability
 - 1) General Aggregate \$2,000,000
 - 2) Each Occurrence/Per Claim \$1,000,000
6. Additional Insureds include the respective officers, partners, directors, employees, agents, consultants, and subconsultants of the following firms and municipal government(s):
 - a. Village of Palm Springs

10.12 *Public Construction Bond*

- A. If the total contract price exceeds \$200,000 in total construction cost, the CONTRACTOR must provide the Owner with a public construction bond in accordance with section 255.05, Florida Statutes. Said bond must be recorded in the Official Records in and for Palm Beach County and a certified copy of recorded bond must be provided to the Owner prior to the CONTRACTOR providing any services under the Contract Documents. The Owner reserves the right to request a bond for any work which is less than \$200,000. The cost of the bond shall be a direct pass-through cost to the Owner without any mark-up by the CONTRACTOR.
- B. The public construction bond shall be on forms attached hereto as **Forms C-610 and C-615 "Performance" and "Payment" Bonds** or substantially similar as approved by the Owner. The bond shall be in an amount not less than the total contract price and shall incorporate by reference the terms of the Contract Documents in their entirety.
- C. To be acceptable to the Owner, a Surety Company shall comply with the following provisions:
 - a. The Surety Company shall have a currently valid Certificate of Authority, issued by the State of Florida Department of Insurance, authorizing it to write surety bonds in the State of Florida.
 - b. The Surety Company shall have a currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.
 - c. The Surety Company shall be in full compliance with the provisions of the Florida Insurance Code.
 - d. The Surety Company shall have at least twice the minimum surplus and capital required by the Florida Insurance Code at the time the contract is approved.
 - e. The Surety Company shall have at least the ratings of A-/Class V in the latest issue of Best's Key Rating Guide.
 - f. The Surety Company shall not expose itself to any loss on any one risk in an amount exceeding ten (10) percent of its surplus to policyholders, provided:
 - 1) Any risk or portion of any risk being reinsured shall be deducted in determining the limitation of the risk as prescribed in this section. These

minimum requirements shall apply to the reinsuring carrier providing authorization or approval by the State of Florida, Department of Insurance to do business in this state have been met.

- 2) In the case of the surety insurance company, in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any security deposited, pledged or held subject to the consent of the surety and for the protection of the surety shall be deducted.

10.13 *Audit by Owner*

- A. The CONTRACTOR shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the Services for at least three (3) years after completion of the Contract Documents. The CONTRACTOR shall permit the Owner, or any authorized representatives of the Owner, at all reasonable times, access to and the right to examine all records, books, papers or documents related to the CONTRACTOR's performance under the Contract Documents including, but not limited to, expenses for sub-contractors, agents or assistants, direct and indirect charges for work performed and detailed documentation for all such work performed or to be performed under the Contract Documents.

10.14 *Copies of Data/Documents*

- A. Copies or original documents prepared by the CONTRACTOR in relation to work associated with the Contract Documents shall be provided to the Owner. Data collected, stored, and/or provided shall be in a form acceptable to the Owner and agreed upon by the Owner.

10.15 *Ownership*

- A. Each and every report, draft, work product, map, record, and other document reproduced, prepared, or caused to be prepared by the CONTRACTOR pursuant to or in connection with this Agreement shall be the exclusive property of the Owner.

10.16 *Limitations of Liability*

- A. Under no circumstances shall either party be liable to the other for any consequential, incidental, special, punitive, or any other form of indirect or non-compensatory damages.

10.17 *Enforcement Costs*

- A. All parties shall be responsible for their own attorneys' fees, court costs and expenses if any legal action or other proceeding is brought for any dispute, disagreement, or issue of construction or interpretation arising hereunder whether relating to the Contract Documents' execution, validity, the obligations provided therein, or performance of the Contract Documents, or because of an alleged breach, default or misrepresentation in connection with any provisions of this Contract Documents.

10.18 *Copyrights and/or Patent Rights*

- A. CONTRACTOR warrants that there has been no violation of copyrights and/or patent rights in the manufacturing, producing or selling of the goods, shipped or ordered, as a result of this Agreement and the CONTRACTOR agrees to hold the Owner harmless from any and all liability, loss, or expense occasioned by any such violation.

10.19 *Protection of Property*

- A. The CONTRACTOR shall at all times guard against damage or loss to the property of the Owner or of other vendors or contractors and shall be held responsible for replacing or repairing any such loss or damage. The Owner may withhold payment or make such

deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the successful CONTRACTOR or its agents. The CONTRACTOR shall be responsible to safeguard all of their property such as tools and equipment while on site. The Owner will not be held responsible for any loss of CONTRACTOR property due to theft or vandalism.

10.20 *Damage to Persons or Property*

- A. The responsibility for all damage to person or property arising out of or on account of Scope of Work done under the Contract Documents shall rest upon the CONTRACTOR.

10.21 *Discrimination*

- A. The CONTRACTOR warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, political affiliation, marital status, handicap, or sexual orientation. Further, CONTRACTOR shall not discriminate or permit discrimination against any employee or an applicant for employment on the basis of race, color, sex, religion, political affiliation, natural origin, ancestry, marital status, sexual orientation or handicap.

10.22 *Construction Defects*

- A. PURSUANT TO SECTION 558.005, FLORIDA STATUTES, ANY CLAIMS FOR CONSTRUCTION DEFECTS ARE NOT SUBJECT TO THE NOTICE AND CURE PROVISIONS OF CHAPTER 558, FLORIDA STATUTES.

10.23 *Public Entity Crimes*

- A. Contractor acknowledges and agrees that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier or sub-contractor under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list. The Contractor will advise the Owner immediately if it becomes aware of any violation of this statute.

10.24 *E-Verify*

- A. Pursuant to Section 448.095(2), Florida Statutes, beginning on January 1, 2021, the CONTRACTOR shall:
 - 1. Register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all Subcontractors (providing services or receiving funding under the Contract Documents) to register with and use the E-Verify system to verify the work authorization status of all the Subcontractors' newly hired employees;
 - 2. Secure an affidavit from all Subcontractors (providing services or receiving funding under this Agreement) stating that the Subcontractor does not employ, contract with, or subcontract with an "unauthorized alien" as defined in Section 448.095(1)(k), Florida Statutes;
 - 3. Maintain copies of all Subcontractor affidavits for the duration of the Contract Documents and provide the same to the Owner upon request;

4. Comply fully, and ensure all of its Subcontractors comply fully, with Section 448.095, Florida Statutes;
5. Be aware that a violation of Section 448.09, Florida Statutes (Unauthorized aliens; employment prohibited) shall be grounds for termination of the Contract Documents; and,
6. Be aware that if the Owner terminates the Contract Documents under Section 448.095(2)(c), Florida Statutes, the Contractor may not be awarded a contract for at least 1 year after the date on which the Contract Documents are terminated and will be liable for any additional costs incurred by the Owner as a result of the termination of the Contract Documents.

10.25 *Waiver.* Failure of either party to enforce or exercise any right(s) under the Contract Documents shall not be deemed a waiver of either party's right to enforce said right(s) at any time thereafter.

10.26 *Waiver of jury trial.* TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THE CONTRACT DOCUMENTS.

10.27 *Independent Contractor.* The Contractor is, and shall be, in the performance of all Work under the Contract Documents, an Independent Contractor, and not an employee, agent, or servant of the Owner. All persons engaged in any of the Work performed pursuant to the Contract Documents shall at all times and in all places be subject to the Contractor's sole direction, supervision and control.

10.28 *Preparation.* The Contract Documents shall not be construed more strongly against either party regardless of who was more responsible for its preparation.

10.29 *Binding authority.* Contractor's representative below has full power, authority and legal right to execute and deliver these Contract Documents and perform all of its obligations under the Contract Documents. By signing the Contract Documents, the representative hereby represents to the Owner that he/she has the authority and full legal power to execute the Contract Documents and any and all documents necessary to effectuate and implement the terms of the Contract Documents on behalf of the party for whom he or she is signing and to bind and obligate such party with respect to all provisions contained in the Contract Documents.

10.30 *Assignment of warranties.* Contractor shall assign to Owner all warranties extended to Contractor by material suppliers. If an assignment of warranty requires the material supplier to consent to same, then Contractor shall secure the material supplier's consent to assign said warranties to Owner.

10.31 *Termination for failure to provide Public Construction Bond.* If a Public Construction Bond is required under the Construction Documents and the Contractor fails to provide the fully executed Public Construction Bond, including a certified copy of the Public Construction Bond as recorded in the Official Records for Palm Beach County, within fifteen (15) calendar days after the Contractor's and Owner's execution of the Contract Documents, the Owner may immediately terminate the Contract Documents upon written notice to the Contractor and the Owner shall have no further obligation to the Contractor under the Contract. In the event of such termination, the Contractor shall also forfeit its bid security to the Owner.

10.32 *Counterparts.* The Contract Documents may be executed in counterparts, each of which shall be an original, but all of which shall constitute one and the same document. Each of the parties shall sign a sufficient number of counterparts, so that each party will receive a fully executed original of the Contract Documents. The Contract Documents may be executed electronically and such electronic signature shall be treated as an original signature of the party executing the Contract Documents electronically.

REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on (which is the Effective Date of the Contract).

VILLAGE:

CONTRACTOR:

By: _____

By: _____

Title: Mayor

Title: _____

(Seal)

Attest: _____

Attest: _____

Title: Village Clerk

Title: Notary Public

Approved
as to
Form: _____

Title: Village Attorney

Address for giving notices:

226 Cypress Lane

Palm Springs FL, 33461

Address for giving notices:

License No.: _____

(where applicable)



NOTICE TO PROCEED

Owner: Village of Palm Springs Owner's Task Order No.:

Contractor: Project Bid No. (ITB #): 2024B - 015

Engineer: Holtz Consulting Engineers, Inc. Engineer's Project No.: 112_2401

Project: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator

Effective Date of Contract: _____

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on _____.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, the date of Substantial Completion is _____, and the date of readiness for final payment is _____.

Before starting any Work at the Site, Contractor must comply with the following:

Receipt and approval of preconstruction video
SFWMD Well Construction Permit
Village of Palm Springs Building Permit
Shop Drawing Approvals as necessary
Dewatering Plans including any permits necessary
Submittal of progress schedule
Palm Beach County Health Department Well Permits
And all other requirements indicated in this Contract

Owner:

Authorized Signature

By:

Title:

Date Issued:

Copy: Engineer

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PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER

Village of Palm Springs
226 Cypress Lane
Palm Springs, FL 33461

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence,

to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims

for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER

Village of Palm Springs
226 Cypress Lane
Palm Springs, FL 33461

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)

Contractor's Name and Corporate Seal

By: _____

Signature

Print Name

Title

Attest: _____

Signature

Title

(seal)

Surety's Name and Corporate Seal

By: _____

Signature *(attach power of attorney)*

Print Name

Title

Attest: _____

Signature

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
- 16.1 **Claim:** A written statement by the Claimant including at a minimum:
1. The name of the Claimant;
 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 4. A brief description of the labor, materials, or equipment furnished;
 5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
18. Modifications to this Bond are as follows:

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PART 3



CONTRACT CONDITIONS

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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



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These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

- c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
- 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
- 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 - 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 - 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall only be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
- d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
- 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*

- a. Contractor shall submit the number of Samples required in the Specifications.
- b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable

thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Contractor shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Contractor, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 - 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 - 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
 - 1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 - 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for

expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

SC-1.01 Defined Terms

SC-1.01. Add to the list of definitions in Paragraph 1.01.A by inserting the following as numbered items in their proper alphabetical positions:

SURETY – The person, firm, or corporation which is bound by the contract bonds with and for Contractor (Principal); and which is held and firmly bound unto Owner for the conditions of obligations set forth in said bonds.

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.01 Delivery of Bonds and Evidence of Insurance

SC-2.01 Delete Paragraphs 2.01 B. in their entirety and insert the following in their place:

B. Evidence of Contractor's Insurance: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies of insurance (including all endorsements, and identification of applicable self-insured retentions and deductibles) required to be provided by Contractor in Article 6. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

SC-2.01 Delete Paragraphs 2.01 C. in its entirety.

SC-2.03 Before Starting Construction

SC-2.03 Amend the second sentence of Paragraph 2.03.A to read as follows:

At the Preconstruction Conference (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review

ARTICLE 4 – PRELIMINARY MATTERS

SC-4.01 *Commencement of Contract Times; Notice to Proceed*

SC-4.01 Amend the third sentence of Paragraph 4.01 A. to read as follows:

- A. In no event will the Contract Times commence to run later than the one hundred eightieth day after the day of Bid opening or the ninetieth day after the Effective Date of the Contract, whichever date is earlier.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.01 *Availability of Lands*

SC-5.01 Add the following to the end of paragraph 5.01.C:

Contractor shall obtain said land rights at his own expense and without liability to the Owner. Contractor shall not enter upon private property without first obtaining written permission from the rightful property owner.

SC-5.03 *Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.B:

- C. In the preparation of Drawings and Specifications, Engineer or Engineer's Consultants relied upon the following reports of explorations and tests of subsurface conditions at the Site:
 - 1. Report dated _____, prepared by _____, entitled: "_____", consisting of ____ pages.
- D. Copies of these reports and drawings itemized in SC 5.03.C that are not included with the Bidding Documents may be examined at the Engineer's office during regular business hours. These reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Contractor may rely as identified and established above are incorporated therein by reference. Contractor is not entitled to rely upon other information and data utilized by Engineer and Engineer's Consultants in the preparation of Drawings and Specifications.

SC 5.03 If Item SC-5.03.C.1 above is blank, Delete Paragraphs 5.03.A, 5.03.B, and 5.03.C in their entirety and insert the following:

- A. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

SC-5.06 *Hazardous Environmental Conditions*

SC 5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. Not Used.

- SC-5.06** Delete Paragraph 5.06.I in its entirety.
- SC 5.06** Amend the first paragraph of 5.06.J of the General Conditions by changing “(including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs)” to “(including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs)”

ARTICLE 6 – BONDS AND INSURANCE

SC-6.01 Performance, Payment, and Other Bonds

- SC 6.01** Delete Paragraph 6.01.B in its entirety and insert the following:
- B.** All Bonds shall be in the form prescribed by the Contract Documents or other form approved by Owner. All else notwithstanding, the terms of all Bonds shall be substantially in the form prescribed by Chapter 255, Florida Statutes. All Bonds shall be executed by Contractor and a corporate bonding company licensed to transact such business in the State of Florida and named on the current list of “Surety Companies Acceptable on Federal Bonds” as published in the Treasury Department Circular Number 570. Contractor will cause the Bonds to be recorded with the Clerk of the Circuit Court in the county in which the Work is to be performed. Failure to execute bonds in the form prescribed may constitute non-responsiveness on the part of Contractor. The expense for all Bonds shall be Contractor’s responsibility.

SC-6.02 Insurance—General Provisions

- SC-6.02** Add the following paragraph immediately after Paragraph 6.02.B:
- 1.** Certificates of insurance shall be issued by a company with a Best's rating of at least B+ authorized to do business in the State of Florida. Owner must approve non-rated insurers. If used, Owner shall be shown as the Certificate Holder, Engineer as Additional Insured and provide for a 30-day cancellation notice.
- SC-6.02** Delete Paragraph 6.02 D. in its entirety.
- SC-6.02** Add the following paragraph immediately after Paragraph 6.02.J:
- K.** No work shall be commenced under this contract until the required Certificate(s) have been provided. Work shall not continue after expiration (or cancellation) until new Certificate(s) have been provided. Non-continuance of work after expiration (or cancellation) of Certificate(s) will not constitute a delay beyond Contractor’s control as defined in paragraph 4.05.
- L.** Contractor shall arrange for its insurers' policies to include, or be endorsed to include, a severability of interest/cross liability provision, so that Owner will be treated as if a separate policy were in existence, but without increasing the policy limits.
- M.** Contractor's deductibles/self-insured retentions shall be disclosed to Owner and may be disapproved by the latter. They shall be reduced or eliminated at the option of Owner. Contractor is responsible for the amount of any deductible or self-insured retention.

- N. Insurance required of Contractor or any other insurance of Contractor shall be considered primary and insurance or self-insurance of Owner shall be considered excess, as may be applicable to claims that arise out of this contract.
- O. The Contractor shall either (a) require each subcontractor to procure and maintain the same coverage as required of the Contractor, or (b) insure the activities of subcontractors in his own policy.

SC-6.05.A. Add the following to the list of items in Paragraph 6.05.A, as numbered items:

- 14. include for the benefit of Owner loss of profits and soft cost coverage including, without limitation, fixed expenses and debt service for a minimum of 12 months with a maximum deductible of 30 days, plus attorneys fees and engineering or other consultants' fees, if not otherwise covered;
- 15. include by express endorsement coverage of damage to Contractor's equipment.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.02 *Labor; Working Hours*

SC-7.02.B. Amend the first and second sentences of Paragraph 7.02.B to state "...all Work at the Site shall be performed during regular working hours, 7:00 AM through 5:00 PM. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday recognized by the Owner without prior written approval by the Owner. The Owner recognizes the following legal holidays:

New Year's Day (January 1)
Martin Luther King Jr. Day (3rd Monday in January)
President's Day (3rd Monday in February)
Good Friday
Memorial Day (Last Monday of May)
Juneteenth (June 19)
Independence Day (July 4)
Labor Day (1st Monday of September)
Veteran's Day (November 11)
Thanksgiving Day (4th Thursday of November)
Day After Thanksgiving (4th Friday of November)
Christmas Eve (December 24)
Christmas Day (December 25)
New Year's Eve (December 31)"

SC-7.02.C. Add the following new paragraph immediately after Paragraph 7.02.B:

Contractor shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work outside of regular working hours as defined in the Contract Documents. If Contractor is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

SC-7.07 Delete Paragraph 7.07 B. in its entirety.

SC-7.11 Record Documents

SC-7.11.A. Add the following new paragraph immediately after Paragraph 7.11.A:

Annotation of record documents shall be legible, precise, and complete as determined by Engineer. Record drawings shall also meet all additional requirements if any as specified in the Contract Documents including providing an electronic CAD version.

SC-7.12 Safety and Protection

SC-7.12.A. Add the following new paragraph immediately after Paragraph 7.12.A.3:

4. Contractor shall be responsible at all times for precautions to achieve the protection of all persons, including employees and property. Contractor shall make special effort to detect hazardous conditions and shall take prompt action where necessary to avoid accident, injury, or property damage. OSHA and all other applicable safety laws and ordinances shall be followed as well as American National Standards Institute Safety Standards. All accidents, injuries, claims, or potential claims shall be reported promptly to Owner.

SC-7.16 Shop Drawings, Samples, and Other Submittals

SC-7.16.E. Add the following new paragraph immediately after Paragraph 7.16.E.1:

2. Contractor shall reimburse Owner for the charges of Engineer and Engineer's Consultants for costs generated as a result of more than two submittals of any one Shop Drawing or Sample being required for evaluation due to rejection for noncompliance of the original submittal or for lack of information required by the Contract Documents. Owner's reimbursement for the charges shall be a deduction from Contractor's Partial Payment(s).

SC-7.18 Indemnification

SC-7.18 Delete in its entirety

ARTICLE 9 – OWNER'S RESPONSIBILITIES

SC-9.02 Replacement of Engineer

SC-9.02 Amend paragraph 9.02 of the General Conditions by striking out the following words:
“, provided the Contractor makes no reasonable objection.”

SC-9.11 Evidence of Financial Arrangements

SC-9.11 Delete in its entirety

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

SC-10.03 *Project Representative*

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

- B.** The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.
- 1.** General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
 - 2.** Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
 - 3.** Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.
 - 4.** Liaison:
 - a.** Serve as Engineer’s liaison with Contractor. Working principally through Contractor’s authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b.** Assist Engineer in serving as Owner’s liaison with Contractor when Contractor’s operations affect Owner’s on-Site operations.
 - c.** Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
 - 5.** Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
 - 6.** Shop Drawings and Samples:
 - a.** Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b.** Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c.** Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
 - 7.** Modifications: Consider and evaluate Contractor’s suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR’s recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.

8. Review of Work and Rejection of Defective Work:

- a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
- b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. Inspections, Tests, and System Start-ups:

- a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

10. Records:

- a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
- b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- c. Maintain records for use in preparing Project documentation.

11. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

12. **Payment Requests:** Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
13. **Certificates, Operation and Maintenance Manuals:** During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.
14. **Completion:**
 - a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
 - b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
 - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 12 – CLAIMS

SC-12.01 *Claims*

- SC 12.01.B** Amend the first sentence of paragraph 12.01.B of the General Conditions by changing “(but in no event later than 30 days)” to “(but in no event later than 90 days for the Owner and no later than 10 days for the Contractor)”.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-13.01 *Cost of the Work*

- SC 13.01.B.5.c** Add the following to the end of Paragraph 13.01.B.5.c:
- In no case shall rates exceed those published by the current edition of Data Quest Incorporated titled, Rental Rate Blue Book for Construction Equipment, and other procedures established by Florida Department of Transportation.
- SC 13.01.B.5.f** Amend the first sentence of paragraph 13.01.B.5.f by striking out the following words: “(except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05).”
- SC 13.01.B.5.i** Add the following new paragraphs immediately after paragraph 13.01.B.5.i:
- j. The cost of compliance with current local, state and federal safety regulations.

SC-13.03 *Unit Price Work*

- SC 13.03.E** Delete Paragraph 13.03.E in its entirety and insert the following in its place:
- E. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment by the Owner under the following conditions:
1. if the extended price of a particular item of Unit Price Work amounts to 25 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and
 2. if there is no corresponding adjustment with respect to any other item of Work; and
 3. if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price.
- SC 13.03.E** Add the following new paragraphs immediately after Paragraph 13.03.E:
- F. Owner reserves the right to delete any Unit Price Work with the change, if any, in the Contract Price or in the Contract Times determined in accordance with Article 11.

ARTICLE 14 –TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

SC-14.02 Tests, Inspections, and Approvals

SC 14.02.A Add the following to the end of Paragraph 14.02.A:

Contractor shall reimburse Owner for the charges of Engineer and Engineer's Consultants for all costs due to work not being ready for tests and/or inspections when the Contractor has notified Engineer that work is ready for tests and/or inspections. Contractor shall reimburse Owner for all failed tests and subsequent retests. Partial payments payable to Contractor shall be distributed, first to reimburse the Owner for such charges, with the balance distributed to the Contractor in accordance with the Contract Documents.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC-15.01 Progress Payments

SC 15.01.B.2 Delete Paragraph 15.01.B.2 in its entirety and insert the following in its place:

Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor certifying that Contractor has disbursed to all subcontractors and suppliers having an interest in the contract their pro rata shares of the payment out of previous progress payments received by Contractor for all work completed and materials furnished in the previous period, less a retainage withheld by Contractor pursuant to an agreement with a subcontractor. Contractor shall provide a waiver of lien for all stored materials with the second application for payment after submitting application for payment. If the waiver of lien is not provided, current application for payment will be reduced by the value of the stored materials until said time waiver of lien is received or stored materials become incorporated in the Work. Within 30 days of receipt for the final progress payment or any other payments received thereafter except the final payment, Contractor shall pay all subcontractors and suppliers having an interest in the contract their pro rata shares of the payment for all work completed and materials furnished.

SC 15.01.D.1 Change Paragraph 15.01.D.1 to read as follows:

After presentation of the Application for Payment to the Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of paragraph 15.01.C) become due and when due, will be paid by Owner to Contractor within thirty (30) days.

SC-15.03 Substantial Completion

SC 15.03.B Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

PART 4



MISCELLANEOUS
DOCUMENTS

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Contractor's Application for Payment No. _____

Application Period:		Application Date:
To Village of Palm Springs (Owner):	From (Contractor):	Via (Engineer):
Project:	Contractor's Project No.:	Engineer's Project No.:
Owner's Task Order No.:	ITB No.:	

Application For Payment

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
TOTALS	\$ 0.00	\$ 0.00
NET CHANGE BY CHANGE ORDERS	\$ 0.00	

1. ORIGINAL CONTRACT PRICE.....	\$	_____
2. Net change by Change Orders.....	\$	0.00
3. Current Contract Price (Line 1 ± 2).....	\$	0.00
4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates).....	\$	_____
5. RETAINAGE:		
a. X 5.00% Work Completed.....	\$	_____
b. X 5.00% Stored Material.....	\$	_____
c. Total Retainage (Line 5.a + Line 5.b).....	\$	0.00
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c).....	\$	0.00
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$	_____
8. AMOUNT DUE THIS APPLICATION.....	\$	0.00
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above).....	\$	_____

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By: _____	Date: _____
-----------	-------------

Payment of: \$ 0.00
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____
(Engineer) (Date)

Payment of: \$ 0.00
(Line 8 or other - attach explanation of the other amount)

is approved by: _____
(Owner) (Date)

Approved by: _____
Funding or Financing Entity (if applicable) (Date)

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Progress Estimate - Unit Price Work

Contractor's Application

[illegible]

Stored Material Summary

Contractor's Application

[illegible]



CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:	Village of Palm Springs	Owner's Task Order No.:	
Contractor:		Project Bid No. (ITB #):	2024B - 015
Engineer:	Holtz Consulting Engineers, Inc.	Engineer's Project No.:	112_2401
Project:	Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator		

This [preliminary] [final] Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]*

Amendments to Owner's responsibilities: ☐ None
☐ As follows

Amendments to Contractor's responsibilities: ☐ None
☐ As follows:

The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EXECUTED BY ENGINEER:		RECEIVED:	RECEIVED:
By: _____ (Authorized signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)	
Title: _____	Title: _____	Title: _____	
Date: _____	Date: _____	Date: _____	

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Work Change Directive No. _____

Date of Issuance: _____ Effective Date: _____
Owner: Village of Palm Springs Owner's Task Order No.: _____
Contractor: _____ Project Bid No. (ITB #): 2024B - 015
Engineer: Holtz Consulting Engineers, Inc. Engineer's Project No.: 112_2401
Project: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments: *[List documents supporting change]*

Purpose for Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to: *[check one or both of the following]*

- ☐ Non-agreement on pricing of proposed change.
☐ Necessity to proceed for schedule or other Project reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price \$ _____ [increase] [decrease]
Contract Time _____ days [increase] [decrease]

Basis of estimated change in Contract Price:

- ☐ Lump Sum ☐ Unit Price
☐ Cost of the Work ☐ Other

RECOMMENDED:	AUTHORIZED BY:	RECEIVED:
By: _____ Engineer (Authorized Signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

Approved by Funding Agency (if applicable)

By: _____ Date: _____
Title: _____

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Change Order No. _____

Date of Issuance:

Effective Date:

Owner: Village of Palm Springs

Owner's Task Order No.:

Contractor:

Project Bid No. (ITB #): 2024B - 015

Engineer: Holtz Consulting Engineers, Inc.

Engineer's Project No.: 112_2401

Project: Replacement of Surficial Aquifer Well No. 14 and
Installation of Standby Generator

NTP:

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments:

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: \$ _____	Original Contract Times: _ Days / _ Days Substantial Completion: _____ Ready for Final Payment: _____ days / dates
[Increase] [Decrease] from previously approved Change Orders No. __ to No. __: \$ _____	[Increase] [Decrease] from previously approved Change Orders No. __ to No. __: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ dates
[Increase] [Decrease] of this Change Order: \$ _____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ dates

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer (if required)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

Approved by Funding Agency (if applicable)

By: _____ Date: _____
Title: _____



The CONTRACTOR and the OWNER agree that this CHANGE ORDER represents the complete agreement of the parties with respect to these matters as of the date of this CHANGE ORDER. By approving this Change Order, the CONTRACTOR releases any and all claims that it may have against the OWNER under the subject contract including, but not limited to claims for equitable adjustments, which occurred or accrued prior to the effective date of this CHANGE ORDER except those claims made in writing to the OWNER prior to the effective date of this CHANGE ORDER. The effective date of this Change Order is the date it is approved by the OWNER.

This Change Order may be executed in counterparts and is not effective until approved by either the Village Manager or Village Council (as designated on the second page of this Change Order).

Contractor Initial

IN WITNESS WHEREOF, the OWNER/VILLAGE has approved this Change Order No. ____ to the
_____ Project.

VILLAGE OF PALM SPRINGS, FLORIDA

By: _____

ATTEST:

Kimberly Wynn, Village Clerk

Approved as to form and legal sufficiency:

Glen J. Torcivia, Village Attorney



Field Order No. _____

Date of Issuance:

Effective Date:

Owner: Village of Palm Springs

Owner's Task Order No.:

Contractor:

Project Bid No. (ITB #): 2024B - 015

Engineer: Holtz Consulting Engineers, Inc.

Engineer's Project No.: 112_2401

Project: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator

Contractor is hereby directed to promptly execute this Field Order, issued in accordance with General Conditions Paragraph 11.01, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification(s)

Drawing(s) / Detail(s)

Description:

Attachments:

ISSUED:

RECEIVED:

By: _____
Engineer (Authorized Signature)

By: _____
Contractor (Authorized Signature)

Title: _____

Title: _____

Date: _____

Date: _____

Copy to: Owner

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Allowance Release No. _____

Date of Issuance:	Effective Date:
Owner: Village of Palm Springs	Owner's Task Order No.:
Contractor:	Project Bid No. (ITB #): 2024B - 015
Engineer: Holtz Consulting Engineers, Inc.	Engineer's Project No.: 112_2401
Project: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator	

The approved Construction Allowance is modified as follows upon execution of this Allowance Release:

Description:

Attachments:

CHANGE IN APPROVED CONSTRUCTION ALLOWANCE

Original Construction Allowance:

\$ _____

[Increase] [Decrease] from previously approved Allowance Release No. ____ to No. ____:

\$ _____

Construction Allowance prior to this Allowance Release:

\$ _____

[Increase] [Decrease] of this Allowance Release:

\$ _____

Construction Allowance incorporating this Allowance Release:

\$ _____

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____	By: _____	By: _____
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

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226 Cypress Lane
Palm Springs, Fl. 33461
Tel: 561.584.8200
Fax: 561.304.4608
www.vpsfl.org

REQUEST FOR INFORMATION

No. _____

TITLE: _____ **DATE:** _____
PROJECT: _____ **REQUIRED:** _____
TO: _____ **TASK ORDER #:** _____

REQUEST:

Requested By: _____ **Date:** _____
CONTRACTOR

Signed By: _____

Print Name: _____

ANSWER:

Answered By: _____ **Date:** _____
ENGINEER

Signed By: _____

Print Name: _____

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PART 5



SPECIFICATIONS

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DIVISION 1

GENERAL REQUIREMENTS

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SECTION 01000

SUMMARY OF WORK

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. Furnish all labor, equipment and materials necessary to plug/abandon existing Surficial aquifer production well (Well No. 14) and construct proposed replacement production well (Well No. 14R) for the Village of Palm Springs (OWNER). The scope of work will include: drilling, setting of casings and/or well screen, grouting, testing, well logging, video logging, acidization (optional), pump testing, formation water disposal system (including temporary piping and pumps), well facility disinfection, fencing, clearing and restoration of well site, new pump and motor including column pipe and appurtenances, well head piping and appurtenances, flow meter, raw water main piping / tie-in, generator and below-grade LPG tank installation, Automatic Transfer Switch installation, electrical and controls, site work and restoration, as described herein and as shown on the drawings. The project also consists of furnishing all labor, equipment, and materials necessary for testing / pressure grouting of existing sanitary sewer piping including applicable site work and restoration, as described herein and as shown on the drawings.
- B. The CONTRACTOR shall be responsible for all labor, materials, transportation, tools, supplies, equipment, and appurtenances necessary to reconstruct, develop, and test the well as specified herein. In general, all methods and material used under this construction shall be in accordance with the latest revisions of the American Water Works Association Standard for Wells (AWWA A100-06) and the National Groundwater Association Standards as they apply to the particular needs or conditions encountered in the proposed work.
- C. Depths presented in these specifications are estimated; specific construction details, such as well casing setting depths, open hole or screened intervals for each well will be determined based on site specific lithologic conditions encountered during drilling and testing.
- D. The existing well construction details are as follows:

Well Name	No. 14
Date Installed	1992
Diameter (in)	20
Total Depth (ft)	288
Cased Depth (ft)	183
Screened Interval (ft)	183 - 288

- E. The estimated depths for the replaced well are as follows:

Well Name	No. 14R
Diameter (in)	16
Total Depth (ft)	200
Cased Depth (ft)	120
Production Interval (ft)	120 - 200

- F. The CONTRACTOR shall be responsible for all labor, materials, tools, transportation, supplies, equipment and appurtenances necessary to construct, start-up, and test the well, pump, wellhead, raw water piping, and associated electrical and instrumentation.
- G. The OWNER reserves the right to add to the work in accordance with the Contract Documents.

1.02 WORK BY OTHERS

- A. The CONTRACTOR will diligently perform the scope of work independently of all others who may perform concurrent tasks during execution of the scope of work.
- B. The OWNER reserves the right to add to the work in accordance with the Contract Documents.
- C. The ENGINEER or OWNER's representative reserves the right to, throughout the construction process, perform on-site inspections of the CONTRACTOR and construction process. Documentation of work shall include, but not be limited to, detailed documentation of daily work performed by the CONTRACTOR, and photographs and/or videos of critical phases of well construction, development, and testing.
- D. The CONTRACTOR shall comply and adhere to all security requirements including but not limited to background checks and issuance of security badges. Access to the well site and work areas shall be limited to the areas shown on the project drawings and as discussed in the pre-construction meeting(s).
- E. Perimeter chain-link privacy (screened) fencing must be secured at all times including but not limited to the installation of temporary chain-link construction fencing prior to the removal of existing perimeter and security fencing required for construction. CONTRACTOR must submit a plan outlining the installation and removal of fencing for approval by OWNER prior to mobilization.

1.03 WORK SEQUENCE

- A. Sequence of the work will be discussed in detail at the pre-construction conference and will be as described in **Section 03000 – Well Construction Sequence** of the Contract Documents. Existing Well No. 14 shall remain in service until the proposed replacement well is constructed and cleared for placement into service by the OWNER. The OWNER reserves the right to assign priority to certain areas to accommodate the OWNER's interests.

- B. CONTRACTOR must contact the Palm Beach County Health Department and submit applicable portions of the “Well Construction Permit Application”, and any others required for construction as filed by the OWNER and ENGINEER, prior to commencement of well drilling activities. On-site construction shall not begin prior to CONTRACTOR providing OWNER/ENGINEER with Well Construction Permit. The CONTRACTOR is responsible to complete the work in the time as set forth by the Contract Documents.
- C. The CONTRACTOR shall submit to the ENGINEER, plans to mitigate the construction noise and vibration impacts and comply with the noise and vibration criteria specified herein, including the method of construction and treatments if necessary.
- D. The CONTRACTOR shall plan and execute construction activities by methods to control vibration to prevent damage to surrounding foundations, structures, and buildings. Vibration control and compliance are the sole responsibility of the CONTRACTOR.
- E. Wells that do not pass bacteriological testing as outlined in **Section 04200 – Well Facility Disinfection and Water Quality Sampling** will not be eligible for substantial completion. A complete set of disinfection and sampling requirements is available in **Section 04200 – Well Facility Disinfection and Water Quality Sampling** and **Appendix D**.

END OF SECTION

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SECTION 01039

COORDINATION AND MEETINGS

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated, for the following:
 - 1. Coordination.
 - 2. Field Engineering.
 - 3. Preconstruction Conference.
 - 4. Progress Meetings.

1.02 COORDINATION

- A. Coordinate scheduling, submittals, and work to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items to be installed later.
- B. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.
- C. Coordinate any tie-ins to existing piping with the Village of Palm Springs (OWNER). Obtain written authorization prior to shutting down any water mains on services, reclaimed mains, force mains, or performing tie-ins.
- D. Procure approval from the OWNER prior to operating any existing valve.

1.03 FIELD ENGINEERING

- A. Employ a Land Surveyor registered in the State of Florida and acceptable to the ENGINEER and the Village to perform all field surveys.
- B. CONTRACTOR shall locate and protect survey control and reference points.
- C. Control datum for survey is Vertical Control NAVD 1988.
- D. Provide field engineering services. Utilize land surveyor to establish elevations, lines, and levels, utilizing recognized survey practices.
- E. Submit signed and sealed certification prepared by the Land Surveyor that the elevations and locations of the Work are in conformance with the Contract Documents.

1.04 PRECONSTRUCTION CONFERENCE

- A. ENGINEER will schedule a conference after Notice of Award.
- B. Attendance Required: OWNER, ENGINEER, and CONTRACTOR.
- C. Agenda:
 - 1. Designation of personnel representing the parties in Contract, and the ENGINEER.
 - 2. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract closeout procedures.
 - 3. Scheduling.

1.05 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work as required.
- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two (2) days to ENGINEER, OWNER, participants, and those affected by decisions made at the meeting.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, OWNER, ENGINEER, as appropriate to agenda topics for each meeting.
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of work progress.
 - 3. Field observations, problems, and decisions.
 - 3. Identification of problems, which impede planned progress.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

SECTION 01200

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The Unit prices stated in the Contract shall be considered payment in full for the completion of all work. Payment shall be made under each item only for work as it is not specifically included under other items.
- B. The CONTRACTOR shall furnish all labor, equipment, and materials necessary to replace one (1) existing Surficial aquifer production well, Well No. 14, for the Village of Palm Springs (OWNER) and for furnishing and installing emergency generator facilities for supplying power to proposed Well No. 14R and exist. Well No. 13.
- C. The CONTRACTOR shall furnish all labor, equipment, and materials necessary to perform testing / pressure grouting of existing sanitary sewer piping.

1.02 PERFORMANCE

- A. Section generally defines unless otherwise indicated, the following:
 - 1. Payment item descriptions.
 - 2. Payment application descriptions.
- B. The cost of temporary facilities, bonds, insurance, attending project meetings, administration, record drawings, policing, and other general duties shall be considered incidental to all items.
- C. The OWNER may direct the CONTRACTOR to install certain portions of the work in advance of other portions without extra payment to the CONTRACTOR.
- D. Measurement methods delineated in the individual Specification sections are intended to complement the criteria of this Section. In the event of conflict, the requirements of the individual Specification section will govern.
- E. The CONTRACTOR's attention is called to the fact that the quotations for the various items of Work are intended to establish a total price for completing the Work in its entirety. Should the CONTRACTOR feel that the cost of any item of Work has not been established by the Schedule of Values or Measure and Payment, CONTRACTOR shall include the cost for that Work in the other Bid Items so that CONTRACTOR's proposal for the project does reflect CONTRACTOR's total price for completing the Work in its entirety.

1.03 RELATED SECTIONS

- A. Section 00111 – Advertisement
- B. Section 00200 – Instructions to Bidders
- C. Section 00520 - Agreement
- D. Section 00700 - General Conditions

1.04 LUMP SUM ITEMS

- A. The lump sum price shall be full compensation for all labor, materials and equipment to satisfactorily complete the installation of the items as shown on the plans and indicated in the details for lump sum bid items.

1.05 UNIT PRICE ITEMS

- A. The ENGINEER or his representative shall determine the number of units of each work item installed.

1.06 SATISFACTORY COMPLETION

- A. Satisfactory completion shall include dewatering, if any, and repair or replacement of damaged landscaping, irrigation systems, pavement or other existing improvements.

1.07 PAYMENT ITEMS

- A. Unit Price Bid
 - 1. Payment shall constitute summation of measured quantities multiplied by the respective unit price for items constructed as specified herein and shown on the engineering drawings; including installation and removal of all temporary facilities, piping; and supply of all incidental materials, equipment and labor necessary to complete the contemplated Work whether specifically identified herein or not.
 - 2. Partial progress payments will be made at monthly intervals and will be based upon the value of the Work completed on the date that a partial payment application is submitted less deductions for retainage as defined elsewhere. Signed and Sealed Record Drawings shall be submitted and approved with each partial and final pay request.

1.08 PAYMENT APPLICATION DESCRIPTION

- A. Preparation of Applications:
 - 1. Present required information in type written form, or equivalent.
 - 2. Execute certification by signature of authorized officer.

3. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed.
4. List each authorized Change Order as an extension on the Application for Payment, listing Change Order number and dollar amount as for an original item of Work.

B. Submittal Procedures

1. Submit three copies of each Application for Payment.

Payment Period: Submit monthly as directed by the OWNER.

Submit signed and sealed record drawings covering work for which payment is being requested.

Submit revised progress schedule accurately reflecting the work completed and the schedule of future work items.

C. Substantiating Data

1. When OWNER requires substantiating information, submit data justifying dollar amounts in question.
2. Provide one copy of data with cover letter of each copy of application. Show Application number and date, and line item by number and description on each piece of data.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

3.01 GENERAL ITEMS

A. PAY ITEM NO. 1 – GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION

Payment of this item shall be on a lump sum basis. This pay item shall include the costs to comply with all elements of the General Conditions of the Contract, including but not limited to: compliance with the requirements of the General Conditions, bonds, insurance, record keeping, safety and permitting, and indemnification. Payment shall be made at the Contract Lump Sum Price as identified on the BID FORM upon completion of work identified in the general conditions. Total cost of this item shall not exceed 5% of the total bid cost. This pay item also includes complying with all elements of the General Conditions of the Contract, including but not limited to bonds, insurance, record keeping, project

management, safety and permitting, and indemnification related to additional Contract scope paid for using Contract Allowance line items.

B. PAY ITEM NO. 2 – MOBILIZATION/DEMobilIZATION

Payment of this item shall be on a lump sum basis. This pay item shall include the costs for mobilization/demobilization including work and operations in mobilizing and demobilizing for the work on the well site, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site, and for the establishment and removal of temporary offices, buildings, facilities, as required by these specifications, the special provisions, and State and local laws and regulations including pre-construction site video, sanitary facilities and any other pre- or post-construction expense necessary for starting or completing the work. Total cost of this item shall not exceed 5% of the total bid cost. No more than 65% of the amount set aside for this item may be claimed as mobilization.

3.02 WELL NO. 14 SURFICIAL AQUIFER PRODUCTION WELL CONSTRUCTION

A. PAY ITEM NO. 3 – PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES

Payment of this item shall be on a lump sum basis. The item shall be paid for at the Contract Lump Sum Price as accepted by OWNER and shall include removal of well pump, wellhead piping assemblies, and electrical service and controls, and assessment of pulled equipment and proper disposal as specified in contract documents.

B. PAY ITEM NO. 4 – PLUG AND ABANDON EXISTING WELL No. 14 AND WELLHEAD/SITework DEMOLITION

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials and labor necessary for satisfactory plugging/abandonment/demolition and disposal of the well, wellhead, and buried raw water main in accordance with applicable state/federal regulations and as specified in **Section 04300 – Well Abandonment**. This item includes the demolition/disposal of existing wellhead, well pump, valves, piping, concrete, fencing, underground piping, electrical wire and conduit, control panels, telemetry units, light poles, and all other items as indicated in the plans and specifications. This pay item includes cutting/capping of the existing raw water main tie-in as necessary including restraining the existing water main as necessary for cutting/capping.

C. PAY ITEM NO. 5 – NOMINAL 6-INCH DIAMETER PILOT HOLE TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON

Payment of this item shall be on a lump sum basis. The item shall be paid for at the Contract Lump Sum Price as accepted by OWNER and shall include, but not be limited to, all labor, equipment and material necessary to complete the work including proper disposal of drilling mud, geophysical logging,

plugging/abandonment, grout, and other materials necessary to drill a nominal 6-inch diameter pilot hole to 200-feet below land surface as described and specified in the Contract Documents and as accepted by the ENGINEER.

D. PAY ITEM NO. 6 – FURNISH, INSTALL, AND GROUT 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT

Payment of this item shall be on a unit price basis. The item includes furnishing all labor, equipment, materials, and incidentals necessary to install the 30-inch outside diameter (O.D.) pit casing furnished, installed, and grouted in place to the depth specified by the ENGINEER. The item shall be paid for at the Contract unit price per Linear Foot of actual measured casing installed and accepted. The item shall include but is not limited to all labor, equipment, centralizers, annular grout, and other materials necessary to properly install the casing as described in **Section 03200 – Well Casing** and as specified in the Contract Documents and accepted by the ENGINEER.

E. PAY ITEM NO. 7 – DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the actual length of drilled borehole as measured and approved by the ENGINEER and shall be measured vertically from the bottom of the 30-inch diameter surface casing to the bottom of the nominal 28-inch diameter drilled hole interval. The item shall include but is not limited to the furnishing of all material, labor, and equipment necessary to complete the work as described in **Section 03100 - Drilling**. No additional payment will be made for dredging or for re-drilling due to partial or total hole collapse.

F. PAY ITEM NO. 8 – COMPLETE GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS

Payment of this item shall be on a unit price basis. The item includes successfully completed geophysical logs as specified in the Contract Documents for the replacement well and shall include but not be limited to furnishing all materials, labor, and equipment necessary to complete the work in accordance with the Contract Documents and as accepted by the ENGINEER.

G. PAY ITEM NO. 9 – FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC WELL CASING

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the length of 24-inch PVC well casing furnished and installed and shall be the actual measured quantities installed and approved by the ENGINEER. The length shall be calculated from land surface. The item also includes all labor, equipment, centralizers, bushing and other materials necessary to properly install the casing as described in **Section 03200 – Well Casing** and as accepted by the ENGINEER.

H. **PAY ITEM NO. 10 – CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC WELL CASING IN PLACE**

Payment of this item shall be on a unit price and shall be paid for at the Contract Unit Price per 94-pound sack of cement furnished. The item includes but is not limited to materials, labor, equipment, delivery charges, additives, operations, setup and removal of equipment for grout emplacement as specified in the Contract Documents and as accepted by the ENGINEER. Cement for the 24-inch diameter PVC casing installation shall be paid for at the Contract Unit Price per sack of cement furnished, and accepted by the ENGINEER, as described in **Section 03400 – Annular Grout**, and as determined by delivery tickets and field observations.

I. **PAY ITEM NO. 11– DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD**

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the actual length of drilled borehole as measured from the bottom of the 24-inch diameter well casing to the bottom of the nominal 22-inch diameter drilled hole interval, and as approved by the ENGINEER. The item shall include but not be limited to the furnishing of all material, labor, equipment, and incidentals necessary to complete the work as described in **Section 03100 - Drilling**.

J. **PAY ITEM NO. 12 – FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN**

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the actual length of 16-inch diameter 316 stainless steel well screen and K-packer furnished/installed below-grade, as specified, and as accepted by the ENGINEER including, but not limited to, all labor, equipment, materials, centralizers, and incidentals necessary for proper installation as described in **Section 03600 – Well Screen**.

K. **PAY ITEM NO. 13 – FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING**

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the length of 16-inch Certa-Lok PVC well casing furnished and installed and shall be the actual measured quantities installed as specified and as approved by the ENGINEER. The length shall be calculated from land surface. The item also includes, but is not limited to, all labor, equipment, centralizers, bushings, and other materials necessary to properly install the casing as described in **Section 03200 – Well Casing** and accepted by the ENGINEER.

L. PAY ITEM NO. 14 – FURNISH AND INSTALL WELL GRAVEL PACK

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per cubic foot of gravel pack installed and accepted by the ENGINEER as determined by delivery tickets and field observations and as installed in accordance with the Contract Documents. This item shall include, but not be limited to, furnishing/installing all equipment, materials, labor, and incidentals as necessary to satisfactorily disinfect and install gravel pack from total depth to a depth specified by the ENGINEER. Gravel pack that does not meet contract specifications and ENGINEER approval will not be accepted in this line item.

M. PAY ITEM NO. 15 – PERFORM AIRLIFT WELL DEVELOPMENT

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per hour of airlift development performed and shall include the work required to perform airlift development, as approved by the ENGINEER and as described in **Section 03500 – Well Development**. The item shall include only hours of actual airlift development as approved by the ENGINEER. This item shall include, but not be limited to, furnishing/installing all material, labor, equipment, and incidentals/preparations necessary to complete the scope of work as specified in the Contract Documents.

N. PAY ITEM NO. 16 – OPTIONAL: WELL ACIDIZATION MOBILIZATION

Payment of this item shall be on a lump sum basis based upon the percentage of the work completed and approved by the OWNER. The ENGINEER shall direct the CONTRACTOR whether the work included in this item shall be performed. This optional pay item consists of preparatory work, finish work, mobilizing and demobilizing for beginning and ending work, including, but not limited to, those operations necessary for well acidization including but not limited to setup, providing acid pumping, and all labor, materials, equipment, and incidentals necessary to acidize the well as specified in the Contract Documents and as accepted by the ENGINEER.

O. PAY ITEM NO. 17 – OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per gallon of acid furnished/installed. The ENGINEER shall direct the CONTRACTOR whether the work included in this item shall be performed. This optional pay item consists of furnishing all necessary labor, equipment, materials, and incidentals necessary to furnish/place up to 1,800 gallons of 32% hydrochloric acid into the well as directed by the ENGINEER and removal/legal-disposal of pH-stabilized water post-acidization, and all labor, materials, equipment, and incidentals necessary to complete the acid treatment as specified in the Contract Documents and as accepted by the ENGINEER.

P. PAY ITEM NO. 18 – PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEAN OUT OF BOREHOLE

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per hour of jetting the borehole (including simultaneous airlift) and reverse air clean out of the borehole to total depth and shall include the work required to perform jetting and reverse air clean out of the hole to the satisfaction of the ENGINEER and as described in **Section 03500 – Well Development**. The item shall include only hours of actual jetting or reverse air clean out of the hole as approved by the ENGINEER including, but not be limited to, the furnishing of all material, labor, equipment, incidentals, and preparations necessary to complete jetting, development, and clean out of the hole in accordance with the Contract Documents.

Q. PAY ITEM NO. 19 – PERFORM PUMP DEVELOPMENT

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per hour of pump development and shall include the work required to perform pump development of the well, including installation and removal of temporary development pump and performance of pump development to the satisfaction of the ENGINEER and as described in **Section 03500 – Well Development**. The item shall include only hours of actual pumping as approved by the ENGINEER including, but not be limited to, the furnishing of all material, labor, equipment, fuel, incidentals, and preparations necessary to complete the scope of work as specified in the Contract Documents and accepted by the ENGINEER.

R. PAY ITEM NO. 20 – CONDUCT STEP-RATE PUMP TEST

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per hour of actual step-rate pump testing (while pumping) and shall include, but not be limited to, the furnishing of all material, labor, fuel, incidentals, and equipment necessary to complete the testing as specified in **Section 04000 – Pumping Tests** as accepted by the ENGINEER. Only hours of actual step-rate pumping shall be considered for payment of this item as approved by the ENGINEER.

S. PAY ITEM NO. 21 – COMPLETE WELL VIDEO LOGGING

Payment of this item shall be on a unit price basis per each complete well video log performed and accepted by the ENGINEER. The item includes performance of acceptable video logs, as specified in **Section 03300 – Geophysical and Video Logging**. Video logging (in both static and dynamic conditions) shall include, but not be limited to, equipment required for the flushing of the well with potable water to provide a clear color video image to the total depth of the well and borehole, and furnishing of all material, labor, incidentals, and equipment necessary to complete the work as specified in the Contract Documents. Only video logs accepted by the ENGINEER shall be paid for under this pay item.

T. PAY ITEM NO. 22 – WELL DISINFECTION AND SAMPLING

Payment of this item shall be on a lump sum basis. The item includes but shall not be limited to, all equipment, materials and labor to satisfactorily disinfect the well and raw water main, and perform bacteriological sampling and testing, as required by the Contract Documents and state/local laws and regulations as related to this pay item. The CONTRACTOR shall be responsible for costs associated with testing, re-chlorination, re-sampling, and re-testing as needed to obtain acceptable results from CONTRACTOR approved laboratory and OWNER laboratory as described in the Contract Documents.

U. PAY ITEM NO. 23 – WATER QUALITY AND BACTERIOLOGICAL SAMPLING

Payment of this item shall be on a lump sum basis. The item includes but shall not be limited to, all equipment, materials, and labor to satisfactorily perform water quality and bacteriological sampling/testing of the well and proposed raw water main including constructing easily accessible sampling points as required by state and local laws and regulations as related to this pay item. The CONTRACTOR shall be responsible for costs associated with re-sampling / re-testing as needed to satisfactorily obtain passing and acceptable water quality and bacteriological / disinfection test results as described in **Section 04200 – Well Facility Disinfection and Water Quality Sampling**. This item includes water quality sampling for laboratory analysis of primary and secondary drinking water standards, bacteriological sampling as required by the FDEP permit, and for any additional parameters included in the contract documents.

V. PAY ITEM NO. 24 – FORMATION WATER DISPOSAL SYSTEM

Payment of this item shall be on a lump sum basis. The item includes, but shall not be limited to, furnishing and installing all materials, labor, time, monitoring, operation and maintenance, and equipment necessary to install required tie-ins, temporary above grade HDPE formation water disposal piping (or approved alternate) from the well to CONTRACTOR's settling tanks and to the designated outfall locations as shown on the Contract Plans, sampling and compliance with FDEP Permit for Generic Discharge (62-621.300(2) FAC), CONTRACTOR furnished LWDD permits, implementation of necessary best management practices, and complete restoration of all areas used for formation water discharge as described in **Section 05000 – Formation Water Disposal System**, Contract Documents, and as accepted by the ENGINEER. This pay item also includes removal and legal disposal of temporary piping, maintenance of disposal/settling system, and all temporary pumps/fittings/piping.

W. PAY ITEM NO. 25 - FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials, and labor necessary to furnish and install a new wellhead, below grade raw water main piping / fittings, valves, flow meter, above grade piping and

appurtenances, pipe supports, coating of the wellhead, dewatering as necessary, and incidentals necessary to furnish/install as shown on the attached drawings and specifications. This item shall include the wellhead assembly, valves, meters, above grade piping / fittings / valves, and appurtenances, check valve, below grade raw water main piping, tie-in, disinfection/flushing of raw water main, start-up, testing, OWNER training, and any other necessary items to provide a complete and operating system.

Disinfection of the existing raw water main shall include, but not be limited to furnishing/installing all necessary labor, equipment, materials, and tooling necessary to disinfect and flush existing raw water main facilities removed from service during performance/completion of raw water main tie-in including management/legal-disposal of flushing water, and all other work necessary to place existing raw water main facilities back into normal operation to the sole satisfaction of the OWNER.

X. PAY ITEM NO. 26 - FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING

Payment of this item shall be on a lump sum basis. The item includes furnishing and installation of the submersible well pump, motor, column pipe, column pipe-pump adaptor, foot-valve, safety chains, disinfection, and all required appurtenances including but not limited to all equipment, labor, and materials required to connect all electrical services and controls and complete the work as specified in the Contract Documents and accepted by the ENGINEER.

Y. PAY ITEM NO. 27 – SITE WORK INCLUDING PERIMETER FENCING AND SITE RESTORATION

Payment of this item shall be on a lump sum basis. The item includes preparing the site for drilling, furnishing and installing temporary perimeter site security / privacy fencing, providing intended grades including adding/grading/compacting clean fill as necessary, removal/trimming of landscaping as necessary, replacement of existing vegetation as necessary, relocation of utilities as noted on the Construction Plans and as approved by the OWNER/ENGINEER, ground cover / sodding, furnishing and installing the concrete well pad, generator concrete slab, bollards, and permanent perimeter fencing and access gates as shown on the site plan, and final site restoration to existing or better conditions, to the satisfaction of the OWNER and as accepted by the ENGINEER.

Z. PAY ITEM NO. 28 – FURNISH AND INSTALL LINE STOP

The CONTRACTOR's bid unit price per each (EA) shall include all labor, materials, equipment, tools, and incidentals necessary to furnish and install the line stop, including restraining the existing water main as directed on the contract plans, concrete pad/jacket, excavation for the trench, restraining of existing utilities as required in the Contract Plans, disposal of all excess materials, containment and legal disposal of spilled fluids, bracing, sheeting, dewatering, backfilling and compaction of trenches, density testing, maintaining uninterrupted services of existing utilities, providing access to driveways and roadways at all times, excavation as necessary for

exploration and installation, pipe material specific requirements including all necessary materials, equipment, labor, and/or pre-evaluation work required to confirm size/material/OD, cleaning the site of the work location, protection of existing utilities, structures, trees, shrubs, irrigation systems, and lawns, restoration of affected areas, and all other materials for a complete installation of the line stop as shown on the Drawings and as specified herein.

AA. PAY ITEM NO. 29 – FURNISH AND INSTALL TWO (2) 1000-GALLON LP UNDERGROUND STORAGE TANKS.

Payment for this item shall be on a lump sum basis. The item shall include furnishing and installation of the two (2) 1000-gallon LP underground storage tanks, connections between tanks and generators, underground gas piping, risers, regulators, below-grade anchoring system (as designed by tank supplier), and all other required appurtenances including but not limited to all equipment, labor, and materials necessary to complete the work as specified in the Contract Documents and for acceptance by the ENGINEER and OWNER. This item includes the initial LPG filling for the tanks as well as topping off the tanks as necessary post-testing / start-up. This item includes all excavation, backfill, bedding, dewatering, and compaction as necessary for tank installation. This item includes all materials, equipment, labor, tooling, fueling, and incidentals as in **Section 13200 – Underground LP Storage and Distribution** of the Technical Specifications and as shown in the Contract Plans.

BB. PAY ITEM NO. 30 – FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials, and labor necessary to furnish and install the proposed generator and automatic transfer switches (ATS) (including at Well Nos. 14R and Well 13) including the generator unit, ATS units, and concrete slab/anchoring as necessary and as shown on the attached drawings and specifications. The item includes all equipment, materials, and labor necessary to furnish and install the specified permanent emergency generator including complete installation in accordance with the manufacturer's instructions and the plans/specifications. This line item includes all necessary start-up services for the generator and ATS specific equipment.

Pay Item No. 31 includes furnishing/installing labor, equipment, materials, and incidentals necessary for installing all power feeds and services, power and control panels, instrumentation/controls, disconnects, wire, conduit, grounding, lightning protection, SCADA, telemetry, and appurtenances shall be furnished/installed as described in the plans and specifications.

CC. PAY ITEM NO. 31 – ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIPMENT)

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials, and labor necessary to furnish and install electrical service to the surficial well, including all electrical facilities, instrumentation, controls, and telemetry, as necessary and as shown on the attached drawings and specifications. This item shall include all power feeds and services, power and control panels, instrumentation/controls, disconnects, wire, conduit, grounding, lightning protection, SCADA, telemetry, and appurtenances as described in the plans and specifications. This line item includes all necessary start-up services for electrical, instrumentation, and controls facilities.

This item also includes all necessary materials, equipment, labor, tooling, and incidentals required to furnish/install electrical facilities between the Well No. 14R site / generator and the existing Well No. 13 site including furnishing and installing all necessary conduit and open-cut/trenchless installation thereof, conductors, instrumentation/controls, modifications to and tie-ins to existing control panels/facilities at Well No. 13, concrete cutting/patching, necessary excavation, backfill, dewatering, sheeting/shoring, backfill, compaction, asphalt pavement / concrete sidewalk / sod restoration, site restoration required to restore the site to pre-existing conditions or better, and all other electrical work not referenced in Pay Item No. 30 and as shown on the attached drawings and specifications.

DD. PAY ITEM NO. 32 – OWNER’S ALLOWANCE

Payment of this item shall be on a Cost Incurred (CI) basis based upon invoices provided by the CONTRACTOR. This pay item shall include payments to FPL for fees required by FPL related to electrical service to Well No. 14 as well as additional project work required due to unforeseen conditions and as approved in writing by the OWNER/ENGINEER. Payment on this item shall only be with prior written approval of the OWNER/ENGINEER. CONTRACTOR shall provide an original invoice from FPL to OWNER for approval, as evidence of the total amount to be paid for electrical service connection. Costs for any additional work shall be reviewed / approved by OWNER/ENGINEER prior to any work being performed. No payments shall be made for work performed prior to / without written approval/agreement from OWNER/ENGINEER. Any remaining money left in this allowance that is not used and approved by the OWNER shall not be paid to the CONTRACTOR and shall be returned to the OWNER in a final reconciliation change order.

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated, for the following:
 - 1. Submittal Procedures.
 - 2. Construction Progress Schedules.
 - 3. Temporary Fencing and Screening Plan.
 - 4. Dewatering Plans.
 - 5. Well Testing Plans.
 - 6. Temporary Trenching, Sheet piling, and Shoring Plan.
 - 7. Proposed Products List.
 - 8. Shop Drawings.
 - 9. Product Data.
 - 10. Manufacturers' Instructions.
 - 11. Manufacturers' Certificates.
 - 12. Maintenance of Traffic.

1.02 RELATED SECTIONS

- A. **Section 01400 - Quality Control:** Manufacturers' field services and reports.
- B. **Section 01780 - Contract Closeout:** Contract warranty and manufacturer's certificates, closeout submittals.

1.03 SUBMITTAL PROCEDURES

- A. Transmit each submittal with ENGINEER accepted form. All submittals shall be submitted electronically. Responses to submittals will also be performed electronically.
- B. Sequentially number the transmittal forms. Resubmittals to have original number with an alphabetic suffix.

- C. Identify Project, CONTRACTOR, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate.
- D. Apply CONTRACTOR's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite the Project, and deliver to ENGINEER at their business address. Coordinate submission of related items.
- F. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- G. Provide space for CONTRACTOR and ENGINEER review stamps on each submittal.
- H. Only complete submittals will be reviewed. Partial or incomplete submittals for a product will be returned to the CONTRACTOR without review.
- I. Revise and resubmit submittals as required, identify all changes made since previous submittal.
- J. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.
- K. Provide an updated Submittal Log at the end of each week that tracks the date the submittal was transmitted, the date the submittal was returned, and the status of each submittal.
- L. All approved submittals to be saved electronically, in PDF format, and provided on a CD along with As-Built Plans and O&M Manuals at the end of the project.

1.04 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule as required in the “General Conditions”.
- B. Revise and resubmit as required in the “General Conditions”.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Submit a horizontal bar chart with separate line for each major section of Work or operation, identifying first work day of each week.
- E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of Work at submission of each Application for Payment.

- G. At the end of each week, CONTRACTOR shall submit a written two (2) week look ahead describing the construction activities that will take place to allow for coordination with ENGINEER, OWNER, and other parties.

1.05 TEMPORARY FENCING AND SCREENING PLAN

- A. Submit temporary fencing and screening plan to ENGINEER for review.

1.06 DEWATERING PLANS

- A. Submit dewatering plans to ENGINEER for review.
- B. After ENGINEER's review of dewatering plans, CONTRACTOR shall submit plans to proper governing authority and receive permits for dewatering prior to construction.
- C. CONTRACTOR is responsible for paying any dewatering permit fees.

1.07 WELL TESTING PLANS

- A. CONTRACTOR shall submit plans to ENGINEER for review.

1.08 TEMPORARY TRENCHING, SHEETING, AND SHORING PLAN

- A. CONTRACTOR shall submit plans to proper governing authority for approval.

1.09 PROPOSED PRODUCTS LIST AND INFORMATION

- A. Submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number or each product. These products should include as a minimum the following:
 - 1. Well Screen.
 - 2. Well Casing.
 - 3. Well Pump and Motor.
 - 4. Well Head.
 - 5. Gravel Packing.
 - 6. Ductile Iron Pipe.
 - 7. Valves.
 - 8. Electrical.
 - 9. Instrumentation.
 - 10. Others as required (Additional submittal requirements are provided in the individual specification sections).

- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- C. Submit the following information:
 - 1. Well Construction Permit.
 - 2. A list of materials and equipment for the disposal of formation water.
 - 3. A list of drilling equipment, settling tanks, and pumping equipment to be used for the rehabilitation of each well.
 - 4. Documentation of welder's certification.
 - 5. Flow meter calibration certificates.

1.10 SHOP DRAWINGS

- A. After review, distribute in accordance with Article on Procedures above and for Record Documents described in **Section 01780 - Contract Closeout**.

1.11 PRODUCT DATA

- A. Submit the number of copies which the CONTRACTOR requires, plus four (4) copies, which will be retained by the ENGINEER.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.
- C. After review, distribute in accordance with Article on Procedures above and provide copies for Record Documents described in **Section 01780 - Contract Closeout**.

1.12 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.
- B. Identify conflicts between manufacturers' instructions and Contract Documents.

1.13 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification Sections, submit manufacturers' certificate to ENGINEER for review, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to ENGINEER.

1.14 MAINTENANCE OF TRAFFIC

- A. Prepare and submit a Work Zone Traffic Control Plan to the appropriate officials in all municipalities and jurisdictions where the work will impact the flow of traffic. Obtain written approval of that plan from all municipalities and jurisdictions, then provide copies of the plan and all approvals to the OWNER and ENGINEER prior to the start of construction. Also, submit plan to maintain/control pedestrian traffic in the work area.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

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SECTION 01360

PRE-CONSTRUCTION AUDIO-VIDEO DOCUMENTATION

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise rated, for the following:
 - 1. Audio-Video Documentation.
 - 2. Equipment.
 - 3. Submittals.
 - 4. Technique.
 - 5. Quality Assurance.

1.02 QUALITY ASSURANCE

- A. Documentation shall be performed by a responsible commercial firm known to be skilled and regularly engaged in the preparation of pre-construction color audio-video documentation. **Any Preconstruction video produced by the CONTRACTOR will be immediately rejected.** All preconstruction videos are to be completed by a firm with extensive amount of previous experience in producing preconstruction documentation.
- B. Completed documentation shall reproduce bright, sharp pictures with accurate colors and shall be free from distortion, tearing, rolling, or any other significant picture imperfection. The audio portion of the recording shall reproduce the commentary of the camera operator with proper volume, clarity, and be free of distortion.
- C. Construction shall not proceed until the OWNER and ENGINEER have reviewed the documentation and notified the CONTRACTOR of its acceptability.

1.03 MEASUREMENT AND PAYMENT

- A. No separate payment item is provided for this work. The cost of performing this work shall be incorporated into the bid items or lump sum amount identified on the bid form.

PART 2 - PRODUCTS

2.01 RECORDING EQUIPMENT

- A. Utilize color video camera having:
 - 1. Horizontal Resolution of 350 lines at center.
 - 2. 8:1 Zoom, minimum.
- B. Utilize digital format recorder having:
 - 1. Minimum horizontal resolution of 540 lines, 60 fields.

2.02 RECORDING MEDIA

- A. Utilize new, Digital Video Disc (DVD) having:
 - 1. DVD shall be DVD-R. DVD-RAM shall not be accepted.
 - 2. 4¾ inches diameter discs.
 - 2. High resolution.
 - 3. 4.7 gigabyte storage per layer with two layers (minimum).

PART 3 - EXECUTION

3.01 COVERAGE

- A. Record coverage of all surface features located in the construction's zone of influence (including the proposed storage area(s)) including, but not limited to:
 - 1. Roadways, driveways, sidewalks.
 - 2. Treatment facilities, surrounding structures, sanitary facilities.
 - 3. Drainage structures, abovegrade utilities, drainage swales, canals.
 - 4. Landscaping, trees, shrubbery, fences, irrigation heads, meters.
- B. Record the individual features of each item with particular attention being focused upon the existence of any faults, fractures, or defects.
- C. Control pan rate, rate of travel, camera height and zoom rate to maintain a steady clear view at all times.
- D. Limit recorded coverage to one side of any street at any one time.
- E. Create a single, continuous, unedited recording that begins and ends within each portion of a particular construction area. The recording shall proceed in the direction of ascending baseline stationing.

3.02 AUDIO CONTENT

- A. Simultaneously record audio content during videotaping.
- B. Audio recording shall assist in viewer orientation and in any needed identification, clarification, or description of features being recorded.
- C. Audio recording will only consist of camera operator commentary.

3.03 INDEXING

- A. Permanently label each tape with a sequential tape number and the project name.
- B. Index each DVD with a digital record of the time and date of the recording that is continuously displayed as the DVD is played.
- C. Prepare a written log which describes the contents of each DVD including:
 - 1. Structure/location names.
 - 2. Coverage begin/end, station and location.
 - 3. Recording date.

3.04 CONDITIONS

- A. Record coverage during dry, clear weather and during daylight hours only.
- B. Record coverage when the area to be covered is free of debris or obstructions.
- C. Record coverage no more than 15 days prior to the start of construction.

END OF SECTION

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SECTION 01400

QUALITY CONTROL

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated, for the following:
 - 1. Quality assurance and control of installation.
 - 2. References.
 - 3. Inspection and testing laboratory services.

1.02 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from ENGINEER before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.
- G. Provide devices or utilize methods necessary for compliance with the "Trench Safety Act".

1.03 REFERENCES

- A. Conform to reference standard as identified in each individual technical specification section.
- B. Should specified reference standards conflict with Contract Documents, request clarification from ENGINEER before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by any reference standard or document.

1.04 INSPECTION AND TESTING LABORATORY SERVICES

- A. CONTRACTOR will appoint, employ, and pay for services of an independent firm to perform inspection and testing.
- B. The independent firm will perform inspections, tests, and other services specified in individual specification Sections and as required by the ENGINEER.
- C. Reports will be submitted by the independent firm to the ENGINEER, in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- D. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.
 - 1. Notify ENGINEER and independent firm 24 hours prior to expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional samples and tests required for CONTRACTOR's use.
- E. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the ENGINEER. The cost for retesting shall be the CONTRACTOR's responsibility.
- F. Testing to be provided by the CONTRACTOR shall include, at a minimum:
 - 1. Testing of the surficial aquifer production well, per **Division 3 - Well Construction and Concrete Work** and **Division 4 - Well Testing** of these Specifications.
 - 2. Density testing.
 - 3. Concrete testing.
 - 4. Testing of the raw water main and wellhead.
- G. The CONTRACTOR shall provide a calibrated seismograph at all times during well drilling activities to monitor vibration at the site. The seismograph shall be recently calibrated and with a suitable indicator range. The CONTRACTOR shall be responsible for any damage due to excessive vibration. Off-site vibrations shall be limited to 0.5 inches per second (Peak Particle Velocity, PPV). The CONTRACTOR shall complete a vibration attenuation study (vibration levels versus distance) prior to construction using the proposed construction equipment at the highest impact energy possible.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

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SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1- GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated, for the following:
 - 1. Temporary Utilities: Electricity, water, and sanitary facilities.
 - 2. Temporary Controls: Barriers, enclosures and fencing and screening, protection of the Work.
 - 3. Construction Facilities: Parking, progress cleaning, and project signage.

1.02 RELATED SECTIONS

- A. **Section 01780 – Closeout Submittals:** Final cleaning.

1.03 TEMPORARY ELECTRICITY

- A. CONTRACTOR will provide temporary 110 VAC power, if existing at well locations, and CONTRACTOR may use at no cost.
- B. CONTRACTOR will provide portable power supply as required.
- C. CONTRACTOR will provide power outlets for construction operations, with branch wiring and distribution boxes located as needed. Provide flexible power cords as required.

1.04 TEMPORARY WATER SERVICE

- A. OWNER shall provide temporary raw water service at no charge. CONTRACTOR shall be responsible for all hauling or conveyance of water to the site. CONTRACTOR may use raw water supply following OWNER authorization for activities related to well drilling development. Non-potable raw water may be obtained from the existing raw water main located at the well sites.

1.05 TEMPORARY SANITARY FACILITIES

- A. CONTRACTOR shall provide and maintain required facilities.

1.06 BARRIERS AND TRAFFIC CONTROL

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage due to construction operations and demolition.
- B. Provide protection for natural vegetation designated to remain. Replace protected vegetation, if damaged.
- C. Protect all landscaping and decorative vegetation. Restore damaged landscaping and vegetation to its original condition.
- D. Protect non-owned vehicular traffic, stored materials, site and structures from damage.
- E. Provide signs, signals, cones, barricades and trained flagmen to direct traffic in and around the construction site in accordance with Florida Department of Transportation Work Zone Traffic Control Standards.
 - 1. Prepare a WORK ZONE TRAFFIC CONTROL PLAN and submit that plan to the appropriate officials in all municipalities and jurisdictions where the Work will impact the flow of traffic.
 - 2. Obtain written approval of that plan from all municipalities and jurisdictions, and then provide copies of the plan and all approvals to the OWNER and ENGINEER prior to the start of construction. All approvals must be obtained prior to construction.
 - 3. Keep specified areas open and accessible at all times. Roads must be kept open at all times. Flow bypass ramps or buried hoses are required to maintain traffic access.

1.07 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for existing and installed Products. Control activity in immediate work area to minimize damage.
- C. Provide protective coverings as needed.
- D. Protect finished floors, stairs, roadways, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

1.08 SECURITY/TEMPORARY FENCING AND SCREENING

- A. Provide security and facilities to protect Work from unauthorized entry, vandalism, or theft.
- B. Provide temporary fencing and screening to protect Work from unauthorized entry, vandalism, or theft.

1.09 ACCESS ROADS

- A. Construct and maintain temporary roads accessing public thoroughfares to serve construction area. Access routes shall be restored to preexisting conditions or better upon conclusion of the project.
- B. Extend and relocate as Work progress requires. Provide detours necessary for unimpeded traffic flow. Coordinate interruptions in normal public vehicular traffic flow with those governmental agencies having authority over each roadway.

1.10 PARKING

- A. Provide temporary parking areas to accommodate construction personnel.
- B. Temporary parking areas must not interfere with normal traffic flow or designated parking for others.
- C. Temporary parking areas must be approved by the ENGINEER and OWNER.

1.11 PROGRESS CLEANING

- A. Maintain all construction areas free of waste materials, debris, and rubbish. Maintain all sites in a clean and orderly condition.
- B. Broom and vacuum clean areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- C. Remove waste materials, debris, and rubbish from site daily and dispose of at approved location.
- D. Always keep roadways, sidewalks and bicycle paths clear of construction debris and trash.
- E. Provide positive methods and apply dust control materials to minimize raising dust from construction operations, and provide positive means to prevent airborne dust from dispersing into the atmosphere. CONTRACTOR shall immediately mitigate dust upon complaint.

1.12 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary above grade or buried utilities, equipment, facilities, materials, prior to Final Application for Payment inspection.
- B. Remove underground installations to a minimum depth of three (3) feet.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.13 ADJACENT WORK

- A. Other contractors will be completing work adjacent to the project sites as specified in this contract. Contractor must coordinate with additional contractors working in the area.

1.14 WELLFIELD PROTECTION

- A. All construction activities, including the storage of diesel fuel, must comply with the Palm Beach County Wellfield Protection Act. Contractor shall comply with Appendix 3 Best Management Practices for the Construction Industry, as referenced in Section 14, Wellfield Protection Ordinance, of the Palm Beach County Unified Land Development Code

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated, for the following:
 - 1. Products.
 - 2. Transportation and handling.
 - 3. Storage and protection.
 - 4. Product options.
 - 5. Substitutions.

1.02 RELATED SECTIONS

- A. Instructions to Bidders: Product options and substitution procedures.
- B. **Section 01400 - Quality Control:** Product quality monitoring.

1.03 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.

1.04 TRANSPORTATION AND HANDLING

- A. Transport and handle Products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that Products comply with requirements, quantities are correct, and Products are undamaged.
- C. Provide equipment and personnel to handle Products by methods which prevent soiling, disfigurement, or damage.

1.05 STORAGE AND PROTECTION

- A. Store and protect Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive Products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated Products, place on secure supports, above ground.
- C. Provide off-site storage and protection when site does not permit on-site storage or protection. On-site storage of products must be approved by the OWNER and ENGINEER prior to delivery.
- D. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- F. Arrange storage of Products to permit access for inspection. Periodically inspect to assure Products are undamaged and are maintained under specified conditions.

1.06 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

1.07 SUBSTITUTIONS

- A. Instructions to Bidders specify time restrictions for submitting requests for Substitutions during the bidding period to requirements specified in this Section.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the CONTRACTOR.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the Bidder:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Will provide the same warranty for the Substitution as for the specified Product.

3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to OWNER.
 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 5. Will reimburse OWNER for review or redesign services associated with re-approval by the ENGINEER or governing authorities.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
1. Submit three (3) copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
 2. Submit shop drawings, Product data, and certified test results attesting to the proposed Product equivalence.
- G. The ENGINEER will notify CONTRACTOR, in writing, of decision to accept or reject request.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

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SECTION 01720

RECORD DOCUMENTS

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated, for the following:
 - 1. On-site maintenance of Record Documents.
 - 2. Required record information.

1.02 MAINTENANCE

- A. Maintain on site, one (1) set of the following Record Documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Shop Drawings, product data, and samples.
 - 6. Palm Beach County Health Department Permit for wellhead and raw water main, well construction and well abandonment.
 - 7. Building Permits.
 - 8. Other Permits as necessary.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. In the interest of timely detection of non-conforming Work, all Record Drawing information for the partially completed work must be furnished to the ENGINEER prior to submitting for periodic progress payments on the partially completed Work.
- E. Under no circumstances will pavement restoration Work be allowed to start until the ENGINEER has reviewed the Record Drawing information for Work constructed within the area that pavement will be restored.

- F. All Record Drawing information must be obtained by a Professional Land Surveyor, who is licensed in the State of Florida. Information must be signed and sealed.
- G. Record Documents must be available to ENGINEER for examination at any time during the progress of the Work.
- H. Submit completed Record Documents upon completion of the Work, at each partial pay request, and prior to application for final payment.
- I. The Surveyor to be utilized shall have successfully completed three (3) Record Drawing projects within the last two (2) years within the Village of Palm Springs Service area (i.e. has completed three sets of Record Drawings that have been reviewed by Village Staff and is familiar with the requirements of the Village of Palm Springs.)

1.03 REQUIRED RECORD DRAWING INFORMATION

- A. General
 - 1. All drawings included as part of the Contract Documents shall be submitted as part of the record drawing submittal.
 - 2. Label drawings "Record Drawings" with date.
 - 3. Complete title block with current file name.
 - 4. Location sketch.
 - 5. Design information shall be crossed out and the record drawing information shall be included in bold.
 - 6. Two (2) signed and sealed sets of Record Drawings.
 - 7. One (1) signed and sealed set of Record Drawings on Mylar.
 - 8. Two (2) digital copies of Record Drawings in AutoCAD 2000 format or later and one (1) copy, in PDF format, on CD.
 - 9. Additional copies as required for permitting closeout as requested by the ENGINEER.
 - 10. Design information which is no longer applicable to the installed components and/or configuration shall be crossed-out.
 - 11. Design elevations shall be crossed out and the installed elevations shall be recorded where applicable.

B. Pipe

1. As-built entire facility from existing tie-in to existing tie-in as determined by the OWNER. Extensions of an imaginary line will not be acceptable as reference points.
2. Stationing or Northing/Easting of each valve, fitting, air release valve, service line, well head, etc. and radial dimensions from a nearby permanent object where possible.
3. Type of materials installed - pipe and appurtenances. Indicate all locations of change of material including joint type (M.J., slip, restrained).
4. Valve type (plug, butterfly, gate, air release, etc.) and size.
5. As-built elevations at tie-in locations and any major changes in direction and/or elevation. Elevations shown at these intervals and changes must show top of pipe elevation and finished grade elevation at that location.

C. Well Head

1. Include Northing/Easting and latitude/longitude of the well head, centerline elevation of pipes, corners of the concrete slab, and slab elevation.

D. Electrical

1. Include location of electrical and instrument panels, rocks, pull boxes, transformers, equipment panels, grounding rods and test wells, and conduit. Conduit information shall include depth of cover and separation between other utilities where they cross each other.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.01 SURVEYOR RESPONSIBILITIES

- A. Signed and sealed prints are to be submitted for each pay requisition and appropriate stages of construction as designated by the ENGINEER.
- B. Mark information on the Drawing in a manner that indicates which elevations and dimensions have been checked. This is to be done by crossing through the design elevation or dimension and placing the Record information next to it. If an elevation or dimension has not changed, the same procedure should be followed

to confirm that it has been checked. Add new information in a manner to indicate that it is Record information and not design information.

- C. Each Record Drawing sheet must include the surveyor's name, company, address, and registration number.
- D. Prior to the conclusion of the Project, CONTRACTOR shall submit the required number of signed and sealed copies of the Record Drawings to the ENGINEER for the purpose of closing all of the outstanding permits.
- E. At the conclusion of the Project, submit two final sets of signed and sealed prints and a signed and sealed set of Mylar's to the ENGINEER for permanent record keeping, along with two (2) digital copies of the Record Drawings on CD in AutoCAD 2000 format or later and one (1) copy, in PDF format, on CD. In addition, the CONTRACTOR shall provide the required number of copies to the ENGINEER to assist in the closing out of all necessary permits.

END OF SECTION

SECTION 01730

OPERATION & MAINTENANCE MANUALS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Detailed information for the preparation, submission, and ENGINEER's review of Operation and Maintenance (O&M) Data, as required by individual specification Sections. The O&M information shall be prepared specifically for this project, and shall include all sections and organization as specified herein.

1.02 DEFINITIONS

- A. Preliminary Data: Initial and subsequent submissions for ENGINEER's review.
- B. Final Data: ENGINEER-accepted data, submitted as specified herein.
- C. Maintenance Operation: As used on Maintenance Summary Form is defined to mean any routine operation required to ensure satisfactory performance and longevity of equipment. Examples of typical maintenance operations are lubrication, belt tensioning, adjustment of pump packing glands, and routine adjustments.

1.03 SEQUENCING AND SCHEDULING

- A. Equipment and System Data.
 - 1. Preliminary Data:
 - a. Do not submit until Shop Drawing for equipment or system has been reviewed and approved by ENGINEER and OWNER.
 - b. Submit prior to shipment date.
 - 2. Materials and Finished Data
 - a. Preliminary Data: Submit at least 15 days prior to request for start-up.
 - b. Final Data: Submit within 10 days after final inspection.

1.04 DATA FORMAT

- A. Prepare preliminary data in the form of an instructional manual. Prepare final data in data compilation format in electronic media.
- B. Instructional Manual Format:
 - 1. Binder: Commercial quality, permanent, three-ring or three-post binders with durable plastic cover.
 - 2. Size: 8½ inches by 11 inches, minimum.
 - 3. Cover: Identify manual with typed or printed title “OPERATION AND MAINTENANCE MANUAL” and list:
 - a. Project title.
 - b. Month and year.
 - c. Designate Applicable system, equipment, material, or finish.
 - d. Identity of separate structure as applicable.
 - e. Identity of general subject matter covered in the manual.
 - f. Spine shall have the project title, month and year, and “OPERATION AND MAINTENANCE MANUAL” printed on it.
 - 4. Title Page
 - a. CONTRACTOR name, address, and telephone number.
 - b. Subcontractor, supplier, installer, or maintenance contractor’s name address, and telephone number, as appropriate.
 - i. Identify area of responsibility of each.
 - ii. Provide name and telephone number of local source of supply for parts and replacement.
 - 5. Table of Contents:
 - a. Neatly typewritten and arranged in systematic order with consecutive page numbers.
 - b. Identify each product by product name and other identifying numbers or symbols set forth in the Contract Documents.

6. Paper: 20-pound minimum, white for typed pages.
7. Text: manufacturer's printed data, or neatly typewritten.
8. Three-hole punch data for binding and composition; arrange printing so that punched holes do not obliterate data.
9. Material shall be suitable for reproduction, with quality equal to original. Photocopying of materials will be acceptable, except for material containing photographs.

C. Data Compilation Format:

1. Compile all ENGINEER-accepted preliminary O&M data into a hard-copy, hard-bound set.
2. Each set shall consist of the following:
 - a. Binder: Commercial quality, permanent, three-ring or three-post binders with durable plastic cover.
 - b. Cover: Identify each volume with typed or printed title "OPERATION AND MAINTENANCE MANUAL, VOLUME NO. ____ OF ____", and list:
 - i. Project title
 - ii. CONTRACTOR's name, address, and telephone number.
 - iii. If entire volume covers equipment or system provided by one (1) supplier include the following:
 - a) Identity of general subject matter covered in the Manual.
 - b) Identity of equipment number and specification Section.
 - c. Provide each volume with title page and typed table of contents with consecutive page numbers. Place content of entire set, identified by volume number in each binder.
 - d. Table of contents neatly typewritten, arranged in systematic order:
 - i. Include list of each product, indexed to content of each volume.
 - ii. Designate system or equipment for which it is intended.
 - iii. Identify each product by product name and other identifying numbers or symbols set forth in the Contract Documents.

- e. Section Dividers:
 - i. Heavy, 80-pound cover weight, tabbed with numbered plastic index tabs.
 - ii. Fly-leaf:
 - a) For each separate product, or each piece of operating equipment, with typed description of product and major component parts of equipment.
 - b) List with each product:
 - i. Name address, and telephone of subcontractor, suppliers, installer and maintenance contractor as applicable.
 - ii. Identity area of responsibility of each.
 - iii. Provide local source of supply for parts and replacement.
 - iii. Identity of separate structure as applicable.
- f. Assemble and bind material, as much as possible, in the same order as specified in the Contract Documents.

D. Electronic Media Format:

- 1. Portable Document Format (PDF):
 - a. After all preliminary data has been found to be acceptable to the ENGINEER, submit O&M data in PDF format on CD.
 - b. Files to be exact duplicates of ENGINEER-accepted preliminary data. Arrange by specification number and name.
 - c. Files to be fully functional and viewable in the latest version of Adobe Acrobat.
 - d. The table of contents shall include hot links to the individual sections.

1.05 SUBMITTALS

A. Informational

- 1. Data outline: submit two (2) copies of a detailed outline if the proposed organization and content of the Final Manuals prior to preparation of the preliminary manuals.
- 2. Preliminary Data:
 - a. Submit two (2) copies for ENGINEER's review.

- b. If data meets conditions of the Contract:
 - i. One (1) copy will be returned to the CONTRACTOR.
 - ii. One (1) copy will be forwarded to the project representative.
 - c. If data does not meet conditions of the Contract:
 - i. All copies will be returned to the CONTRACTOR with the ENGINEER's comments for revision.
 - ii. ENGINEER's comments will be retained in ENGINEER's file.
 - iii. Resubmit two (2) copies revised in accordance with the ENGINEER's comments.
3. Final Data: Submit two (2) copies in format specified herein.

1.06 DATA FOR EQUIPMENT AND SYSTEMS

A. Content for each unit (or common Units) and system:

- 1. Product Data:
 - a. Include only those sheets that are pertinent to specific product.
 - b. Clearly annotate each sheet to:
 - i. Identify specific product or part installed.
 - ii. Identify data applicable to installation.
 - iii. Delete references to inapplicable information.
 - c. Function, normal operating characteristics, and limiting conditions.
 - d. Performance curves, engineering data, nameplate data, and tests.
 - e. Complete nomenclature and commercial number of replaceable parts.
 - f. Original manufacturer's part list, illustrations, detailed assembly drawings showing each part with part numbers and sequentially numbered part list, and diagrams required for maintenance.
 - g. Spare parts ordering instructions.
 - h. Where applicable, identify installed spares and other provisions for future work (e.g. reserved panel space, unused components, wiring, and terminals).
- 2. As-installed, color coded piping diagrams.

3. Charts of valve tag numbers, with the location and function of each valve.
4. Drawings: Supplement product data with Drawings as necessary to clearly illustrate:
 - a. Format:
 - i. Provide reinforced, punched, binder tab: bind in with text.
 - ii. Reduced to 8½ inches by 11 inches, or 11 inches by 17 inches folded to 8½ inches by 11 inches.
 - iii. Where reduction is impractical, fold and place in 8½ inch by 11 inch envelopes bound in text.
 - iv. Identify specification section and product on drawings and envelopes.
 - b. Relations of component parts of equipment and systems.
 - c. Control and flow diagrams.
 - d. Coordinate drawings with Project record documents to assure correct illustration of completed installation.
5. Instructions and procedures: Within text, as required to supplement product data.
 - a. Format:
 - i. Organize in consistent format under separate heading for each different procedure.
 - ii. Provide logical sequence of instructions for each procedure.
 - iii. Provide information sheet for OWNER's personnel, including:
 - a) Proper procedures in the event of failure.
 - b) Instances that might affect validity of guarantee or bond.
 - b. Installation instructions: Including alignment, adjusting, calibrating, and checking.
 - c. Operating procedures:
 - i. Startup, break-in, routine, and normal operating instructions.
 - ii. Test procedures and results of factory tests where required.
 - iii. Regulation, control, stopping, and emergency instructions.
 - iv. Description of operating sequence by control manufacturer.
 - v. Shutdown instructions for both short and extended duration.
 - vi. Summer and winter operating instructions, as applicable.
 - vii. Safety precautions.
 - viii. Special operating instructions.

- d. Maintenance and Overhaul procedures:
 - i. Routine maintenance.
 - ii. Guide to troubleshooting.
 - iii. Disassembly, removal, repair, reinstallation, and reassembly.
 - 6. Start-up information and test reports.
 - 7. Guarantee, bond, and service agreement: in accordance with **Section 01780 - Closeout Submittals**.
- B. Content for each electronic item or system:
- 1. Description of unit and component parts:
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data, nameplate data, and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 - d. Interconnection wiring diagrams, including control and lighting systems.
 - 2. Circuit directories of panelboard:
 - a. Electrical service.
 - b. Controls.
 - c. Communication.
 - 3. List of electrical relay settings and control and alarm contact settings. Include a copy of all configuration settings and files on a USB thumb-drive.
 - 4. Electrical interconnection wiring diagram, including control and lighting systems.
 - 5. As-installed control diagrams by control manufacturer.
 - 6. Grounding measurements
 - 7. Operating procedures:
 - a. Routine and normal operating instructions.

- b. Sequences required.
 - c. Safety precautions.
 - d. Special operating instructions.
- 8. Maintenance procedures:
 - a. Routine maintenance.
 - b. Guide to troubleshooting.
 - c. Adjustment and checking.
 - d. List of relay settings, control, and alarm contact settings.
- 9. Manufacturer's printed operating and maintenance instructions.
- 10. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
- 11. Start-up information and test reports.

C. Maintenance summary

- 1. Compile individual maintenance summary for each applicable equipment item, respective unit or system, and for components of subunits.
- 2. Format:
 - a. Use maintenance summary form bound with this Section.
 - b. Each maintenance summary may take as many pages as needed.
 - c. Use only 8½ x 11 paper.
 - d. Complete using typewriter or electronic printing.
- 3. Include detailed lubrication instructions and diagrams showing points to be greased or oiled; recommended type, grade, and temperature range of lubricants and frequency of lubrication.
- 4. Recommended spare parts:
 - a. Data to be consistent with manufacturer's bill of materials/parts list furnished in the O&M Manuals.

- b. “Unit” is the unit of measure for ordering the part.
- c. “Quantity” is the number of units recommended.
- d. “Unit Cost” is the current purchase price.

1.07 DATA FOR MATERIALS AND FINISHES

- A. Content for architectural products, applied materials and finishes:
 - 1. Manufacturer’s data, giving full information on products:
 - a. Catalog number, size, and composition.
 - b. Color and texture designations.
 - c. Information required for reordering special manufactured products
 - 2. Instructions for care and maintenance
 - a. Manufacturer’s recommendation for types of cleaning agents and methods.
 - b. Cautions against cleaning agents and methods that are detrimental to product.
 - c. Recommended schedule for cleaning and maintenance.
- B. Content for moisture protection and weather exposed products.
 - 1. Manufacturer’s data, giving full information on products:
 - a. Applicable standards.
 - b. Chemical composition.
 - c. Details of installation.
 - 2. Instructions for inspection, maintenance and repair.

1.08 WELL COMPLETION AND TESTING

- A. The O&M Manual shall contain the well completion reports for each surficial aquifer production well.

- B. The Manual shall include copies of all chemical, microbial, and disinfection testing reports.

1.09 ADDITIONAL ITEMS FOR THE O&M MANUAL

- A. Record drawings provided by the CONTRACTOR.
- B. Hydrogeologic report provided by the ENGINEER/Hydrogeologist.
- C. CD containing the approved submittals for the project.
- D. A copy of the flow meter calibration report
- E. The depth the well pump was set below land surface.

1.10 SUPPLEMENTS

- A. The supplement listed below, following “END OF SECTION,” are part of this specification.
 - 1. Form: Maintenance Summary Form.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

MAINTENANCE SUMMARY FORM

PROJECT: _____ CONTRACT NO.: _____

1. EQUIPMENT ITEM _____

2. MANUFACTURER _____

3. EQUIPMENT/TAG NUMBER _____

4. WEIGHT OF INDIVIDUAL COMPONENTS (OVER 100 POUNDS) _____

5. NAMEPLATE DATA (hp, voltage, speed, etc.) _____

6. MANUFACTURER'S LOCAL REPRESENTATIVE _____

a. Name _____ Telephone No. _____

b. Address _____

7. MAINTENANCE REQUIREMENTS

Maintenance Operation Comments	Frequency	Lubricant (If Applicable)
List briefly each maintenance operation required and refer to specific information in manufacturer's standard maintenance manual, if applicable. (Reference to manufacturer's catalog or sales literature is not acceptable.	List required frequency of each maintenance operation.	Refer by symbol to lubricant required.

8. LUBRICANT LIST

Reference Symbol	Shell	Exxon Mobil	Chevron Texaco	BP Amoco	Or Equal
List Symbols used in No. 7 above	List equivalent lubricants as distributed by each manufacture for the specific use recommended.				

9. RECOMMENDED SPARE PARTS FOR OWNER'S INVENTORY

Part No.	Description	Unit	Quantity	Unit Cost
Note: Identify parts provided by this Contract with two asterisks.				

SECTION 01750

GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated, for the following:
 - 1. Preservation of Property.
 - 2. Siltation and Bank Erosion.
 - 3. Utility Construction and Adjustment.
 - 4. CONTRACTOR's Responsibility.
 - 5. Use of Chemicals.
 - 6. Progress of Work.
 - 7. OSHA.
 - 8. Utilities and Structures Shown on the Plans.
 - 9. Drainage.
 - 10. Restoration of Surface Improvements.
 - 11. Hours of Operation.
 - 12. Cutting and Patching

1.02 PRESERVATION OF PROPERTY

- A. Preserve from damage all property along the line of the work, or which is in the vicinity of or is in any way affected by the work, the removal or destruction of which is not called for by the plans.
- B. Wherever such property is damaged due to the activities of the CONTRACTOR, it shall be immediately restored to its original condition by the CONTRACTOR at no cost to the OWNER. CONTRACTOR is made aware that the project area is a residential area. All areas disturbed by construction activities shall be immediately restored to existing conditions or better.
- C. In case of failure on the part of the CONTRACTOR to restore such property, or make good such damage or injury, the OWNER may, after 48 hours notice to the

CONTRACTOR, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the CONTRACTOR under this contract.

1.03 SILTATION AND BANK EROSION

- A. Take adequate precautions to minimize siltation and bank erosion in the vicinity of canals or ditches, in discharging well point systems or during other construction activities.
- B. If well pointing, the CONTRACTOR shall notify the South Florida Water Management District and/or the Northern Palm Beach County Water Control District as applicable and procure and necessary permits.

1.04 UTILITY CONSTRUCTION AND ADJUSTMENT

- A. Bid items for liner systems, pump stations, drainage structures, and appurtenances are for new work only.
- B. Prices bid for these items shall include all work incidental thereto, such as pavement repair, existing pond lining repair, sodding, landscape and irrigation repair, and all other required restoration work unless otherwise called for.
- C. Where it is necessary to relocate, lower or otherwise adjust existing mains and appurtenances as may be required to accomplish the new pipeline construction, the cost of work shall be included in the unit prices or lump sum bid for such new pipeline.

1.05 CONTRACTOR'S RESPONSIBILITY

- A. The CONTRACTOR shall be held strictly responsible for all parts of the work.
- B. If failures in the Work develop within one year from the date of final acceptance, the CONTRACTOR shall be required to replace all faulty material at his full expense. A one (1) year warranty walkthrough shall be attended by the CONTRACTOR with the ENGINEER and the OWNER.
- C. The CONTRACTOR is advised to purchase material under a guarantee from the manufacturer, guaranteeing proper service under conditions that are established by the drawings, specifications and local conditions.
- D. The CONTRACTOR shall also be responsible for the following:
 - 1. Charges by others for assistance to the CONTRACTOR for such work as supporting, replacing, moving or providing protection for their facilities as necessitated by the CONTRACTOR's operation.
 - 2. All costs of restoration of the work site to condition equal or better than prior to construction, including landscaping and irrigation systems.

3. All costs of restoration of pavements and structures damaged by the CONTRACTOR's operation. Likewise the CONTRACTOR shall pay all costs of restoring all work areas and all areas where construction materials are stored, whether new materials to be installed or materials removed from the work area incidental to the work solely to the satisfaction of the OWNER.
4. All public liability, property damage and contractual liability insurance required by others to permit the CONTRACTOR's operation.

1.06 USE OF CHEMICALS

- A. Any chemical used by the CONTRACTOR during the course of construction shall meet the regulatory requirements of either the Environmental Protection Agency or the United States Department of Agriculture, and shall be approved by the ENGINEER prior to use.
- B. All work shall comply with the Palm Beach County Wellfield ordinance. All chemicals and fuel shall be properly contained and any spills shall be immediately reported and cleaned at no additional cost to the OWNER.

1.07 PROGRESS OF WORK

- A. If at any time, the materials and appliances to be used appear to the ENGINEER as insufficient or improper for securing the quality of work or rate of progress required for the project, he may order the CONTRACTOR to increase his efficiency or improve the character of work.
- B. The failure of the ENGINEER to demand any increase of such efficiency or improvement shall not release the CONTRACTOR from his obligation to secure the quality of work or the rate of progress necessary to complete the work within the limits imposed by the Contract.

1.08 OSHA

- A. Bidders must comply with the Department of Labor, Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-956) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).

1.09 UTILITIES AND STRUCTURES SHOWN ON THE PLANS

- A. Existing utilities and facilities are shown on the contract drawings only for the convenience of all parties concerned and were established without guarantee as to their accuracy or completeness of location.
- B. Because of conflicting and sometimes erroneous information, certain facilities may not be located precisely as shown, or may be omitted entirely.

- C. Prior to performing any work, the CONTRACTOR shall determine, by site inspection or otherwise, all pertinent data concerning the existing utilities, structures, and facilities, including the request of each utility agency to advise him of the location of their facilities in the work vicinity.
- D. The CONTRACTOR shall be completely responsible for the relocation, as required, of existing utilities and structures with such work accomplished at no additional cost to the OWNER.
- E. The OWNER and ENGINEER will assume no liability for damages sustained or costs incurred because of the CONTRACTOR's operations in the vicinity of the existing utilities or structures.
- F. The CONTRACTOR shall schedule his work in such a manner that he is not delayed by the utility companies relocating or supporting their utilities. No compensation shall be made for such loss of time.
- G. The position of certain structures and utilities directly affects the proposed construction. Therefore, in order to insure that the proposed work can actually be positioned as planned, the CONTRACTOR shall make any excavation necessary for location of structures and utilities prior to construction of that particular portion of the job.
- H. All overhead, surface or underground structures encountered in trenching, whether shown on the Plans or not shown on the Plans, are to be carefully protected from injury or displacement, and all damage to such structures is to be completely repaired within a reasonable time; otherwise, the ENGINEER may give 24 hours notice to the CONTRACTOR, then repair the damage at the CONTRACTOR's expense.
- I. All such repairs made by the CONTRACTOR are to be made to the satisfaction of the ENGINEER; all damaged pipes must be replaced or prevented from leaking. Also, all such repairs are to be inspected by the ENGINEER prior to backfilling. The CONTRACTOR must carefully protect from disturbance or injury, all monuments, stakes and bench marks, and shall not excavate nearer than five (5) feet to any of them until they have been removed, witnessed or otherwise disposed of by the ENGINEER.

1.10 DRAINAGE

- A. Grading shall be controlled in the vicinity of excavations so that the surface of the ground will be properly sloped to prevent water from running into trenches or other excavated areas.
- B. Any water that accumulates in the excavations shall be removed promptly by well point or by other means satisfactory to the ENGINEER in such a manner as to not create a nuisance to adjacent property or public thoroughfare.

- C. Trenches shall be kept dry while pipe is being laid. Bridging of dewatering pipe shall be provided where necessary.
- D. Pumps and engines for well point systems shall be operated with mufflers, at a minimum noise level suitable to a residential area.
- E. The CONTRACTOR will not be allowed to discharge water into any storm drainage system without the written approval of the OWNER of that system.
- F. Approval will be subject to the conditions that the storm sewer be returned to its original conditions.
- G. The CONTRACTOR is responsible for carrying the water to the nearest ditch or body of water and for obtaining the necessary permission to use same.
- H. The CONTRACTOR shall be financially responsible for any nuisance or damage created due to carrying off water from his drainage system.

1.11 RESTORATION OF SURFACE IMPROVEMENTS

- A. Roadways, including shoulders, alleys and driveways of shell, limerock, asphalt, concrete, stabilized soil or gravel, grade plots, sod, shrubbery, ornamental trees, signs, mailboxes, fences, irrigation systems, or other surface improvements on public or private property which have been damaged or removed in excavating or other construction operations, shall be restored to conditions equal to or better than conditions existing prior to beginning work.
- B. Restoration shall consist of sodding.
- C. CONTRACTOR is urged to investigate existing irrigation systems in order to minimize repair work necessary. No extra costs will be paid as a result of damage to existing irrigation systems.
- D. The cost of doing this work shall be included in the cost of the various applicable items or the lump sum bid amount unless a separate payment item has been established for specific restoration Work.
- E. Pre-Construction Audio Video DVDs - as specified will be used as an aid in determining conditions prior to construction.

1.12 HOURS OF OPERATION

- A. The CONTRACTOR is hereby informed and understands that certain noise between the hours of 6:00 PM and 8:00 AM is restricted. Therefore, the work is restricted during these hours, unless emergency conditions exist that are endangering life or property, as may be determined by the ENGINEER.
- B. If the CONTRACTOR is authorized to operate equipment 24 hours per day, the engines shall be provided with residential type silencers approved by the ENGINEER.

- C. The CONTRACTOR will not be authorized to work Saturdays, Sundays or holidays unless the CONTRACTOR agrees to reimburse the OWNER for all expenses incurred and provided that such work is prior to the commencement of work.

1.13 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements which affects:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.
 - 3. Efficiency, maintenance, or safety of element.
 - 4. Visual qualities of sight-exposed elements.
 - 5. Work of OWNER or separate CONTRACTOR.
- C. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
 - 1. Fit the several parts of the Work together, to integrate with other Work.
 - 2. Uncover Work for installation of subsequent Work or to correct ill-timed Work.
 - 3. Remove and replace defective and non-conforming Work.
 - 4. Remove samples of installed Work for testing.
 - 5. Provide openings in elements of Work for penetrations by mechanical and electrical Work.
- D. Execute Work by methods, which will avoid damage to other Work, and provide proper surfaces to receive patching and finishing.
- E. Cut rigid materials using masonry saw or core drill, as required.
- F. Restore Work with new Products in accordance with requirements of Contract Documents.
- G. Construct a tight fit between the Work and pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.
- I. Identify any hazardous substance or condition exposed during the Work to the ENGINEER.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

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SECTION 01780
CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

1. Submit prior to application for final payment.
 - a. Written certification that Contract Documents have been reviewed, Work has been inspected, and that the Work is complete in accordance with the Contract Documents and ready for ENGINEER's inspection.
 - b. Record Documents: As required in General Conditions.
 - c. Approved Shop Drawings and Samples: As required in General Conditions.
 - d. Special Bonds, Special Guarantees, and Service Agreements.
 - e. Consent of Surety to Final Payment: As required in General Conditions.
 - f. Releases of Waivers of Liens and Claims: As required in General Conditions.
 - g. Releases from Agreements.
 - h. Final Application for Payment: Submit in accordance with procedures and requirements stated in **Section 01200 – Measurement and Payment**.
 - i. Extra Materials: As required by individual specification Sections.
 - j. Conduct and submit results of all sampling tests in accordance with **Section 04200 – Well Facility Disinfection and Water Quality Sampling** of the specifications.

1.02 RECORD DOCUMENTS

A. Quality Assurance.

1. Furnish qualified and experienced person, whose duty and responsibility shall be to maintain record documents.
2. Accuracy of Records:
 - a. Coordinate changes within record documents, making legible and accurate entries on each sheet of Drawings and other documents where such entry is required to show change.
 - b. Purpose of Project record documents is to document factual information regarding aspects of the Work. Both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive site measurement, investigation, and examination.
3. Make entries within 24 hours after receipt of information that a change in the Work has occurred.
4. Prior to submitting each request for progress payment, request ENGINEER's review and approval of current status of record documents. Failure to properly maintain, update, and submit record documents may result in a deferral by ENGINEER to recommend whole or any part of CONTRACTOR's Application for Payment, either partial or final.

1.03 RELEASES FROM AGREEMENTS

- A. Furnish OWNER written releases from property owners or public agencies where side agreements or special easements have been made, or where CONTRACTOR's operations have not been kept within the OWNER's construction right-of-way.
- B. In the event CONTRACTOR is unable to secure written releases:
 1. Inform OWNER of the reasons.
 2. OWNER or its representatives will examine the site, and OWNER will direct CONTRACTOR to complete the WORK that may be necessary to satisfy terms of the side agreement or special easement.
 3. Should CONTRACTOR refuse to perform this Work, OWNER reserves right to have it done by separate contract and deduct cost of same from Contract Price, or require CONTRACTOR to furnish a satisfactory Bond in a sum to cover legal claims for damages.

4. When OWNER is satisfied that the Work has been complete in agreement with Contract Documents and terms of side agreement or special easement, right is reserved to waive requirement for written release if: (i) CONTRACTOR's failure to obtain such statement is due to grantor's refusal to sign, and this refusal is not based upon any legitimate claims that CONTRACTOR has failed to fulfill terms of side agreement or special easement, or (ii) CONTRACTOR is unable to contact or has had undue hardship in contacting grantor.

1.04 WARRANTIES

- A. Provide duplicate notarized copies.
- B. Execute and assemble documents from Subcontractors, suppliers and manufacturers.
- C. Provide table of contents and assemble in binder with durable plastic cover.
- D. Submit prior to the final Application for Payment.
- E. For items of work delayed beyond date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.
- F. Provide operation and maintenance documentation.
- G. CONTRACTOR shall attend a One-Year Warranty walkthrough and resolve any issues at his own expense.

PART 2 – PRODUCTS

NOT USED

PART 3 - EXECUTION

3.01 MAINTENANCE OF RECORD DOCUMENTS

- A. General:
 1. Promptly following commencement of Contract Times, secure from ENGINEER at no cost to CONTRACTOR, one complete set of Contract Documents. Drawings will be full size.
 2. Delete ENGINEER title block and seal all documents.

3. Label or stamp record document with title, "RECORD DOCUMENTS," in neat large printed letters.
4. Record information concurrently with construction progress and within 24 hours after receipt of information that change has occurred. Do not cover or conceal Work until required information is recorded.
5. Submit final Record Drawings in accordance with **Section 01720 – Record Documents**. Two (2) sets signed and sealed by the Surveyor. One (1) set of signed and sealed Mylar's. One (1) copy on CD in AutoCAD 2000 format or better, and one (1) copy on CD in *.pdf format. In addition, the CONTRACTOR is to provide the required number of sets of signed and sealed Record Drawings in order to assist the ENGINEER in closing out the necessary Permits.

B. Preservation:

1. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
2. Make documents and samples available at all times for observation by ENGINEER.

C. Making Entries on Drawings:

1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe change by graphic line and note as required.
 - a. Color Coding:
 - i. Green when showing information deleted from Drawings.
 - ii. Red when showing information added to Drawings.
 - iii. Blue and circled in blue to show notes.
2. Date entries.
3. Call attention to entry by "cloud" drawn around area or areas affected.
4. Legibly mark to record actual changes made during construction, including but not limited to:
 - a. Depths of various elements of foundation in relation to finished first floor data if not shown or where depth differs from that shown.
 - b. Horizontal and vertical locations of existing and new Underground Facilities and appurtenances, and other underground structures,

equipment, or Work. Reference to at least two (2) measurements to permanent surface improvements.

- c. Location of internal utilities and appurtenances concealed in the construction referenced to visible and accessible features of the structure.
 - d. Locate existing facilities, piping, equipment, and items critical to the interface between existing physical conditions or construction and new construction.
 - e. Changes made by Addenda and Field Orders, Work Change Directive, Change Order, Written Amendment, and ENGINEER's written interpretation and clarification using consistent symbols for each and showing appropriate document tracking number.
5. Dimensions on Schematic Layouts: Show on record drawings, by dimension, the centerline of each run of items such as are described in previous subparagraph above.
- a. Clearly identify the item by accurate note such as "cast-iron drain," "galvanized water," and the like.
 - b. How by symbol or note, vertical location of item ("under slab," "in ceiling plenum," "exposed," and the like).
 - c. Make identifications so descriptive that it may be related reliably to Specifications.

3.02 FINAL CLEANING

- A. At completion of the Work or of a part thereof and immediately prior to CONTRACTOR's request for certificate of Substantial Completion; or if no certificate is issued, immediately prior to CONTRACTOR's notice of completion, clean entire site or parts thereof, as applicable.
 - 1. Leave the Work and adjacent areas affected in a cleaned condition satisfactory to OWNER.
 - 2. Remove grease, dirt, dust, paint or plaster splatter, stains, labels, fingerprints, and other foreign materials from exposed surfaces.
 - 3. Repair, patch, and touch up marred surfaces to specified finish and match adjacent surfaces.
 - 4. Clean all windows.

5. Clean and wax wood, vinyl, or painted floors.
 6. Broom clean exterior paved driveways and parking areas.
 7. Hose clean sidewalks, loading areas, and other areas contiguous with principal structures.
 8. Rake clean all other surfaces.
 9. Replace air-handling filters and clean ducts, blowers, and coils of ventilation units operated during construction.
 10. Leave water courses, gutters, and ditches open and clean.
- B. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.
- C. Adjust operating products and equipment to ensure smooth and unhindered operation.

END OF SECTION

SECTION 01810

EQUIPMENT TESTING AND FACILITY STARTUP

PART 1- GENERAL

1.01 DEFINITIONS

- A. Facility: Entire project, or an agreed-upon portion of the project, including all of its unit processes.
- B. Functional Test: Test or tests in presence of the ENGINEER and the OWNER to demonstrate that installed equipment meets manufacturer's installation, calibration, and adjustment requirements and other requirements as specified.
- C. Performance Test: Test or tests performed after any required functional tests and in the presence of the ENGINEER and the OWNER to demonstrate and confirm individual equipment meets performance requirements specified in the individual specification sections.
- D. Unit Process: as used in this Section, a unit process is a portion of the facility that performs a specific process function, such as pumping or treatment.
- E. Facility Performance Demonstration:
 - 1. A demonstration, conducted by the CONTRACTOR, with assistance of the OWNER, to demonstrate and document the performance of the entire operating facility, both manually automatically, if required, based on criteria developed in conjunction with the OWNER and as accepted by the ENGINEER.
 - 2. Such a demonstration is for the purposes of (i) verifying to the OWNER the entire facility performs as a whole, and (ii) documenting performance characteristics of complete facility for OWNER's records. Neither the demonstration nor the evaluation is intended in any way to make performance of a unit process or entire facility the responsibility of the CONTRACTOR, unless such performance is otherwise specified.

1.02 SUBMITTALS

- A. Information Submittals:
 - 1. Facility startup and performance demonstration plan.
 - 2. Functional and performance test results.

3. Start-up check-list and report for approval prior to start-up services are conducted.
4. Completed start-up check-list and report.

1.03 FACILITY STARTUP AND PERFORMANCE DEMONSTRATION PLAN

- A. Develop a written plan, in conjunction with the OWNER's operating personnel, to include the following:
 1. Step-by-step instructions for startup of each unit process and the complete facility.
 2. Start-up form to minimally include the following:
 - a. Description of the unit process, including equipment numbers/nomenclature of each item of equipment and all included devices.
 - b. Detailed procedure for startup of the unit process, including valves to be opened/closed, order of equipment startup, etc.
 - c. Startup requirements for each unit process, including water, power, controls, chemicals, etc.
 - d. Space for evaluation comments.
 - e. Sequence of unit process startup to achieve facility startup.
 - f. CONTRACTOR certification that the facility is capable of performing its intended function(s), including fully automatic operations
 - g. Signature spaces for the CONTRACTOR and the ENGINEER.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.01 GENERAL

- A. Facility Startup Meetings: Schedule, in accordance with the requirements of **Section 01039 - Coordination and Meetings**, to discuss test schedules, test methods, materials, chemicals and liquids required, facilities operations interface, and OWNER involvement.
- B. CONTRACTOR's Testing and Startup Representative:
 - 1. Designate and furnish one or more personnel to coordinate and expedite testing and facility startup.
 - 2. Representative(s) shall be present during startup meetings and shall be available at all times during testing and startup.
- C. Provide temporary valves, gauges, piping, test equipment, water, power, chemicals, laboratory analysis, and other materials and equipment required for testing and startup.
- D. Provide adequate subcontract and equipment manufacturer's staff to prevent delays. Schedule ongoing work so as not to interfere with or delay testing and startup.
- E. OWNER will:
 - 1. Operate process units and facility with support of CONTRACTOR.

3.02 EQUIPMENT TESTING

- A. Preparation:
 - 1. Complete installation before testing.
 - 2. Furnish qualified manufacturer's representatives, when required by individual specification sections.
 - 3. Obtain and submit from equipment manufacturer's representative Manufacturer's Certification of Proper Installation Form.
 - 4. Equipment Test Report Form: Provide written test report for each item of equipment to be tested, to include the minimum information:
 - a. OWNER/Project Name.

- b. Equipment or item tested.
 - c. Date and time of test.
 - d. Type of test performed (functional or performance).
 - e. Test method.
 - f. Test conditions.
 - g. Test results.
 - h. Signature spaces for CONTRACTOR and ENGINEER as witness.
5. Cleaning and Checking: Prior to beginning functional testing:
- a. Calibrate testing equipment in accordance with manufacturer's instructions.
 - b. Inspect and clean equipment, devices, connected piping, and structures to ensure they are free of foreign material.
 - c. Lubricate equipment in accordance with manufacturer's instructions.
 - d. Turn rotating equipment by hand when possible to confirm that equipment is not bound.
 - e. Open and close valves by hand and operate other devices to check for binding, interference, or improper functioning.
 - f. Check power supply to electric-powered equipment for correct voltage.
 - g. Adjust clearances and torque.
 - h. Test piping for leaks.
6. Ready-to-test determination will be by ENGINEER based at least on the following:
- a. Acceptable Operation and Maintenance Data.
 - b. Notification by CONTRACTOR of equipment readiness for testing.
 - c. Receipt of Manufacturer's Certificate of Proper Installation.

- d. Receipt and approval of start-up check-list and from.
- e. Adequate completion of work adjacent to, or interfacing with, equipment to be tested, including items to be furnished by the OWNER, if any.
- f. Availability and acceptability of manufacturer's representative, when specified, to assist in testing of respective equipment.
- g. Satisfactory fulfillment of other specified manufacturer's responsibilities.
- h. Equipment and electrical tagging complete.
- i. Delivery of all spare parts and special tools.

B. Functional Testing:

- 1. Conduct as specified in individual specification Sections.
- 2. Notify OWNER and ENGINEER in writing at least 10 days prior to scheduled date of testing.
- 3. Prepare Equipment Test Report summarizing test method and results.
- 4. When, in ENGINEER's opinion, equipment meets functional requirements specified, such equipment will be accepted for purposes of advancing to performance testing phase, if so required by individual Specification sections. Such acceptance will be evidenced by ENGINEER/OWNER's signature as witness on Equipment Test Report.

C. Performance Testing:

- 1. Conduct as specified in individual specification Sections.
- 2. Notify ENGINEER and OWNER in writing at least 10 days prior to scheduled test date.
- 3. Performance testing shall not commence until equipment has been accepted by ENGINEER as having satisfied functional test requirements specified.
- 4. Type of fluid, gas, or solid for testing shall be as specified.
- 5. Unless otherwise indicated, furnish labor, materials, and supplies for conducting the test and taking samples and performance measurements.

6. Prepare Equipment Test Report summarizing test method and results.
7. When, in ENGINEER's opinion, equipment meets performance requirements specified, such equipment will be accepted as conforming to Contract requirements. Such acceptance will be evidenced by ENGINEER's signature on Equipment Test Report.

3.03 STARTUP OF UNIT PROCESSES

- A. Prior to unit process startup, equipment within unit processes shall be accepted by ENGINEER as having met functional and performance testing requirements specified.
- B. Startup sequencing of unit processes shall be as chosen by the CONTRACTOR to meet schedule requirements.
- C. Make adjustments, repairs, and corrections necessary to complete unit process startup.
- D. Startup shall be considered complete when, in the opinion of the ENGINEER, the unit process has operated in the manner intended for five (5) continuous days without significant interruption. This period is in addition to functional or performance test periods specified elsewhere.
- E. Significant Interruption: May include any of the following events:
 1. Failure of CONTRACTOR to provide and maintain qualified onsite startup personnel as scheduled.
 2. Failure to meet specified functional operation for more than two (2) consecutive hours.
 3. Failure of any critical equipment or unit process that is not satisfactorily corrected within five (5) hours after failure.
 4. Failure of any noncritical equipment or unit process that is not satisfactorily corrected within eight (8) hours after failure.
 5. As determined by the ENGINEER.
- F. A significant interruption will require startup then in progress to be stopped. After corrections are made, startup test period to start from the beginning again.

3.04 FACILITY PERFORMANCE DEMONSTRATION

- A. When, in the opinion of the ENGINEER, startup of all unit processes has been achieved, sequence each unit process to the point that the facility is operational.
- B. Demonstrate proper operation of required interfaces within and between individual unit processes.
- C. After facility is operational, complete performance testing of equipment and system not previously tested.

END OF SECTION

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DIVISION 2

SITEWORK

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SECTION 02000

UTILITY CONSTRUCTION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. This Section governs the construction of the Village of Palm Springs raw water mains, water mains, water services, gravity sewers, sewer services, force mains, lift stations and all appurtenant devices associated therewith.

1.02 SEACOAST MINIMUM CONSTRUCTION STANDARDS

- A. In addition to the requirements specified herein, construction of the facilities identified herein will be in accordance with the applicable portions of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition, all referenced specifications, and the ENGINEER's Project Manual.
- C. In the event of a conflict between any governing specifications, the more stringent requirement shall govern construction of this project.

1.03 RESTORATION

- A. Full and complete restoration of all existing facilities will be accomplished to the sole satisfaction of the OWNER without additional compensation to the CONTRACTOR. The cost of all restoration will be included in the lump sum or unit bid price and no separate payment item for restoration will be established in the schedule of values developed subsequent to bidding.

PART 2 - MATERIALS

2.01 GENERAL

- A. All construction materials shall comply with the requirements of the Contract Documents. All parts of the Contract Documents that are applicable shall govern unless a more stringent standard is required by other permitting agencies.

2.02 PIPELINE AND FITTINGS

- A. Pressure Main – Ductile iron pipe shall be Pressure Class 51 for sizes up to and including 12 inch and Pressure Class 350 for pipe sizes larger than 12 inch and shall

conform to ANSI A21.51 and AWWA C-151. Pipe interior and fittings shall have a cement mortar lining for water mains or raw water mains.

- B. Pressure Main Fittings – All pressure pipe fittings of size four (4) inch inside diameter and larger shall be ductile iron fittings with mechanical joints (MJ), unless the plans specifically call for flanged joints, restrained joints, etc. MJ fittings shall be used for buried installations. Flanged joints shall be used for above ground service. MJ fittings shall conform to requirements of ANSI A21.20 and AWWA C-153 and lined inside and coated outside as specified for the pipe.
- C. Gravity Main – PVC pipe shall meet the requirements of AWWA C-900 for sizes up to and including 12 inch and AWWA C-905 for pipe sizes larger than 12 inches.

PART 3 - EXECUTION

3.01 CONSTRUCTION

- A. All phases of construction, including but not limited to, trenching, pipe laying, backfilling, pipeline flushing, and surface restoration shall comply with the requirements of Part 1.02 as noted in this Section.
- B. Pipeline backfill not beneath paved surfaces shall be compacted to a minimum density of 98 percent of AASHTO T-180 or as required by governmental agencies having jurisdiction over the Work.

3.02 TESTING

- A. All testing, including but not limited to, trench earthwork density testing, and pipeline pressure testing shall comply with the requirements of this specification, "Florida Department of Transportation Standard Specifications for Road and Bridge Construction", Latest Edition, and the Palm Beach County Health Department.
- B. Backfill density test locations will be examined in accordance with the requirements listed on the trenching details shown on the engineering drawings.
- C. The OWNER must approve the CONTRACTOR's testing laboratory at least 60 days prior to the start of any testing.
- D. CONTRACTOR will pay for all testing and any retesting made necessary by failure to perform in accordance with the project specifications.
- E. Retesting locations around all failing tests will be located at the original test location.

F. Retest only after re-compaction of a failing test area.

G. Hydrostatic Testing

1. All pressure mains must be subject to a pressure and leakage test of at least two (2) hours in duration.
2. Test mains after the pipe and fittings are properly restrained, but before backfilled and compacted.
3. The amount of water required for hydrostatic testing will be available to the CONTRACTOR from Village of Palm Springs water sources. The CONTRACTOR shall provide means of transporting the water to the testing site.
4. Thorough pigging and flushing of the pipeline is required prior to testing. Coordinate the details of pipeline pigging and flushing with the Village of Palm Springs.
5. The length of pipe to be tested at one time shall be valve to valve on ductile iron pipe. Each directional drill shall be independently tested. The length of pipe to be tested at one time must not exceed 1,500 feet.
6. Before applying the specified test pressure, expel air completely from the pipe, valves, and appurtenances.
7. Subject pipelines to a gauge pressure of 150 psi. The pressure must not vary by more than five (5) psi for the duration of the test.
8. Inspect the line being tested. Stop all visible leaks including damp spots by using an approved method regardless of the leakage test results.
9. Allowable Leakage – Leakage during both the pressure and leakage testing shall not exceed the following formula for gasketed pipe:

$$L = (SDP^{1/2} / 148,000) \times 0.5$$

L = Allowable Leakage (gallons per hour)

S = Length of Pipe to be Tested (feet)

D = Nominal Diameter of Pipe (inches)

P = Average Test Pressure (PSIG)

No allowable leakage for polyethylene pipe

10. If leakage or pressure loss is at a rate in excess of that allowed, the CONTRACTOR must tighten the joints or replace the defective Work until the leakage and/or pressure loss is reduced to within the allowable amount.
11. All visible leakage must be repaired.
12. Record drawings for sections of line being tested must be reviewed and accepted prior to CONTRACTOR requesting test.

3.03 WARRANTY/PROJECT DOCUMENTATION

- A. All warranties and project documentation, including but not limited to record drawings and payment applications, shall comply with the requirements of these specifications.

3.04 COORDINATION

- A. All coordination of construction shall primarily occur between the CONTRACTOR and the ENGINEER. The Engineer of Record for design of this construction project is Holtz Consulting Engineers, Inc. The ENGINEER will aid the OWNER in evaluation of technical questions, coordination of the work, resolution of technical and payment disputes, and regulatory certification of the project. The ENGINEER's direct representative on this project will be:

Harrison Barron, P.E. (561) 889-5848

- B. The OWNER's direct representative who will perform coordination activities is:

Walter Sanchez, Project Manager, (561) 584-8200 Ext.8713

- C. The Utilities to coordinate with are, at a minimum:

1. Florida Power and Light.
2. AT&T.
3. Comcast Cable.
4. TECO People's Gas.
5. Other applicable utilities.

3.05 PERMITS

- A. The OWNER and ENGINEER will obtain construction permits from the Palm Beach County Health Department and the South Florida Water Management District, where applicable. If applicable, license agreements and easements for construction on public and private property will also be obtained by the OWNER and ENGINEER.
- B. The CONTRACTOR will obtain and pay for any dewatering, building or other permits necessary to perform the Work, except as identified above, including, but not limited to a Village of Palm Springs Building Permit.

END OF SECTION

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SECTION 02140

DEWATERING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Dewatering methods for utility and structural installation.

1.02 RELATED SECTIONS

- A. All of **Division 1 – General Requirements**.
- B. **Division 2 - Pipe and Structures** (as applicable).

1.03 PAYMENT

- A. Unless noted otherwise on the Bid Form, no separate payment will be made for Work covered under this Section. All costs in connection therewith or incidental thereto are to be included in the respective Contract price for the item or structure to which the Work pertains.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.01 PUMPING AND DRAINAGE

- A. The CONTRACTOR shall be responsible for determining all dewatering requirements and governmental regulations prior to commencement of work including, but not limited to, methods of drainage, removal of water, disposal of water and permitting.
- B. The CONTRACTOR shall bear all costs associated with dewatering including costs of damage to property caused by dewatering.
- C. The CONTRACTOR shall provide and maintain all necessary facilities and equipment to remove all water entering excavations and shall keep such excavations dry so as to obtain a satisfactory undisturbed subgrade foundation condition until the fills, structures or pipes to be built thereon have been completed to such extent that

they will not float or otherwise be damaged by allowing water levels to return to natural levels.

- D. Dewatering shall be conducted by a well point type system and in such a manner as to preserve the undisturbed bearing capacity of the subgrade soils at proposed bottom of excavation and to preserve the integrity of adjacent structures. Well point system installation shall be constructed with proper sand filters to prevent drawing of finer grained soil from the surrounding ground. Sump installation, over excavation of trenches, and rocking shall not be allowed as a method of dewatering.
- E. Water entering the excavation from surface runoff shall be collected in shallow ditches around the perimeter of the excavation, drained to sumps, and pumped from the excavation to maintain a bottom free from standing water.
- F. The CONTRACTOR shall take all additional precautions to prevent uplift of any structure during construction.
- G. The conveying of water in open ditches or trenches will not be allowed. Permission to use any storm sewers, or drains, for water disposal purposes shall be obtained from the authority having jurisdiction. Any requirements and costs for such use shall be the responsibility of the CONTRACTOR. However, the CONTRACTOR shall not cause flooding by overloading or blocking up the flow in the drainage facilities, and shall leave the facilities unrestricted and as clean as originally found. Any damage to facilities shall be repaired or restored as directed by the OWNER or the authority having jurisdiction, at no cost to the OWNER.
- H. Flotation shall be prevented by the CONTRACTOR by maintaining a positive and continuous operation of the dewatering system. The CONTRACTOR shall be fully responsible and liable for all damages, which may result from failure of this system.
- I. Removal of dewatering equipment shall be accomplished after the system is no longer required; the material and equipment constituting the system shall be removed by the CONTRACTOR. Well point holes shall be filled with a suitable material.
- J. The CONTRACTOR shall take all necessary precautions to preclude the accidental discharge of fuel, oil, etc., in order to prevent adverse effects on groundwater quality.
- K. CONTRACTOR shall provide for and be responsible for the prevention, control and abatement of erosion and water pollution until completion of the Project. CONTRACTOR shall provide all temporary erosion control features necessary to prevent, control and abate erosion and water pollution. During the construction of the project, the CONTRACTOR shall comply with the Water Quality Standards of the State of Florida and applicable provisions of any NPDES permits in effect.

3.02 DEWATERING PERMITS

- A. The CONTRACTOR shall be responsible for obtaining all necessary dewatering permits and for paying all associated application and permit fees.

END OF SECTION

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SECTION 02210

GRADING

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines Contractor's responsibilities unless otherwise indicated, for the following:
 - 1. Finish grading of subsoil.
 - 2. Placing, leveling and compacting topsoil.

1.02 RELATED SECTIONS

- A. All of **Division 1 – General Requirements**.
- B. **Section 02936 – Sodding**.

1.03 PROTECTION

- A. Protect landscaping and other features remaining as final work.
- B. Protect existing structures, utility poles, fences, roads, paving, curbs, sidewalks, etc.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Reused top soil or subsoil organically enhanced with appropriate compost material shall be used to perform all final grading operations in preparation for establishment of a live and healthy grass cover.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify site conditions and note irregularities affecting work of this Section.

3.02 SUBSOIL PREPARATION AND COMPACTION

- A. Eliminate uneven areas and low spots.
- B. Remove debris, roots, branches, stones, in excess of 1/2-inches in size and dispose of at an approved site.

- C. Place and compact needed fill in lifts having a maximum unconsolidated thickness of 12 inches.
- D. Compact fill to 98 percent of maximum density as determined by AASHTO Method T-180 using mechanical tamping equipment. Use a minimum amount of water to adjust fill moisture content if necessary.
- E. Restore the surface to the original grade wherever settlement occurs.

3.03 PLACING TOPSOIL

- A. Place topsoil in areas where seeding, sodding, planting is scheduled.
- B. Use topsoil in relatively dry state. Place during dry weather.
- C. Fine grade topsoil eliminating rough or low areas. Maintain levels, profiles, and contours of subgrade.
- D. Remove stone, roots, grass, weeds, debris, and foreign material while spreading.
- E. Manually spread topsoil around trees and plants to prevent damage.
- F. Lightly compact roll placed topsoil.
- G. Remove surplus subsoil and topsoil from site.
- H. Leave stockpile area and site clean and ready to receive landscaping.
- I. Top soil to match existing depth, or two (2) inches, whichever is greater.

3.04 TOLERANCES

- A. Top of topsoil: Plus or minus ½-inch.

3.05 SCHEDULE OF LOCATION

- A. The following identifies compacted topsoil thicknesses for various locations.
 - 1. Sod: 2 inches.

END OF SECTION

SECTION 02225

TRENCHING, BEDDING AND BACKFILL FOR PIPE

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities unless otherwise indicated, for the following:
 - 1. Trench excavation.
 - 2. Pipe bedding.
 - 3. Trench Backfill.
 - 4. Backfill testing.
 - 5. Measurement and Payment.
 - 6. Reference standards.

1.02 RELATED WORK

- A. All of **Division 1 – General Requirements**.
- B. **Section 02660 - Pipe and Fittings-General**.
- C. Appendices, as necessary.

1.03 MEASUREMENT AND PAYMENT

- A. No separate bid item for measurement and payment.
- B. Include trenching, bedding, backfilling, all necessary restoration, pressure, bacteriological and density testing costs under pipe installation unit costs.

1.04 REFERENCE STANDARDS

- A. Conform to the requirements of the Standards published by the following organizations. The version of each Standard in effect as of the date of the bid opening shall govern unless otherwise noted.
 - 1. American Water Works Association (AWWA).

2. American Association of State Highway and Transportation Officials (AASHTO).
 3. American Institute of Steel Construction (AISC).
 4. American National Standards Institute, Inc. (ANSI).
 5. American Concrete Institute (ACI).
 6. American Welding Society (AWS).
- B. Where no standards are specified, utilize good quality material and perform workmanship in accordance with the best trade practices.

PART 2 - PRODUCTS

2.01 TRENCH BACKFILL

- A. Use excavated or borrowed soil materials that are free of rock or gravel larger than two (2) inches in diameter and free of twigs, roots, or other vegetation/foreign matter.
- B. Use backfill soil that is also non-organic in nature (i.e. peat, muck are unsatisfactory) and is no more than 20 percent by weight finer than No. 200 mesh sieve.

2.02 ROCK BEDDING

- A. Use $\frac{3}{8}$ -inch to $\frac{3}{4}$ -inch washed and graded gravel having 99 percent passing a $\frac{3}{4}$ -inch sieve and 80 percent retained on a No. 8 sieve.

PART 3 - EXECUTION

3.01 CLEARING

- A. Clear pipe corridor of shrubs, trees and other foreign material prior to beginning excavation.
- B. Dispose of clearing debris at a properly permitted landfill.
- C. If a nutrient-rich topsoil layer exists, strip the topsoil and store in piles for reuse.

3.02 TRENCHING

- A. Locate all existing utilities before trenching.
- B. Install suitable barriers between the work area and vehicle/pedestrian travel lanes before trenching. Barriers must control vehicular/pedestrian work area access.
- C. Excavate trenches as specified on the engineering drawings.
- D. Completely remove all muck, peat or other incompressible/organic soils (unsuitable soils) that occur along the pipeline route.
 - 1. Minimum unsuitable soil removal limits are:
 - a. Vertical - from existing ground to surface of acceptable soil layer.
 - b. Horizontal - from both sides of the pipe centerline to a distance equal to the vertical removal depth plus the pipe diameter plus one foot.
 - c. The CONTRACTOR shall determine if the minimum removal limits noted herein are sufficient to properly construct the Work.
 - 2. Backfill areas where unsuitable soil has been removed with acceptable soil or rock bedding to the design pipe invert elevation.
 - a. Compact suitable soil backfill to 98 percent of maximum density as determined by AASHTO method T-180.
 - b. Place and compact unsuitable soil backfill in lifts having a maximum unconsolidated thickness of 12 inches.
 - c. Obtain a backfill testing schedule from the ENGINEER prior to beginning backfill. This schedule will only apply to backfill placed below the pipe invert due to removal of unsuitable soil.
- E. Excavate rock to four (4) inches below the design pipe invert.
 - 1. No additional payment will be made for rock excavation unless the total quantity of rock excavation exceeds 50 cubic yards and the rock is present in a large continuous unfractured mass.
 - 2. Concrete, asphalt and other demolition of man-made materials is not classified as rock excavation.
 - 3. Backfill after rock removal.

3.03 BEDDING

- A. Bed pipe as specified on the engineering drawings. Excavate for pipe bells as noted. Pipe shall be uniformly supported by the trench bottom prior to backfill.
- B. All pipe bedding shall be performed in a dry trench unless the bedding is part of a subaqueous installation.
- C. Trenching shall not exceed pipe installation by more than 200 linear feet.

3.04 BACKFILL

- A. General
 - 1. Backfill trench immediately after the pipe is laid unless other protection for the pipeline is provided.
 - 2. Backfill material shall be solidly tamped around the pipes in layers not to exceed six (6) inches to a level at least one (1) foot above the top of the pipe.
 - 3. Test backfill compaction at each full 12 inches of compacted backfill over the pipe.
 - 4. Test backfill at each station. Two (2) tests are required at each station. The ENGINEER reserves the right to change the testing interval but not the total number of tests. Retesting because of failed tests is not limited.
- B. Unpaved Areas
 - 1. Place and compact backfill in lifts having a maximum unconsolidated thickness of 12 inches.
 - 2. Compact backfill to 98 percent of maximum density as determined by AASHTO Method T-180 using mechanical tamping equipment. Use a minimum amount of water to adjust backfill moisture content if necessary.
 - 3. Restore the surface to the original grade wherever settlement occurs.
- C. Paved Area (Including Driveways)
 - 1. Place and compact backfill in lifts having a maximum unconsolidated thickness of eight (8) inches.
 - 2. Compact backfill to 98 percent of maximum density as determined by AASHTO Method T-180 using hand or mechanical tampers.

3. The top 12 inches of backfill (subgrade) shall be stabilized to a Florida Bearing Value of 75 PSI and then compacted per 3.04.C.2.
4. When backfilling is completed, tested and approved, the roadway base for pavement replacement may be placed immediately.
5. Restore the surface to the original grade wherever settlement occurs.

3.05 TESTING

- A. Testing shall be performed by a certified testing laboratory (at the CONTRACTOR's expense) approved by the OWNER.
- B. Pay for all backfill testing and any required backfill retesting.
- C. Retesting locations around all failing tests will be located 50 feet on both sides of each failing test and at the original failing test location.
- D. Retest only after re-compaction of a failing test area.

END OF SECTION

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SECTION 02270

EROSION, SEDIMENTATION AND DUST CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Work consists of control measures as required during the life of the Contract to control erosion, sedimentation and dust.
- B. The CONTRACTOR shall establish, construct and maintain erosion and sediment control measures. The erosion control programs shall be maintained during the entire period of construction, including any extensions in Contract time.
- C. Temporary erosion and pollution control shall include construction work off-site where such work is necessary as a result of borrow pit operations, haul roads or equipment storage sites, etc.
- D. Preparation of the Stormwater Pollution Prevention Plan (SWPPP), including modifications and updates.
- E. Obtain and comply with all provisions of the State of Florida, Department of Environmental Protection, Permit for Stormwater Discharge from Large and Small Construction Activities (NPDES Construction Site Permit Program)

1.02 REFERENCES

- A. Rule 62-40.432, F.A.C.
- B. The Florida Development Manual: A Guide to Sound Land and Water Management (DEP, 1988) and any subsequent amendments.
- C. 40 CFR Part 122.
- D. Chapter 403.0885, F.S.
- E. FDOT Standard Specifications for Road and Bridge Construction, Section 104, Latest Edition.
- F. State of Florida Department of Environmental Protection Generic permit for Stormwater Discharge from Large and Small Construction Activities – Notice of Termination of Generic Permit Coverage immediately following this Section.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.01 PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION

- A. All work shall be in accordance with the requirements of the State of Florida Department of Environmental Protection under Chapter 62-621, F.A.C. or Chapter 62-620, F.A.C.
- B. The CONTRACTOR shall provide for and be responsible for the prevention, control and abatement of erosion and water pollution until completion and acceptance of the Project. The CONTRACTOR shall provide all temporary erosion control features necessary to prevent, control and abate erosion and water pollution, and shall prepare and submit as the operator and permittee, along with the applicable application fee, the "Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities" (NOI) prior to commencing construction and the "Notice of Termination" (NOT) upon final completion of construction. The CONTRACTOR, as required by the NPDES permit program, shall prepare a stormwater pollution prevention plan (SWPPP). This SWPPP shall be modified and updated by the CONTRACTOR as necessary, to meet the requirements of the NPDES permit issued, at no additional cost to the OWNER. The CONTRACTOR shall also comply with the inspections, maintenance, reporting and all other provisions of the NPDES permitting program, and the cost for the compliance with this program is to be included in the CONTRACTOR bid price for the work.
- C. During the construction of the Project, the CONTRACTOR shall comply with the Water Quality Standards of the EPA and the State of Florida.
- D. The CONTRACTOR shall meet and be responsible for the requirements of all applicable governing agencies regarding prevention, control and abatement of erosion and water pollution.

3.02 DAMAGE TO WATER DETENTION AND DRAINAGE AREAS

- A. The CONTRACTOR shall be responsible for the prevention of damage to detention ponds, holding areas, drainage canals or natural waterways, and wetlands (both on and off site).
- B. The CONTRACTOR shall act as directed to correct said damage as quickly as possible and take necessary steps to prevent future damage. The CONTRACTOR

- shall notify the ENGINEER of said damage.
- C. The cost of correction of damage shall be at no cost to the OWNER or his agents.

3.03 DUST CONTROL

- A. The CONTRACTOR shall exercise precautionary measures to minimize dust emissions as necessary, which may include, but shall not be limited to, periodic sprinkling or wetting of the site, and shall modify measures to be implemented, as necessary, to satisfy jurisdictional agency requirements including but not limited to Palm Beach County and the Palm Beach County Health Department (Air Pollution Division) at no additional expense to the OWNER.

END OF SECTION

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SECTION 02320

TRENCHLESS INSTALLATION OF PRESSURE MAINS BY DIRECTIONAL BORING HORIZONTAL DIRECTIONAL DRILLING (HDD)

PART 1 GENERAL

1.01 SECTION DESCRIPTION

- A. This Section includes materials, performance and installation standards, and Contractor responsibilities associated with all labor, materials, equipment and incidentals required to install, complete, trenchless pressure mains and/or conduits via the horizontal directional drilling method, as shown on the Drawings and as specified herein.

1.02 EXPERIENCE

- A. The HDD Contractor shall demonstrate expertise in trenchless pipe installation via horizontal directional drill methods by providing a listing of ten (10) projects (within 30 days after the Notice to Proceed for the project and before any directional drill work is to commence) where similar Work (min. 4" diameter HDD's) has been performed in the last eight (8) years, totaling a minimum of 10,000 linear feet. The listing shall include a reference for each project with correct contact name, phone number and address, the Contractor's project manager and supervisor involved with the project, a description of the project, project location, Owner's name and contact information, quantity, size, length, and type of pipe installed by HDD. Conventional trenching experience will not be considered applicable.
- B. HDD Contractor shall submit the names and resumes of all project managers and all field supervisors proposed to be involved with the project. All supervisory personnel must be adequately trained and shall have at least four (4) years of experience in directional boring of similarly sized projects.
- C. HDD Contractor shall submit an overview of the firm, including the number of offices, number of partners and professionals, number and type (city, county, district, private) of entities served by the Contractor, disciplinary actions or lawsuits proposed against the Contractor in the last three years and the current bonding capacity, name of surety company and telephone numbers.
- D. HDD Contractor shall demonstrate that the firm owns or has access to equipment capable to construct the project.
- E. Verify the HDD Contractor has never abandoned a project (even temporarily) during a dispute.
- F. Provide documentation of HDD Contractor's safety program and safety record.

1.03 SUBMITTALS

- A. Submit manufacturer's data for the pipe materials and pipe joining materials proposed for use.
- B. Submit an estimate of the anticipated pullback thrust and loads that will be required to install the new pipe. The estimate shall include the calculated buoyant force or weight of the pipe and any proposed method for counter-weighting the pipe during pullback.
- C. Submit the directional boring equipment including the thrust and torque capacities.
- D. Submit locating equipment proposed for use, the method of locating to be used, and the proposed sequence and method of construction for approval by the Engineer in accordance with the plans and specifications. Include information on how the bores are to be steered, the information recorded, and the as-built provided.
- E. Submit the proposed tunnel sizes, proposed drilling fluid mix designs and compositions and MSDS, proposed viscosity, fluid quantities, delivery volume and pressure, method of soil / slurry separation, and proposed pre-ream procedures.
- F. Submit drilling plans which shall include the planned drill bore paths, the method for monitoring and controlling speed, line, grade and rate of fluids delivered. Include sequence, size and description of each reamer and final swabbing of bore path prior to pullback.
- G. Submit signed and sealed scaled plan and profile of proposed bore for each location. The plan shall show finished grade, entry and exit angle, deflection and radiuses of the pilot bore, all existing utilities with minimum vertical and horizontal clearances. The plan shall also address the location dimensions and layout of the drill rig and tanks and all other necessary equipment at the rig side, the proposed staging location and area needed for the piping and other components at the pullback end, the lengths of each bore based on soil condition, equipment used, topography, etc. The proposed vertical and horizontal clearances between the bored pipe and any existing / proposed conflicting pipes, conduits or obstructions shall exceed the guidance system accuracy tolerance by a minimum 100%. Give an estimate of time proposed to complete each bore.
- H. Submit an environmental protection plan and contingency plan in case of problems such as fluid loss or frac-out.
- I. The Contractor is required to bring to the attention of the Engineer any known design discrepancies with actual tunneling methods that the Contractor will be performing. This shall be stated in writing to the Engineer no later than the pre-construction meeting.
- J. Submit method of storing, transporting, and disposing of cuttings and drilling fluid. Methods shall not impact waterways or wetlands and shall be in accordance with all regulatory agencies.

1.04 REFERENCED SECTIONS

- A. Section 02661 – High Density Polyethylene (HDPE) AWWA Pipe and Fittings

PART 2 - PRODUCTS

2.01 GENERAL

- A. All pipes and fittings for the pipe installed via HDD method shall be as specified in the Contract Documents, as shown on the Construction Plans, and as approved by the Owner/Engineer.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Installation shall be in a trenchless manner producing continuous bores.
- B. Steering of the bore shall be conducted with a walkover locating system (for general work), or a wireline guidance system (for subaqueous bores, bores requiring certified as-builts, or for bores where walkover locating is not practical or desirable, such as heavily traveled high-speed roadways).
- C. The directional boring Contractor shall submit certification, by a Professional Engineer or Professional Surveyor and Mapper licensed in the State of Florida, that the directional boring has been performed in accordance to the construction drawings, and provide signed and sealed certified record drawings of the installation.
- D. The boring shall be controlled as to depth and angle. The depth between the top elevation of the bore tunnel and the surface must be as shown on the Contract Drawings. Variance from the depth shall be submitted in writing by the Contractor and approved by the Engineer.
- E. Boring shall be conducted using a mechanical boring head, assisted by and cooled by a bentonite clay drilling slurry of low pressure and volume. Liquid clay type colloidal drilling fluid shall consist of at least 10 percent of high-grade, carefully processed bentonite to consolidate cuttings of the soil, to seal the walls of the hole, and to furnish lubrication for subsequent removal of cuttings. In addition, the clay fluid must be totally inert and contain no environmental risk. Material Safety Data Sheets (MSDS) must be provided and approved for all drilling slurry compounds.
- F. Mechanical, pneumatic, or water-jetting methods will be considered unacceptable due to the possibility of surface subsidence.
- G. Backreaming shall be conducted to enlarge and prepare the bore tunnel for pipe installation. Final backreamed diameter of the tunnel shall be 1.5 times the outside diameter of the pipe or sleeve being installed, or as recommended by the pipe supplier. The number of prereams shall be appropriate to the fluid volume used, the carry ratio of the drilling fluid, and the makeup of the ground material.

- H. Contractor shall dispose of excess drilling slurry in a manner acceptable to the Owner and Engineer. Drilling slurry shall not be introduced into sewers, storm drains, canals, or bodies of water. It shall be transported offsite and to a disposal site. Pits and work areas are to be restored to equal or better condition than pre-construction condition. Location of pits and work areas shall be approved, in advance, by the Engineer. Disposal sites for drilling slurry shall be approved for disposal of this material. Contractor shall submit disposal location information to the Engineer for approval.
- I. The pilot hole shall be drilled on bore paths with no deviations greater than 5 percent of depth over the length of the bore unless previously agreed to by the Engineer. In the event that pilot does deviate from the bore path more than 5 percent of depth over the length of the bore, Contractor will notify the Engineer who may require the Contractor to pull-back and re-drill from the location along bore path before the deviation. Upon completion of pilot hole phase of the operation, a complete set of "as-built" records shall be submitted in duplicate to the Engineer. These records shall include copies of the pilot bore path plan and profile record drawing, as well as directional survey reports as recorded during the drilling operation. Upon approval of the pilot hole location by the Engineer the hole opening or enlarging phase of the installation shall begin.
- J. Pipe joints shall be welded per the manufacturer's recommendations by competent personnel.
- K. Two (2) #8 AWG Copperhead 845-EHS tracer wires shall be pulled with the pipeline for pipeline locating purposes. The wires shall be terminated in a wire access box at both ends, unless otherwise noted/indicated. The Contractor shall attach the wires to the pipe in such a way as to not break the wires during the pullback of the pipe.
- L. At the completion of the bore, the Contractor shall submit five (5) copies of the bore log to the Engineer for record keeping. The bore log shall be prepared by the subcontractor that performed the horizontal directional drill, unless the Contractor himself performed the Work.
- M. If any driveways or access roads are to be blocked by the pipe, the Contractor shall provide overhead roll-type pipe stands to elevate the pipe to such a height as to allow access into the driveways and/or access roads.
- N. A competent and experienced supervisor representing the Contractor and drilling Subcontractor shall be present at all times during the actual drilling and pull-back operations. A responsible representative who is thoroughly familiar with the equipment and type of work to be performed must be in direct charge and control of the operation at all times. In all cases, the supervisor must be continually present at the job site during the actual directional drill and pull-back operations.
- O. Contractor shall place silt fence between all drilling operations and any drainage, wellfields, wetland, waterway or other area designated for such protection if required by documents, state, federal and local regulations. Additional environmental protection necessary to contain any hydraulic or drilling fluid spills shall be put in place, including berms, liners, turbidity curtains and other measures. Contractor shall adhere to all applicable environmental regulations.

3.02 RESTORATION OF PAVED, IMPROVED AND UNIMPROVED AREAS

- A. The shoulders, ditches, banks and slopes of roads, waterways, and railroads crossed and paralleled shall be restored to their former condition and properly sodded so that they will not wash out before becoming consolidated. Restoration shall be as required by the jurisdictional authority and as specified within the Contract Documents. Road crossings and parallel installations are to be continuously maintained until completion of the Work.

3.03 SAFETY

- A. Utmost attention must be paid to all permit conditions and safety considerations, to protect lives and property. At a minimum, these things must be done:
1. Provide crew with accurate cable avoidance equipment and training to detect and avoid damage to all existing utilities.
 2. Provide crew with safety equipment which will detect electrical current and voltage, with both visual and audible alarms, in the event of contact / close proximity with electrical and/or telecommunications lines. Provide and use properly grounded matting around the boring equipment. Provide insulated work boots and gloves. Provide OSHA safety equipment and signage for work in public right-of-ways.
 3. Provide an OSHA certified Health and Safety Officer to maintain all areas of the job site. The job site superintendent may be the OSHA Certified Health and Safety Officer. At the end of each workday, pits shall be barricaded using a safety fence.

END OF SECTION

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SECTION 02660

PIPE AND FITTINGS - GENERAL

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated, for the following:
 - 1. Submittals.
 - 2. Record drawings.
 - 3. Product delivery, storage and handling.
 - 4. Product installation.
 - 5. Field quality control.

1.02 RELATED SECTIONS

- A. All of Division 1.
- B. **Section 02000 – Utility Construction.**
- C. **Section 02225 - Trenching, Bedding and Backfill for Pipe.**
- D. **Section 02666 – Ductile Iron Pipe.**
- F. **Section 02668 - Fittings, Valves and Appurtenances.**
- G. Appendices.

1.03 SUBMITTALS

- A. Submit manufacturer's data for pipes, fittings and appurtenances.
- B. Submit shop drawing of air release valve installation if installation deviates from the engineering drawings.
- C. Submit certified affidavit of compliance with material specifications for all pipe, fittings, and appurtenances.

- D. Submit hydrostatic proof, sustained pressure and burst strength reports for tests performed by the manufacturer prior to shipping.

1.04 RECORD DRAWINGS

- A. Submit record drawings prepared by a professional land surveyor that accurately record actual installed horizontal and vertical location of pipe, fittings, valves and other appurtenances in accordance with Village of Palm Springs specifications.
- B. Submit written summary of pipe stations where statutory separation between pipes has not been maintained.
- C. Accurately record all deviations from engineering drawings on the record drawing submittal.
- D. Refer to **Section 01720 – Record Documents** for additional requirements.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Handle and store products in strict accordance with manufacturer's recommendations.
- B. Handling must not damage or mar products.
- C. Store products to minimize exposure to weather, vandalism and theft.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Perform earthwork operations in accordance with **Section 02225 – Trenching, Bedding, and Backfill for Pipe**, where applicable.
- B. All laying, testing for defects and pressure testing shall be performed in the presence of the ENGINEER's and/or OWNER's representative.
- C. All defective material shall be promptly removed from the Work.
- D. Conform to the manufacturer's installation recommendations.

- E. In case of conflict between various requirements the more stringent requirement shall apply.
- F. Lay pipe with the bell end pointing in the direction of laying.
- G. Temporarily close all open pipe ends at the end of each day's work with water-tight plugs.
- H. Pipe shall be uniformly supported by the trench bottom prior to backfill.
- I. Install thrust blocking or restraint at all valves and fittings in accordance with manufacturer's recommendations, the engineering drawings, or Village of Palm Springs specifications, whichever is more stringent.
- J. Blocking or wedging between bells and spigots will not be permitted.
- K. Joint deflections shall not exceed 50 percent of the manufacturer's maximum allowable deflection.
- L. Cut pipe with saws or power driven abrasive cutters which will produce a square cut. Wedge type roller cutters will not be permitted. After cutting, bevel cut ends with beveling tool or abrasive disc and repair any damage to the interior pipe lining with a NSF 61 approved coating. Cut ends of ductile iron pipe shall be coated with coal-tar epoxy.
- M. Keep pipe free of earth and debris during installation.
- N. Pig and flush each completed pipe sections with water obtained from an approved source. The flushing volume shall be sufficient to twice exchange the volume of water in the pipe section being flushed. The flushing flow rate shall be sufficient to create a minimum water velocity of two and one half (2½) feet per second in the pipe section being flushed.
- O. Trench is to be kept clean and dry at all times.
- P. All fittings and appurtenances shall use 316 Stainless Steel hardware.

3.02 FIELD TESTING

- A. Perform earthwork density testing in accordance with **Section 02225 – Trenching, Bedding, and Backfill for Pipe.**
- B. Hydrostatic Testing - See **Section 02000 - Utility Construction**, Section 3.02.

- C. Bacteriological Testing – See **Section 04200 – Well Facility Disinfection and Water Quality Sampling**. The well head and below grade piping shall be tested from the pump flange to the connection point to the existing raw water main.

END OF SECTION

SECTION 02661

HIGH DENSITY POLYETHYLENE (HDPE) AWWA PIPE AND FITTINGS

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

- A. This specification covers high-density polyethylene (PE 4710) pressure pipe primarily intended for the transportation of sewage, raw water, potable water, or electrical/instrumentation either buried or above grade.

1.02 QUALITY CONTROL

- A. The pipe and fitting Manufacturer shall have an established quality control program responsible for inspecting incoming and outgoing materials. Incoming polyethylene materials shall be inspected for density, melt flow rate, and contamination. The cell classification properties of the material shall be certified by the supplier. Incoming materials shall be approved by Quality Control before processing into finished goods. Outgoing products shall be tested in accordance with AWWA C901 or C906. All HDPE Pipe and fittings shall be National Sanitation Foundation listed and approved for use with potable water.
- B. The Manufacturer shall maintain permanent Quality Control (QC) and Quality Assurance (QA) records. Certification or copy of these records shall be made available to the purchaser on request.

1.03 SUBMITTALS

- A. Shop Drawings: Submit for approval the following:
 - 1. Detailed procedures to be used in jointing and installing piping system, including manufacturer's recommendations.
 - 2. Bill of materials indicating material composition of pipe, pressure rating, nominal size and its location on the piping installation drawings.
 - 3. The Manufacturer shall supply an Installation Manual to the Owner which outlines guidelines for handling, joining, installing, embedding and testing of polyethylene pipeline.
 - 4. The Pipe Manufacturer shall provide visual guidelines for inspecting the butt, saddle, and socket fusion joints.
 - 5. Proposed bore profile and pilot bore "as-built".

1.04 RELATED SECTIONS

- A. Section 02320 - Trenchless Installation of Pressure Mains by Directional Boring.

1.05 REFERENCES

<u>Reference</u>	<u>Title</u>
AWWA C901	Polyethylene (PE) Pressure Pipe and Tubing, ½ in. through 3 in. for Water Service
AWWA C906	Polyethylene (PE) Pressure Pipe and Fittings, 4 in. through 63 in. for Water Distribution
ASTM D2863	Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing
ASTM D3261	Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing
ASTM D3350	Standard Specification for Polyethylene Plastics Pipe and Fittings Materials
PPI TR-3	Policies and Procedures for Developing Recommended Hydrostatic Design Stresses for Thermoplastic Pipe Materials
PPI TR-4	Recommended Hydrostatic Strengths and Design Stresses for Thermoplastic Pipe and Fittings Compounds
NSF Standard #14	Plastic Piping Components and Related Materials

PART 2 - PRODUCTS

2.01 QUALIFICATION OF MANUFACTURERS

- A. The Manufacturer shall have manufacturing and quality control facilities capable of producing and assuring the quality of the pipe and fittings required by these specifications. Given reasonable notice, the Manufacturer's production facilities shall be open for inspection by the Owner or his/her Authorized Representative. The Engineer shall approve qualified manufacturers.

2.02 MATERIAL

- A. Water and Force Main HDPE carrier pipe shall be DR-11 manufactured to ductile iron pipe outside dimensions (DIPS) and in compliance with C906, latest revision and ASTM F714. Water main shall be blue in color. Force main shall be green in color.
- B. Fiberoptic/Electrical conduit HDPE carrier pipe shall be DR-7, unless otherwise noted, for portions installed via horizontal directional drill methods manufactured to ductile iron pipe size outside dimensions (DIPS) and in compliance with C906, latest revision and ASTM F714. Fiberoptic conduit shall be orange in color. In addition, all fiber-optic conduits shall have a 2-inch 3-cell Maxcell fabric innerduct installed within it. Electrical conduit shall be red in color.
- C. Materials used for the manufacturing of polyethylene pipe and fittings shall be PE 4710 High Density Polyethylene (HDPE) meeting the ASTM D3350 cell classification of 445474C.

- D. The material shall have a minimum Hydrostatic Design Basis (HDB) of 1600 psi at 73 degrees Fahrenheit when tested in accordance with PPI TR-3 and shall be listed in the name of the pipe and fitting manufacturer in PPI TR-4.
- E. The material used in the production of potable water pipe shall be approved by the National Sanitation Foundation (NSF).
- F. The Manufacturer will certify that the materials used to manufacture pipe and fittings meet the requirements of this specification.

2.03 PIPE

- A. Polyethylene pipe shall be manufactured in accordance with AWWA C901 for sizes ½ inch through three (3) inches and in accordance with AWWA C906 for sizes four (4) inches through 54 inches.
- B. Permanent identification of piping service shall be provided by co-extruding identifiable colored markings into the pipe's outer surface. The marking material shall be the same material as the pipe material except for color. Type of piping service shall be identified by color according to the following table:

1.	Blue	- Potable and Raw
2.	Green	- Sanitary
3.	Lavender	- IQ cover all
4.	Orange	- Fiberoptic

However, refer to local regulatory rules for the required color of the piping if the piping service color is not defined above. Identification markers printed or painted on the pipe's outer surface shall not be acceptable.

2.04 FITTINGS

- A. Polyethylene fittings shall be made from material meeting the same requirements as the pipe. Polyethylene fittings shall be molded or fabricated by the manufacturer of the pipe.
- B. Unless otherwise noted, fittings shall meet the requirements of AWWA C906.
- C. Molded fittings shall be manufactured in accordance with ASTM D3261 (butt fused) and shall be so marked.
- D. Mechanical Fittings used with polyethylene pipe shall be specifically designed for, or tested and found to be acceptable for use with polyethylene pipe. Mechanical Fittings designed for other materials shall not be used unless authorized by the Mechanical Fitting Manufacturer/Supplier. Special precautions may exist with certain mechanical fitting or additional components may be required - consult the manufacturer of the fitting prior to its use.
- E. Mechanical joint adapters shall meet the requirements of AWWA C906 and shall be Pressure Class 160, DR-11 with extended 316SS tee bolts, ductile iron glands and gasket. MJ adapter shall be manufactured by Performance Pipe/ Chevron Chemical Company or approved equal. HDPE MJ Adapters shall include 316 SS stiffeners.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. HDPE pipe shall have a minimum cover as required by the Owner and as required by the Contract drawings.
- B. The Manufacturer shall supply an Installation Manual to the Owner which outlines guidelines for handling, joining, installing, embedding and testing of polyethylene pipeline. These guidelines shall be used as reference material for the Contractor in his determination of the required procedures.
- C. Joints between plain ends of polyethylene pipe shall be made by butt fusion when possible. The Pipe Manufacturer's fusion procedures shall be followed at all times as well as the recommendations of the Fusion Machine Manufacturer. The wall thickness of the adjoining pipes shall have the same DR at the point of fusion.
- D. When saddle connections are fusion welded the Manufacturer's recommended saddle fusion procedures shall be used.
- E. If mechanical fittings (which are designed for, or tested and found acceptable for use with polyethylene pipe) are utilized for transitions between pipe materials, repairs, joining pipe sections, saddle connections, or at others locations; the recommendations of the Mechanical Fitting Manufacturer must be followed. These procedures may differ from other pipe materials.
- F. Two #8 AWG Copperhead 845-EHS tracer wires shall be pulled with the pipeline for pipeline locating purposes. The wire shall be terminated in a wire access box at both ends, unless otherwise noted/indicated. The Contractor shall attach the wire to the HDPE pipe in such a way as to not break the wire during the pullback of the pipe. Tracer wire insulation shall be per Item 2.03.B of this section.
- G. The maximum allowable depth of any gouge on the carrier or casing pipe shall not exceed 5 percent of the wall thickness.
- H. At the end of the bore, the Contractor shall submit five (5) copies of the bore log to the Engineer for record keeping. The bore log shall be prepared by the Subcontractor that performed the horizontal directional drill, unless the Contractor himself performed the Work.
- I. If any driveways or access roads are to be blocked by the pipe, the Contractor shall provide overhead roll-type pipe stands to elevate the pipe to such a height as to allow access into the driveways and/or access roads.
- J. The handling of the assembled pipeline shall be in such a manner that the pipe is not damaged by dragging it over sharp or cutting objects. Slings for handling the pipeline shall not be positioned at pipe joints. Sections of the pipes with cuts and gouges or excessive deformations shall be removed and replaced.

3.02 TESTING

A. Air Pressure Test

1. Following fusing but prior to installation, all HDPE pipe shall be pressurized with air to a minimum of 5 psi. Piping shall be shut in and pressure shall be monitored at five (5) minute intervals for one (1) hour. Zero pressure loss over the course of the one-hour test will be considered a successful test. Piping shall not be installed prior to passing pre-installation pressure test and receiving acceptance from ENGINEER/OWNER. Testing shall be scheduled a min. 48-hours in advance of proposed testing date/time.

B. HYDROSTATIC TESTING AND LEAKAGE TESTING FOR HDPE PRESSURE PIPING

1. Hydrostatic and leakage testing shall be conducted in accordance with the requirements of AWWA C605.
2. Unless agreed to or otherwise designated by the OWNER or ENGINEER, for a simultaneous hydrostatic and leakage test following installation, a pressure equal to 150% of working pressure at point of test, but not less than 125% of normal working pressure at highest elevation shall be applied. Unless otherwise agreed to, the duration of the pressure test shall be for two (2) hours.
3. If hydrostatic testing and leakage testing are performed at separate times, follow procedures as outlined in AWWA C605.
4. In preparation for pressure testing the following parameters must be followed:
 - a. All air must be vented from the pipeline prior to pressurization. This may be accomplished with the use of the air relief valves or corporation stop valves, vent piping in the testing hardware or end caps, or any other method which adequately allows air to escape the pipeline at all high points. Venting may also be accomplished by 'flushing' the pipeline in accordance with the parameters and procedures as described in AWWA C605.
 - b. The pipeline must be fully restrained prior to pressurization. This includes complete installation of all mechanical restraints per the restraint manufacturer's guidelines, whether permanent or temporary to the final installation. This also includes the installation and curing of all required thrust blocking. All appurtenances included in the pressure test, including valves, blow-offs, and air-relief valves shall be checked for proper installation and restraint prior to beginning the test.
 - c. Temporary pipeline alignments that are being tested, such as those that are partially installed in their permanent location shall be configured to provide for the removal of trapped air in the pipeline.

C. INTERMEDIATE TESTING

1. Segments of the pipe may be tested separately in accordance with standard testing procedure, as approved by the OWNER and ENGINEER. Testing of each HDD installation prior to connection to the system or other piping is preferred.

END OF SECTION

SECTION 02666

DUCTILE IRON PIPE

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines contractor's responsibilities unless otherwise indicated, for the following:
 - 1. Ductile Iron Pipe (DIP).

1.02 RELATED SECTIONS

- A. All of Division 1.
- B. **Section 02000 – Utility Construction.**
- C. **Section 02225 - Trenching, Bedding, and Backfill for Pipe.**
- D. **Section 02660 - Pipe and Fittings - General.**
- E. **Section 02668 - Fittings, Valves and Appurtenances.**
- F. Appendices.

1.03 REFERENCES

- A. ANSI/AWWA C104/A21.4, Latest Revision - Cement mortar lining for ductile iron pipe and fittings for water.
- B. ANSI/AWWA C111/A21.11, Latest Revision - Rubber gasket joints for ductile iron and grey iron pressure pipe and fittings.
- C. ANSI/AWWA C115/A21.15, Latest Revision - Flanged ductile iron and grey iron pipe with threaded flanges.
- D. ANSI/AWWA C151/A21.51, Latest Revision - Ductile iron pipe, centrifugally cast in metal molds or sand lined molds for water and other liquids.
- E. ANSI/AWWA C600, Latest Revision - Installation of ductile iron water mains and appurtenances.

PART 2 - PRODUCTS

2.01 MATERIALS

A. PIPE

1. Ductile iron pipe shall be designed in accordance with the requirements of ANSI/AWWA A21.51/C151 as applicable, and the supplemental requirements of this section.
2. Ductile iron pipe shall be Pressure Class 51 for sizes up to and including 12 inch and Pressure Class 350 for pipe sizes larger than 12 inch and shall conform to ANSI A21.51 and AWWA C-151.
3. Ductile iron pipe shall be of the diameter shown on the plans.
4. Ductile iron pipe shall be furnished complete with rubber gaskets or restraint gaskets where applicable.
5. Ductile iron pipe shall be supplied in lengths not less than 18 feet, having rubber ring type push-on joints, standard mechanical joints, restrained joints, threaded flanges, or ball joints as shown on the contract documents.

B. COATING AND LININGS

1. Exterior of buried pipe shall have factory applied bituminous coating, coal tar varnish or asphalt base paint, minimum one (1) mil thick.
2. Interiors of raw water, finished water and reclaimed water mains shall be cement lined.
3. Exterior coatings damaged in the field shall be repaired with a bituminous or coal tar repair coating. Interior coatings shall be repaired with a NSF 61 approved coating.

C. JOINTS

1. Joints in straight "Runs" of buried pipe shall be push-on with mechanical joints at fittings unless indicated otherwise on the Contract Documents. Pipe restraints shall be in accordance with the Contract Documents.

D. FLANGED PIPE

1. Flanged pipe shall be Class 53 and have threaded flanges with bolts and gaskets appropriate to the service use and maximum working pressure of the pipe.
2. All flanges shall be ductile iron.

PART 3 - EXECUTION

NOT USED

END OF SECTION

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SECTION 02668

FITTINGS, VALVES AND APPURTENANCES

PART 1 - GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities unless otherwise indicated, for the following:
 - 1. Fittings.
 - 2. Gate Valves.
 - 3. Air Release Valves.
 - 4. Check Valves.
 - 5. Flow Switch.
 - 6. Pressure Gauge/Pressure Switch.
 - 7. Ball Valves.
 - 8. Mercer Couplings.
 - 9. Valve Boxes.
 - 10. Restrained Mechanical Joints.
 - 11. Butterfly Valves (Flow Control Valves).
 - 12. Dismantling Joints.
- B. All new materials shall adhere to the 2014 Environmental Protection Agency (EPA) standards for lead free brass.

1.02 RELATED SECTIONS

- A. All of Division 1.
- B. **Section 02000** – Utility Construction.
- C. **Section 02225** - Trenching, Bedding and Backfill for Pipe.

- D. **Section 02660** - Pipe and Fittings - General.
- E. **Section 02666** - Ductile Iron Pipe.
- F. Appendices.

1.03 REFERENCES

- A. ANSI/AWWA C104/A21.4, Latest Revision - Cement mortar lining for ductile iron pipe and fittings for water.
- B. ANSI/AWWA C110/A21.10, Latest Revision - Ductile iron and grey iron fittings three (3) inch through 48 inch for water and other liquids.
- C. ANSI/AWWA C111/A21.11, Latest Revision - Rubber gasket joints for ductile iron and grey iron pressure pipe and fittings.
- D. ANSI/AWWA C600, Latest Revision - Installation of ductile iron water mains and appurtenances.
- E. ANSI/AWWA C153/A21.53, Latest Revision – Ductile Iron Compact Fittings for Water Service.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Fittings (four [4] inches and larger)
 - 1. Mechanical joint fittings to be Compact Ductile Iron (Class 350 AWWA C-153 only).
 - 2. Flanged fittings are required at above ground applications and are to be appropriate to the service use and maximum working pressure of the fitting and be in accordance with AWWA C104, AWWA C110, flanged fittings, bolts, gaskets and installation.
 - 3. Flanged fittings to be provided with fullface black neoprene gaskets and 316 Stainless Steel bolts.
 - 4. Exterior of below grade fittings shall have factory applied bituminous coating, coal tar varnish or asphalt base paint, minimum one (1) mil thick.
 - 5. Interior of fittings shall be lined as specified for the pipe to which they are attached.

6. The exterior of all above grade fittings and ductile iron piping shall be coated in the following manner:

- a. Sandblast and remove all paint and any loose material in accordance with SSPC SP-10 (steel surfaces) or NAPF 500-03 (ductile iron surfaces). Sandblasting shall be performed using non-silica media. The firm applying the coating must be a licensed painting CONTRACTOR certified to installed the approved coating system. The CONTRACTOR shall use the following paint system.

TNEMEC

- | | | |
|----|--------------------|--|
| 1) | Primer: | TNEMEC-Chembuild #135
(3.0 to 5.0 mils DFT), aluminum color |
| 2) | Intermediate Coat: | TNEMEC-Chembuild #135
(3.0 to 5.0 mils DFT), off-white color |
| 3) | Finish Coat: | TNEMEC-Endura-Shield II #1074U
(with UV Blocker)
(2.0 to 3.0 mils DFT)
Color: Light Gray (32GR) |

Or approved equal.

Inspections are required after sandblasting and prior to application of the primer, after primer and after intermediate coat applications.

7. All flanged pipe shall be caulked between each flange and threads with Sika 1A urethane caulk.
8. Portions of the well casing in contact with the concrete pad shall be coated with coal-tar epoxy.
9. All nuts, bolts, and hardware shall be 316 Stainless Steel. Anti-galling compound, anti-seize lubricant shall be applied to the threads of all Stainless Steel bolts prior to installation. Anti-seize lubricant shall be graphite 50 anti-seize by Loctite Corporation, 1000 anti-seize paste by Dow Corning, or 3M lube and anti-seize.

B. Gate Valves (three [3] inches and larger)

1. Gate valves, unless otherwise specified or approved, shall be ductile iron body, resilient seat gate valves with mechanical joints conforming to the AWWA standard specifications for gate valves for ordinary water works service, designation C509, in so far as applicable. Wedge material to be EPDM. EPDM to be clearly stamped on wedge.

2. Gate valves shall be as manufactured by approved OWNER vendors.
3. Buried gate valves shall be non-rising stem type with two (2) inch square cast iron wrench nuts.
4. Face to face dimension shall conform to ANSI standard face-to-face and end-to-end dimensions of ferrous valves, (ANSI B16.10) for 125-pound cast-iron valves.
5. Hand wheels or chain wheels shall be turned counter clockwise to open the valves. Hand wheels shall be of ample size and shall have an arrow and the word "open" cast thereon to indicate the direction of opening.
6. Stuffing box follower bolts and nuts shall be 316 SS.
7. Where required, gate valves shall be provided with a box cast in a slab and a box cover.
8. Valves shall be Mueller gates valves, Model 2360.

C. Air Valves

1. The air valves shall be installed as shown on the drawings.
2. Air release valves (ARVs) shall be provided with a vacuum check to prevent air from re-entering the line.
3. Air Valves fittings shall be threaded.
4. One-inch ARV's shall be Val-Matic Model VM-15/38-S, with interior and exterior epoxy coating. ARV shall have a maximum operation pressure of 250 psi and shall include 316 SS internals and EPDM seat. ARV shall be equipped with vacuum check. ARV discharge piping shall be equipped with a PVC ball check valve. Discharging piping shall extend to 18 inches above the slab elevation and be equipped with a 316 Stainless Steel screen.
5. Two-inch Combination Air Valves shall be Val-matic Model VMC-202C, with interior and exterior epoxy coating, EPDM seat, and 316 Stainless Steel internals. Discharging piping shall extend to 18 inches above the slab elevation and be equipped with a 316 Stainless Steel screen. Valve shall have a maximum working pressure of 150 psi.

D. Check Valves

1. Check valve shall have cast iron body and be flanged style with 304 stainless steel seat, 304 stainless steel disc, 316 stainless steel spring and 316 stainless steel retaining screws. Check valves shall be globe style silent check valves as manufactured by Val-Matic, Pratt, or approved equal.
2. Check valves for the submersible well pumps shall be Techno Check valves manufactured by Cameron. Valves shall have a 316 Stainless Steel body, internal parts, and EPDM seals. Valves shall have a Certa-lok 316 Stainless Steel adapter grooved connection. The Contractor shall be responsible for supplying all 316 stainless steel fittings required to alleviate any conflict between the pump and the check valve.

E. Flow Switch

1. The check valve shall be installed with industrial flow switch. Flow Switch shall include 316 Stainless Steel Trip Stem and Paddles and shall include EPDM elastomeric seals. Process connections shall be of 316 Stainless Steel construction. Enclosures shall be NEMA 4 rated. Switches shall be rated for 250 PSI working pressure. Flow switches shall be U.L. listed. Flow switches shall be configured to shut off the pump when flow is restricted and send an alarm through SCADA.

Flow Switch shall be Taco Model IFSWS/W2 manufactured for use with 8" diameter pipe, or approved equal.

F. Pressure Gauge/Pressure Switch

1. The pressure gauge shall have be constructed of 316 Stainless Steel with a solid front conforming to ASME B 40.1, Grade 1A. The gauge shall be glycerin filled with a 4½ inch face and ¼-inch bottom port.
2. The pressure gauge shall be an Ashcroft, Type 1109.
3. The pressure switch shall have be a DPDT relay rated for 10 A at 120VAC. The accuracy shall be with two (2) percent of the span or better. The switch setpoint shall be fully adjustable over the entire span. The switch deadband shall be adjustable between five (5) percent and 15 percent of the trip point.

G. Ball Valves

1. The ball valves shall be threaded and have a 316 Stainless Steel body, ball, retainer, gland nut, and stem. The lever and grip shall be 316 Stainless Steel with a vinyl cover.

2. The ball valves shall be 96-100 Series as manufactured by Apollo Valves.

H. Mercer Couplings

1. Mercer couplings shall have a six (6) inch laying length and be constructed with an EPDM body. The split retaining ring, control rods, gusset plates, and all fasteners shall be constructed of 316 Stainless Steel.
2. The couplings shall be Vibra-Flex Style 150.

I. Valve Boxes

1. All buried valves shall have cast iron two (2) piece valve boxes with cast iron covers.
2. Valve boxes shall be provided with suitable heavy bonnets and will extend to an elevation at or slightly above the finished grade surface as directed by the ENGINEER.
3. The barrel shall be two (2) piece or three (3) piece, screw type, having a 5¼ inch shaft diameter.
4. Covers shall have "Water" or "Sewer", as appropriate, cast into the top.
1. All valves shall have actuating nuts extended to within 24 inches of the top of valve box cover.

J. Restrained Mechanical Joint Devices

1. Restrained mechanical joint devices for nominal pipe sizes three (3) inch through 48 inch shall consist of multiple gripping wedges incorporated into a follower gland meeting the applicable requirements of ANSI/AWWA C110/A21.10. Restraint devices shall be Listed by Underwriters Laboratories (3 inches through 24 inches inch size) and Approved by Factory Mutual (3 inches through 12 inches inch size).
2. Restraints shall be made of ASTM A536 ductile iron. Fasteners shall be 316 Stainless Steel.
3. Restrained mechanical joint glands shall be Megalugs as manufactured by Ebaa Iron or One Loks as manufactured by Sigma.

K. Butterfly Valves (Flow Control Valves)

1. Butterfly Valve shall be flanged AWWA butterfly valves. All valves shall be suitable for use with ANSI class 125 or 150 flanges. Valve shall provide bi-directional drip-tight shut-off at 200 psi with 316 Stainless Steel disc and shaft.
2. Body shall be ductile iron.
3. Discs shall be offset to provide an uninterrupted 360-degree seating edge and shall be 316 Stainless Steel. The disc and shaft connection shall be splined.
4. EPDM seats shall fully line the valve body and be permanently bonded. Seats shall have integral flange seals so flange gaskets are not required.
5. Shafts shall be one (1) piece 316 Stainless Steel. Shaft diameters shall meet the AWWA C504, class 75B standard. Multiple shaft seals shall be provided to prevent leakage.
6. Three (3) shaft bearings made of heavy-duty aluminum bronze shall be provided to ensure smooth, reliable valve operation.
7. A hand-wheel actuator shall be provided and shall have adjustable open and closed position stops. Operating shaft to be supported axially and radially at the input end by permanently lubricated thrust and bearing sleeves.
8. A two (2) year warranty shall be provided for all valves and actuators.
9. All hardware shall be 316 SS.
10. Butterfly valves shall be as manufactured by Bray, Jamesbury, Keystone Valves, or approved equal.

L. Dismantling Joints

1. Provide couplings where indicated.
2. The CONTRACTOR will not be allowed to substitute any other type of coupling in lieu of the couplings as specified herein unless approved by the ENGINEER.
3. The coupling shall be rated as indicated.
4. Construction:
 - a. Coupling bodies shall be fabricated from steel, ASTM A512 – Cold-Drawn butt-weld Carbon Steel Mechanical Tubing or A513 –

Electric-Resistance Welded Carbon and Alloy Steel Mechanical Tubing with steel bolts, without pipe stop.

- b. Provide flanges in conformance with AWWA C207.
 - c. Couplings shall be of sizes to fit the indicated pipe and fittings.
 - d. The body shall be not less than ¼" thick or at least the same wall thickness as the pipe to which the coupling is connected.
 - e. If the strength of the body material is less than the strength of the pipe material, the thickness of the middle ring shall be increased to have the same strength as the pipe.
 - f. The follower flange shall be fabricated from steel, ASTM A576 – Steel Bars, Carbon, Hot-Wrought, Special Quality or AISI C1012.
 - g. Gaskets shall be EPDM. The shape of the follower shall be of such design as to provide positive confinement of the gasket.
 - h. All hardware shall be 316 SS with anti-galling.
 - i. Buried couplings shall be epoxy-coated at the factory as indicated.
5. Approved Manufacturers, or equal:
- a. Smith-Blair, Model 975
 - b. Dresser, Model 131
 - c. JCM, Model 309

PART 3 - EXECUTION

NOT USED

END OF SECTION

SECTION 02820

CHAIN LINK FENCE

PART 1 – GENERAL

1.01 DESCRIPTION

This work consists of all labor, materials, and equipment necessary for furnishing and installing chain link fence, gates, temporary fencing and screening, and accessories in conformance with the specifications, drawings, and details.

1.02 RELATED SECTIONS

- A. All of Division 1.
- B. **Section 02210 – Grading.**
- C. **Section 03700 – Concrete Work.**

1.03 REFERENCES

- A. ASTM F668, Standard Specification for PVC-Coated Steel Chain Link Fence Fabric.
- B. ASTM F900, Standard Specification for Industrial and commercial Swing Gates.
- C. ASTM F1083, Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated .Welded for Fence Structures.
- D. ASTM F567, Standard Practice for Installation of Chain-Link Fences.
- E. ASTM F626 Standard Specification for Fence Fittings.

1.04 SUBMITTALS

- A. Submit manufacturer's data for fabric, posts, gates, and all other materials, finishes, and appurtenances.
- B. Submit shop drawing showing dimensions of materials and layout of posts and gates.
- C. Submit temporary fencing and screening plan.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Match, style, finish, and color of each fence component with that of other fence components. All fence components shall be black, PVC coated.

2.02 CHAIN LINK FENCE FABRIC

- A. Fence fabric shall be black, PVC coated galvanized fabric conforming to STM F668, Class 1 or 2a with a minimum thickness of five (5) mm.
- B. Fence height shall be 96 inches.
- C. Core wire gauge shall be No. 9 prior to vinyl coating.
- D. Link patten shall be two (2) inch diamond mesh.
- E. Loops of knuckled selvages shall be closed or nearly closed with space not exceeding diameter of wire
- F. Wires of twisted selvages shall be twisted in a closed helix three full turns and cut at an angle to provide sharp barbs that extend a minimum of ¼-inch beyond the twist.
- G. Fencing shall be slatted.

2.03 POSTS

- A. Strength and stiffness requirements shall meet ASTM F1043, except as modified in this section. The steel shall meet the requirements of ASTM F1083.
- B. The post length shall be the manufacturer's standard with an allowance for a minimum of 36 inches of embedment below finished grade.
- C. Protective coating shall be a zinc coating applied to the internal and external portions of the post meeting the requirements of ASTM F1043, Type A.
- D. Color coating shall be applied over the zinc coating a minimum of 10 mils in thickness and matching the color of the chain link fabric.
- E. Line posts shall have an outside diameter of 2½-inches and a minimum weight of 2.96 pounds per foot.
- F. End, corner, angle, and pull posts shall have an outside diameter of three (3) inches and a minimum weight of 4.69 pounds per foot.

- G. Gates posts shall have an outside diameter of four (4) inches and a minimum weight of 4.85 pounds per foot.

2.04 TOP RAILS AND BRACE RAILS

- A. Rails shall be manufactured from galvanized steel pipe.
- B. The protective coating and color coating shall match the coating applied to the posts.
- C. The rails shall have an outside diameter of 1 $\frac{5}{8}$ and a minimum weight of 2.27 pounds per foot.

2.05 FENCE FITTINGS

- A. Post and line caps shall be designed to accommodate passage of top rail through cap.
- B. The protective coating and color coating shall match the coating applied to the posts.
- C. Tension and brace bands shall be vinyl clad.
- D. Truss rods assemblies shall be $\frac{3}{8}$ -inches in diameter.

2.06 TENSION WIRE

- A. Tension wire shall be zinc-coated steel marcelled tension wire confirming to ASTM A824, Type II, Class 2.
- B. The protective coating and color coating shall match the coating applied to the posts.

2.07 GATES

- A. Gates shall have welded steel joints with coated with zinc-based paint.
- B. The protective coating and color coating shall match the coating applied to the posts.
- C. The chain link fabric shall be attached to the gate frame a maximum of every 15 inches.
- D. Hinges shall be 180-degree commercial duty.

2.08 PVC VERTICAL SLATS

- A. The slats shall be black in color, made of UV-resistant PVC, and installed vertically the entire height of the fence.

2.08 TEMPORARY FENCING AND SCREENING

- A. Fence height shall be 72 inches.
- B. Temporary screening shall be provided with temporary fencing and may consist of non-transparent fabric or PVC vertical slats which provide a visual barrier of all fenced area.
- C. Signage shall be provided and attached to temporary fencing and shall include project emergency contact information.

PART 3 – EXECUTION

3.01 GENERAL

- A. Install chain link fences and gates in accordance with ASTM F567, except as modified in this Section.
- B. Provide necessary hardware for a complete fence and gate system.

3.02 POST SETTING

- A. Driven posts are not acceptable.
- B. Post hole depth shall be a minimum of three feet below finished grade.
- C. Post holes shall be backfilled with concrete to two (2) inches above finished grade. The concrete shall have a crown to divert water away from the post. Where posts come in contact with concrete, they shall be coated with Koppers 300M or approved equal.

3.03 GATE INSTALLATION

- A. Hang gates and adjust hardware so gates operate satisfactorily from both the open and closed positions and all latches operate freely.

3.04 FIELD QUALITY CONTROL

- A. Demonstrate to the ENGINEER proper operation of the gates from both the open and closed position prior to final acceptance.

END OF SECTION

SECTION 02936

SODDING

PART 1 – GENERAL

1.01 PERFORMANCE

- A. Section generally defines CONTRACTOR's responsibilities, unless otherwise indicated for the following:
 - 1. Preparation of subsoil.
 - 2. Placing topsoil.
 - 3. Fertilizing.
 - 4. Sod installation.
 - 5. Maintenance.

1.02 RELATED SECTIONS

- A. All of Division 1.
- B. **Section 02210 – Grading.**

1.03 REFERENCES

- A. FDOT - Florida Department of Transportation - Standard Specifications for Road and Bridge, Latest Edition.

1.04 QUALITY ASSURANCE

- A. Sod Producer: Company specializing in sod production and harvesting with a minimum five (5) years of experience and certified by the State of Florida.
- B. Installer: Company approved by the sod producer.
- C. Sod: Minimum age of 18 months, with root development that will support its own weight, without tearing, when suspended vertically by holding the upper two (2) corners.
- D. Submit sod certification for grass species and location of sod source.

- E. The ENGINEER reserves the right to test, reject or approve all materials before application.

1.05 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site under provisions of **Section 01600 – Material and Equipment.**
- B. Store and protect products under provisions of **Section 01600 – Material and Equipment.**
- C. Deliver sod on pallets. Protect exposed roots from dehydration.
- D. Do not deliver more sod than can be laid within 48 hours.
- E. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.
- F. The CONTRACTOR shall furnish the ENGINEER invoices of all materials received in order that the minimum application rate of materials may be determined.

1.07 MAINTENANCE SERVICE

- A. Maintain sodded areas immediately after placement until grass is well established and exhibits a vigorous growing condition.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Sod:
 - 1. Sod shall be ASPA approved grade, Argentine Bahia, Tifton Bermuda, Floritam, or St. Augustine to match existing or better as directed, with firm texture having a compacted growth and good root development.
 - 2. Sod shall be absolutely true to varietal type, and free from weeds or other objectionable vegetation, fungus, insects and disease of any kind.

3. Cut sod in area not exceeding 24 inches by 24 inches with minimum one inch and maximum three inch of topsoil base.
 4. The sod shall be planted as soon as possible after being harvested and shall be shaded and kept moist from the time of harvesting to the time it is planted.
- B. Topsoil:
1. Excavated from site and free of weeds.
 2. Topsoil to be minimum three (3) inches thick.
- C. Fertilizer:
1. In accordance with FDOT 982-1.
- D. Water:
1. Clean, fresh, and free of substances or matter, which could inhibit vigorous growth of grass.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Verify that prepared subsoil is ready to receive the work of this Section.

3.02 FERTILIZING

- A. Apply fertilizer in accordance with manufacturer's instructions.
- B. Apply after smooth raking of topsoil and prior to installation of sod.
- C. Apply fertilizer no more than 48 hours before laying sod.
- D. Mix thoroughly into upper two (2) inches of topsoil.
- E. Lightly water to aid the dissipation of fertilizer.

3.03 LAYING SOD

- A. Moisten prepared surface immediately prior to laying sod.

- B. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces.
- C. Stake sod with 1x2 stakes on all areas with slopes greater than one (1) vertical to five (5) horizontal.
- D. Coordinate sod installation with irrigation system components.

3.04 MAINTENANCE

- A. Water to prevent grass and soil from drying out.
- B. Immediately replace sod in areas, which show deterioration or bare spots.

3.05 APPROXIMATE AREA TO BE SODDED

- A. All construction areas disturbed by construction of the project except those areas receiving pavement or rock. CONTRACTOR is to take into account his anticipated ditch width and pit sizes at the surface when accounting for the cost of this work.

END OF SECTION

DIVISION 3

WELL CONSTRUCTION AND CONCRETE WORK

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SECTION 03000

WELL CONSTRUCTION SEQUENCE

PART I GENERAL

1.01 SCOPE OF WORK

- A. This section covers the sequence of work for replacement of surficial aquifer production well 14 for the Village of Palm Springs located in Palm Springs, Florida.
- B. The well construction work as specified includes but is not limited to plugging and abandonment of existing well, pilot hole drilling, mud rotary/reverse air drilling of boreholes, setting of casings and well screen, grouting, gravel pack emplacement, well logging, video logging, pump testing, formation water disposal system (including temporary piping and pumps), well facility disinfection, and restoration of well site, as described herein and as shown on the drawings.
- C. Construction details for the existing production well are presented in Part III, Section 3.02, below.
- D. All existing as-builts are included in the Project Drawings. The CONTRACTOR is responsible for pre-bid inspection of the well site facility in order to review existing conditions for bidding purposes.
- E. Discharge water generated during construction activities shall be discharged to the CONTRACTOR's Formation Water Disposal System and then to the outfall location as shown on project drawings. Settling and treatment of formation water to be discharged is the CONTRACTOR's responsibility and shall be in accordance with all applicable regulations and **Section 05000 – Formation Water Disposal System**.
- F. Following completion of construction activities, the CONTRACTOR shall perform disinfection and bacteriological testing as required for well clearance. Substantial completion will be deemed complete following restoration of operational service of the subject well.

PART II PRODUCTS

(NOT USED)

PART III EXECUTION

3.01 CONSTRUCTION SCHEDULE

- A. The CONTRACTOR shall complete the scope of work within the timeframe specified in the contract.
- B. The construction schedule shall be met based on day work (M-F, 7 AM – 7 PM; with no noise between 6 AM – 7 AM, 6 PM – 7PM) only and excludes nights, weekends, and Palm Beach County and Federal holidays.
- C. The CONTRACTOR shall obtain approval from the OWNER for all 24-hour work excluding weekends and Federal holidays. Requests for 24-hour work shall be submitted as outlined in **Section 03100 – Well Drilling**.

3.02 CONSTRUCTION SCOPE OF WORK

The anticipated well construction depths for well casing, riser, and screen are outlined in the table below.

WELL	Well 14 (Reconstructed)
Surface Casing	30" STL
Surface Casing Depth	40'
Intermediate Casing	24" SCH 40 PVC
Intermediate Casing Depth	120'
Riser Casing	16" SDR 17 PVC
Riser Casing Depth	120'
Screen Interval	120'-200' (316 SS)
Total Depth	200'

3.03 DESCRIPTION OF EXISTING PRODUCTION WELL

- A. The reported original well construction details are provided below:

WELL	Well 14 (Existing)
Surface Casing	--*
Surface Casing Depth	--*
Outer Casing	20"
Outer Casing Depth	--*
Casing	--*
Casing Depth	183'
Screen Interval	183'-288'
Screen Slot Size	--*
Total Depth	288'

*-- indicates material/depth unknown

Well construction details were supplied from Table A.

3.04 CONSTRUCTION SEQUENCE

The Construction Sequence for the well is outlined in the work items below.

A. GENERAL WORK ITEMS

- 1.0 Mobilize to the OWNER approved well site and prepare for well construction activities. Coordinate the work with OWNER. Set up construction and support equipment within the OWNER controlled area of the well site as shown on Project Drawings. The CONTRACTOR shall coordinate with the OWNER regarding available laydown and staging areas. Access to the well site and work areas shall be limited to the areas shown on the project drawings and as discussed in the pre-construction meeting.
- 2.0 The CONTRACTOR shall remove external piping, fittings, valves, pipe and pump and shall disposed or return if requested by the OWNER as salvage. A blank salvage form is included in the contract documents for reference.
- 3.0 Protect and secure the well site. During the period of the contract, the CONTRACTOR will protect all well appurtenances removed by the CONTRACTOR; protect all remaining improvements; and protect any equipment loaned to the CONTRACTOR by the OWNER.
- 4.0 The CONTRACTOR shall take special precautions to reduce to a minimum the nuisances and damage to property which could result from working in a residential area. Any damage to public or private property shall be immediately repaired or paid for by the CONTRACTOR at no expense to the OWNER. During the period of the contract, the CONTRACTOR will protect the well site and well improvements. If the CONTRACTOR becomes aware of any faulty or damaged OWNER equipment, CONTRACTOR shall notify the OWNER immediately.
- 5.0 The CONTRACTOR shall prepare the Formation Water Disposal System in accordance with **Section 05000**. The CONTRACTOR is solely responsible, by any and all methods necessary, to meet the requirements of discharge of water. If the CONTRACTOR fails to fulfill proper requirements of discharge water or damage caused by discharge of water, the CONTRACTOR is responsible for complete restoration of the discharge location to the original condition at no cost to the OWNER.

B. PROFILE HOLE DRILLING SEQUENCE

- 1.0 Drill a nominal 6-inch diameter profile well to a depth of approximately 250 feet below land surface using the mud rotary method. The profile well will be drilled adjacent to the production well as approved by the ENGINEER. Formation samples shall be collected by the CONTRACTOR every 5 feet, at a minimum, or as otherwise specified by the ENGINEER.

- 2.0 Prepare the profile well for geophysical logging by circulation of the drilling fluids until uniform and free of drill cuttings. A geophysical logging suite shall be conducted by the CONTRACTOR and shall include Dual Induction log; Natural gamma log; Spontaneous potential log; Caliper log; Fluid Resistivity log. The CONTRACTOR may set a temporary surface casing to facilitate drilling the profile well. The CONTRACTOR will determine the setting depth of the temporary surface casing.
- 3.0 Following completion of geophysical logging, the CONTRACTOR shall install a continuous casing string of approximately 250 feet of 2-inch diameter casing and 10 feet of 0.020-inch slot well screen. Casing construction, assembly and installation will be in accordance with **Section 03200 – Well Casing**. CONTRACTOR will then install gravel pack in the annular space between the casing, screen, and the borehole. Gravel shall be placed using only the tremie method from the base of the well screen to land surface. Gravel pack shall be as described in **Section 03600 – Well Screen Gravel**. Gravel will be added as needed to support the casing and fill the borehole as it is pulled to shallower depths.
- 4.0 Develop the well using airlift method until turbidity is lowered to an acceptable level for collecting a water sample as determined by the ENGINEER and in accordance with **Section 03500 – Well Development**. The CONTRACTOR shall provide a test/sampling pump to allow for representative water samples to be collected by the ENGINEER and OWNER.
- 5.0 Upon completion of development and sampling, raise casing and screen to a depth directed by ENGINEER. Develop and sample as described above. This procedure will be repeated up to 8 times, as determined by the ENGINEER.
- 6.0 Upon completion of the profile well sampling, CONTRACTOR shall remove the test well and plug and abandon the borehole in accordance with applicable regulations.
- 7.0 A minimum 7 working days from the submittal of the profile hole geophysical logging shall be allowed for the ENGINEER review and selection of casing depths and completion intervals.

C. REPLACEMENT WELL CONSTRUCTION SEQUENCE

- 1.0 Mobilize to the existing well site and plug and abandon existing well, fill and compact existing well site in accordance with Contract Documents and as shown on project drawings. Prior to pumping grout, the total depth will be measured by the CONTRACTOR and reported to the ENGINEER. Plug and abandonment shall be in accordance with **Section 03800 – Well Abandonment**.
- 2.0 Prepare for well construction activities. Set up drilling rig and support equipment within the area shown on the project drawings or as approved by the ENGINEER.

- 3.0 Drill, furnish, install, and cement in place approximately 40 feet of 30-inch diameter steel surface casing having a minimum wall thickness of 0.375 inches. Welded casings will be straight and true of alignment to the satisfaction of the ENGINEER. Casings shall have machine-cut beveled ends and shall be arc welded together by the standards of the American Welding Society. Installation and grouting shall be in accordance with **Section 03200 – Well Casing** and **Section 03400 – Annular Grout**.
- 4.0 Drill the nominal 28-inch diameter borehole using the mud rotary method. The depth of the borehole is outlined in the table above in Part III Execution, 3.02 Construction Scope of Work. A staged bit shall be used that includes an 8-inch diameter lead bit placed below the reaming bit assembly. Prepare the borehole for casing installation by circulating the drilling fluid until all drill cuttings have been removed. Drilling shall be performed in accordance with **Section 03100 – Well Drilling**.
- 5.0 Perform geophysical logging (Caliper Log/Gamma Ray) of the nominal 28-inch diameter borehole prior to casing installation in accordance with **Section 03300 – Geophysical and Video Logging**.
- 6.0 Furnish and install a continuous casing string of 24-inch diameter (O.D.), Schedule 40 PVC casing. The depth of the well casing is outlined in the table above in Part III Execution, 3.02 Construction Scope of Work. Casing construction, assembly and installation will be in accordance with **Section 03200**.
- 7.0 Grout the annular space between the 24-inch diameter PVC casing and the borehole and 30-inch diameter surface casing with neat cement in accordance with **Section 03400**. Allow grout to cure for a minimum 48 hours before resuming drilling operations.
- 8.0 Drill a nominal 22-inch diameter borehole using the reverse air drilling method. The depth of the borehole shall be measured from the base of the 24-inch diameter PVC casing and as outlined in the table above in Part III Execution, 3.02 Construction Scope of Work.
- 9.0 Reverse air drilling will be performed in accordance with **Section 03100**. Clear water, with an available chlorine residual not less than 50 ppm shall be added to the well until there is sufficient formation water for drilling. Flow tests and water sampling will be performed every 10 feet during reverse air drilling. Flow tests during drilling will be performed using the reverse air water discharge through the drill string. Flow tests will be conducted in accordance with **Section 03100**.
- 10.0 If subsurface conditions are such that the use of reverse air drilling to complete the 22-inch diameter borehole is not possible, the CONTRACTOR shall switch, with prior ENGINEER approval, to the reverse mud or mud rotary method to drill the remainder of the borehole.

- 11.0 Perform geophysical logging (Caliper Log/Gamma Ray) of the nominal 22-inch diameter borehole prior to casing/screen installation in accordance with **Section 03300**.
- 12.0 Furnish and install 16-inch diameter, 316 stainless steel continuous slot well screen and 16-inch diameter Johnson SDR17 PVC riser casing. The riser casing/well screen lengths are outlined in the table above in Part III Execution, 3.02 Construction Scope of Work. The top of the screen shall be fitted to the 16-inch diameter Johnson SDR17 PVC riser casing which shall be continuous up to land surface. Screen and riser casing construction, assembly and installation will be in accordance with **Section 03200** and **Section 03600**.
- 13.0 Furnish and install gravel pack in the annular space between the well screen and the borehole/well casing. Gravel pack sample and grain size analysis shall be submitted by the CONTRACTOR for approval by the ENGINEER. Gravel shall be placed using the tremie method and continually flushed with water and an approved bentonite mud thinner to a depth above the top of the screen as indicated in project drawings and in accordance with **Section 03600**.
- 14.0 Develop the well using a combination of compressed direct airlift development, high velocity water jetting with simultaneous airlift development, and pump development. Initial development shall be performed using air lift alone to stabilize the gravel pack. Following initial airlift shall be high velocity water jetting with simultaneous airlift. After the gravel pack has stabilized, perform pump development until the well meets development criteria for sand and silt content as approved by the ENGINEER. All well development shall be performed in accordance with **Section 03500**.
- 15.0 If requested by the ENGINEER, acidize the well in accordance with **Section 04400 - Acidization**. Acid treatment may occur before, during, or after development pumping or development jetting if required by the ENGINEER. The acid treatment header shall be constructed and set up as shown on project drawings.
- 16.0 Install a test pump with a minimum of 80 feet of pump column and develop the well until the discharge water is free of cuttings and visible sediment in accordance with **Section 03500**. The CONTRACTOR provided test pump shall be capable of a variable discharge rate with sustained surges up to 2,000 gpm. Development shall be in accordance with **Section 03500** and shall continue to the satisfaction of the ENGINEER.
- 17.0 Conduct a (8) hour step rate specific capacity pumping test at variable rates to measure drawdown and well efficiency. A pressure transducer/data logger setup shall be used to measure the static water level and pumping water levels. Water level measurement below the wellhead shall be performed using an electric water level tape and the data logger/transducer setup as describe in **Section 04000 – Pumping Tests**. Perform water quality sampling in accordance with **Section 04200 – Disinfection WQ Sampling**.

- 18.0 Perform a down hole camera video log of the casing and screen interval. Video log shall be in accordance with **Section 03300**.
- 19.0 If fill is encountered during the final well video, the CONTRACTOR shall remove the fill at no additional cost to the OWNER.
- 20.0 Perform well disinfection as described in **Section 04200**.
- 21.0 Restore the well and the site as described in Contract Documents and Project Drawings. The well shall be left clean and free of oils, grease, and all other substances used during CONTRACTOR activities. Replace and restore damaged sod until established. All areas, structures and facilities disturbed by the CONTRACTOR's activities shall be restored by CONTRACTOR to equal or better condition than prior to CONTRACTOR's work.

END OF SECTION

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SECTION 03100

WELL DRILLING

PART I - GENERAL

1.01 SCOPE OF WORK

- A. This section covers the work, materials, and equipment necessary for drilling the borehole for the rehabilitation well.

1.02 SUBMITTALS

- A. A list of any drilling additives intended for use on this project shall be submitted to the ENGINEER prior to drilling activities.
- B. A list of drilling equipment to be used on this project shall be submitted to the ENGINEER prior to mobilization, including drill bit diameters and dimensions of staged bit assemblies proposed for drilling. Alternative methods for removal of existing well screen and riser casing and/or cleaning of the borehole to total depth may be submitted to the ENGINEER by the CONTRACTOR.
- C. Drilling fluid solids management system specifications, joint compound, mud pump type and pump curve, and anticipated up-hole velocities during drilling shall be submitted to the ENGINEER.
- D. All chemicals, fluids, and additives introduced into the well shall be NSF certified and shall be applied and used as recommended by the manufacturer.

PART II - PRODUCTS

2.01 EQUIPMENT

- A. All equipment shall be in good working condition and suitable for the proposed work. Prior to mobilization, a list of drilling equipment to be used on the project is to be submitted to the ENGINEER. The CONTRACTOR shall provide assurances that he has the proper equipment to adequately complete the project and overcome possible complications.
- B. The OWNER shall reserve the right to inspect the equipment of each CONTRACTOR submitting a bid as a part of the evaluation of bids.
- C. The CONTRACTOR shall provide all tools, bits, and all other necessary equipment for drilling.

- D. The CONTRACTOR shall use a drilling rig having a hook load capacity of no less than 150,000 pounds to perform the scope of work contemplated herein.
- E. Drilling equipment shall be capable of performing mud rotary, reverse air, and reverse mud drilling methods within the established time of construction. The method of drilling is outlined in the well construction sequence for each well casing string.
- F. During drilling within any PVC casing, the CONTRACTOR shall fit rubber protective bumpers to each drill pipe within the casing. The bumpers shall be located adjacent to tool joints.
- G. All equipment shall be in accordance with local noise ordinances and OWNER'S requirements for the applicable working hours. The CONTRACTOR shall be required to keep within noise requirements during all phases of the work. This shall include use of hospital-grade mufflers on equipment (as appropriate) to comply. Noise abatement may require acoustical sound barrier wall, enclosures, or other means to minimize noise. Noise control and compliance are the sole responsibility of the CONTRACTOR.
- H. The CONTRACTOR shall take special precautions to reduce to a minimum the nuisances and damage to property. Any damage to public or private property will be immediately repaired or paid for by the CONTRACTOR at no expense to the OWNER. Equipment, tools, and materials will be located in places where they will produce a minimum of nuisance. CONTRACTOR shall take appropriate action to minimize noise, light, vibration, and other nuisances caused by the drilling operation. The appropriate warning signs shall be posted on the streets and the appropriate police will be informed of the location of the construction site.

2.02 DRILLING FLUID

- A. The CONTRACTOR shall provide all drilling fluids, water, and additives as required. Any water added to the well shall have a minimum chlorine residual of 50 ppm. All chemicals, fluids, and additives introduced into the wells shall be NSF certified and shall be applied and used as recommended by the manufacturer.

2.03 TEST AND SAMPLING EQUIPMENT

- A. Provide equipment for measuring drilling fluid properties including a marsh funnel, viscosimeter, filter press, and a fluid density balance.
- B. Provide sampling bags or containers for collection and storage of formation samples.

PART III - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Notify the ENGINEER 7 days prior to drilling. The construction schedule shall be met based on day work only (M-F, 7 AM – 7 PM; with no noise between 7 AM – 8 AM, 6 PM – 7PM) and excludes nights, weekends, and Palm Beach County and Federal holidays.
- B. The CONTRACTOR shall obtain approval from the OWNER for all 24-hour work excluding weekends and Federal holidays. Should the CONTRACTOR desire to carry on his work at night or outside regular working hours, they shall submit written notice to the OWNER/ENGINEER and allow a minimum of 48 hours for satisfactory arrangements to be made and for inspecting the work in progress. No night work shall be permitted except as specifically authorized by the OWNER or ENGINEER on a case-by-case basis.
- C. Provide at all times a thoroughly experienced, competent, and SFWMD licensed water well driller during all operations at the drill site. Provide sufficient competent driller's helpers during all operations at the drill site.
- D. The CONTRACTOR shall maintain all slopes and prevent erosion. Measures taken to prevent erosion shall include but not be limited to the use of silt fences, hay bales, silt screens in surface water and containment dikes to prevent runoff.

3.02 DRILLING/CLEAN OUT OF BOREHOLE

- A. Existing estimated borehole depths and diameters for the surficial aquifer production well are depicted on the drawings and in project documents. Borehole diameters are considered nominal dimensions. The CONTRACTOR shall recommend the appropriate bit size for correct drilling/cleaning out of the borehole diameter. Borehole depths provided in the specifications are estimates only; actual depths may vary and will be determined by the preliminary geophysical logging.
- B. Boreholes shall be advanced in such a manner that the drilled hole will proceed straight and plumb. The drilling rate shall be optimized for cuttings removal with minimal mixing and accurate formation sample collection. Pilot boreholes shall be advanced in 5-foot increments for more accurate sample collection. Cuttings shall be predominantly cleared from the borehole at the end of each increment (5-foot increments for pilot holes and reverse air drilled holes, 20-foot increments for reamed holes).
- C. Boreholes shall be drilled and conditioned to permit geophysical logging and casing installation as per **Section 03300 – Geophysical and Video Logging** and **Section 03200 – Well Casing**. The borehole shall be cleared of cuttings and stable to permit subsequent tasks to be completed without impairment.

- D. The reaming assembly shall consist of a lead bit with the same outer diameter as the pilot hole and progressively larger diameter bits up to the reamed hole diameter. The reaming assembly should not exceed 2 feet in length below the largest diameter bit.
- E. Drilling of the production interval or cleaning out of the borehole will be performed using the reverse air method. When reverse air is not possible, the reverse mud method may be used with prior ENGINEER approval. Conventional mud-rotary drilling is not permitted when drilling the production interval. Boreholes shall be advanced in such a manner that the drilled hole will proceed straight and plumb. Boreholes shall be drilled and conditioned to permit geophysical logging and casing/screen installation. The borehole shall be cleared of cuttings and stable in order to permit subsequent tasks to be completed without impairment.

3.03 DRILLING FLUIDS AND SETTLING TANKS

- A. All drilling fluid storage tanks shall be above ground. Dug mud pits will not be permitted. Tanks shall be of sufficient length and construction to allow settling or removal of cuttings and prevent their reintroduction to the borehole. A mud system shall be used that includes a vibratory shale shaker and centrifugal desanders. Mud tanks shall be of sufficient length and construction to allow settling or removal of cuttings and prevent their reintroduction to the borehole.
- B. During drilling, settled solids shall be physically removed from the tanks on a weekly basis, or more frequently, and the mud (if applicable) shall be reconditioned as needed. During reverse air drilling, all settled solids shall be removed from the tanks at the beginning of each working day.
- C. The CONTRACTOR shall routinely monitor and record drilling fluid properties including mud weight, viscosity, gel strength, pH, and liquid and solids content. Monitoring shall be in accordance with manufacturer's recommendations, AWWA, and International Association of Drilling Contractors (IADC). The mud and solids management systems used by the CONTRACTOR for this project shall meet the CONTRACTOR's proposed drilling fluid manufacturer specifications for the intended application.
- D. The CONTRACTOR shall provide ample settling tanks at the well site to settle solids prior to discharge. The settling tanks shall be used to reduce turbidity of the discharge so that water discharging to the outfall location meets the criteria required for discharge to surface water bodies in accordance with **Section 05000 – Formation Water Disposal System**.
- E. Drilling fluids shall not be discharged to the ground surface at the drilling site.

- F. A pump that is capable of pumping all flow test water shall be fitted between the well and the settling tanks. The pump shall be sized such that the rate of the pumped flow is equal or greater to the flow test flow. If multiple tanks are needed for settlement of solids, then multiple pumps shall be used as necessary to move water through the tank system. A pump shall be capable of discharging water from the settling tanks to the outfall location.

3.04 ALIGNMENT REQUIREMENTS

- A. Pilot holes and reamed holes shall be drilled round and straight throughout.
- B. The completed well will be sufficiently plumb and straight so that there will be no interference with installation, alignment, operation, or future removal of the permanent well pump.

3.05 COMPLIANCE WITH GOVERNMENTAL REGULATIONS

- A. Construct the well in strict conformance with all laws, rules, regulations, and standards related to the construction of wells in the State of Florida and local regulatory agencies.

3.06 FORMATION SAMPLES

- A. One (1) set of representative formation samples shall be collected by the CONTRACTOR at specified intervals from the present total depth of the well to the new total depth. Samples shall be taken at each 5-foot level and each change in formation or material type. The method must yield samples that are representative of the actual depth to which drilling has progressed.
- B. Each sample shall be approximately 8 ounces and be placed in a cotton, soil sample bag, Hubco or equivalent, or as approved by ENGINEER. Each sample shall be labeled with the date, well identification, and depth from which the sample was taken clearly marked on the container in indelible ink. The CONTRACTOR will store and protect the samples from damage or disturbance until they have been released to and accepted by the ENGINEER.

3.07 WATER SAMPLES

- A. The CONTRACTOR shall supply new 500 mL HDPE sample bottles and collect water samples during reverse air drilling. A fixed, safe, accessible location to collect samples must be provided to the satisfaction of the ENGINEER. Samples shall be collected from the point of discharge at every ten-foot interval. Sample bottles shall be labeled with well number, depth, date, and time collected.

- B. The CONTRACTOR shall prevent additives during the drilling process from affecting water samples collected from the reverse air discharge point.
- C. The water column in the well shall be periodically purged to obtain representative water samples. The ENGINEER shall determine when the well is to be purged.

3.08 DRILLING LOGS

- A. Prepare a daily drilling log for inspection and submittal to the ENGINEER. Include in the log the depths and type of geologic formation encountered; drilling penetration rate, in minutes, for each 5-foot interval; general formation hardness based on drilling; type of drilling, chemical, water and mud additives; loss of circulation zones; additives to the well to control flow; water added to supplement reverse air drilling; problems during drilling; date, time, and depth for each entry. The log shall be kept current with a copy located at the drill site. The CONTRACTOR shall maintain an up to date drill string tally that will be available for inspection by the ENGINEER.
- B. A final well log shall be prepared that includes copies of the above. An as-built drawing of the well shall be submitted showing casing and borehole dimensions and details.
- C. Submittals will be made as required to the appropriate regulatory agencies per the applicable local, State, and Federal regulations. The CONTRACTOR will provide copies of all submittals to the ENGINEER.

3.09 COMPLIANCE WITH GOVERNMENTAL REGULATIONS

- A. Construct the well in strict conformance with all laws, rules, regulations, and standards related to the construction of wells in the State of Florida and local regulatory agencies.

3.10 WASTE DISPOSAL

- A. All solid and liquid waste, including but not limited to drilled solids, cuttings, drilling mud, drilling additives, spent or unused chemicals and unused products shall be disposed of or recycled by the CONTRACTOR in an environmentally responsible manner and in accordance with applicable regulations. The disposal or recycling location must be identified in a submittal to the ENGINEER. Prior to disposal, the location must be accepted by the ENGINEER. The CONTRACTOR shall prevent wastes from migrating from the designated construction area and cuttings storage area. The CONTRACTOR shall promptly clean up drilling by-products that migrate outside of the designated construction area. Further, the CONTRACTOR will minimize the spillage of formation water at all times and promptly repair leaks where formation water may be released to the ground surface.

- B. Remove from the drilling site all cuttings and other material removed by the drilling operations that are not required to complete the work. Solid material shall be disposed of in accordance with local and State regulations at an approved disposal site, approved by the ENGINEER. Removal of cuttings, mud, and formation water from the site is considered incidental to the Work and does not constitute additional payment to the CONTRACTOR.
- C. Depressions left in the land surface from the cleanup of residues, or for any other reason resulting from the CONTRACTOR's activities, shall be filled with clean fill material and graded smoothly.

END OF SECTION

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SECTION 03200

WELL CASING

PART I GENERAL

1.01 SCOPE OF WORK

This section covers the work, equipment, and materials necessary for furnishing and installing the well casing(s).

1.02 SUBMITTALS

- A. Provide manufacturers specifications and technical data on all casing to be provided for installation in the well.

PART II PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. All casings shall be approved for use in municipal public supply wells, and to the specifications as outlined. Casing material and dimensions are provided in **Section 03000 – Well Construction Sequence** and illustrated in the project drawings. Surface casings shall be constructed of carbon steel. The CONTRACTOR shall furnish, satisfactorily install, and grout each string of casing. All casings shall be new, unused and in good physical condition. Warped or damaged casing shall be rejected.
- B. The Contract provides an estimate of the amount of casing. The OWNER or the ENGINEER shall determine actual lengths based on drilling results. The CONTRACTOR shall be responsible for ensuring that the selected casing shall withstand all stresses of construction without impairment.
- C. The CONTRACTOR shall provide the ENGINEER with an inventory of all casing delivered to the site and maintain a tally during installation.
- D. Production well casings shall include: steel 30-inch diameter surface casing; schedule 40 PVC 24-inch diameter intermediate casing; riser casing shall consist of SDR17 Johnson 16-inch diameter casing.

2.02 CARBON STEEL CASING

- A. All steel casing shall be new and unused carbon steel pipe that conforms to A139 (30-inch well casings). Wall thickness shall be a minimum 0.375.
- B. Steel casing mill certificates shall be submitted to the ENGINEER by the CONTRACTOR prior to delivery of the casing to the site for approval. Casing will

not be approved for installation without mill certification submittal and approval by the ENGINEER.

2.03 POLY VINYL CHLORIDE (PVC) CASING

- A. The 24-inch diameter PVC casing will be schedule 40 or approved equivalent. Any equivalent casing selected must be shown to have sufficient joint and tensile strength, internal pressure rating, resistance to collapse and ability to withstand all stresses of construction. Any alternates must be approved in advance by the ENGINEER.
- B. The 16-inch riser PVC casing and couplings shall be SDR17 Certa-Lok by Johnson or equivalent. Any equivalent casing selected must be shown to have sufficient joint and tensile strength, internal pressure rating, resistance to collapse, and ability to withstand all stresses of construction. Any alternates must be approved in advance by the ENGINEER.
- C. All casings shall be clearly marked with type, grade and manufacturer. If required by the ENGINEER, the CONTRACTOR shall provide additional backup supporting documentation from the Manufacturer.
- D. Casing elevators must be approved by the ENGINEER.
- E. Only CertainTeed Certa-Lok splines shall be used with Certa-Lok couplings. The CONTRACTOR shall provide a copy of the installation and connection procedure on site for review prior to casing assembly.
- F. Final PVC well casing shall be completed as shown on the drawings.
- G. Bills of lading shall be provided for casings delivered for well construction.

2.04 CENTERING GUIDES

- A. Casing centering guides (centralizers) shall be placed on all casing strings, prior to installation, at 30-foot intervals with the first set of centralizers placed within 5 feet from the bottom of the casing. At the location five feet above the base of the casing, six equally spaced centralizers shall be installed and at all other locations four equally spaced centralizers shall be installed. Centralizers shall be fixed to the casing at coupling locations. If requested by the ENGINEER, an additional centralizer shall be installed 15 feet from the bottom of the casing.
- B. Centralizer material shall be steel when attached to carbon steel, stainless steel when attached to stainless steel, and either stainless steel or other approved material when attached to PVC casing. Guides shall be welded when attached to steel; and steel strapped to PVC.
- C. Fixed centering guides shall extend outward from the casing to within 1/2 inch of the maximum drill bit dimension.

- D. Uppermost centering guide for the final PVC casing shall be installed at a minimum of 15 feet below finished grade.

PART III EXECUTION

3.01 GENERAL

- A. Casings shall be installed as described in the specifications and drawings. Actual casing depths shall be determined by the ENGINEER.
- B. The casing installation method shall be approved in advance by the ENGINEER and be consistent with manufacturer specifications.
- C. Casing failure by any means, including but not limited to: any collapse, breakage, separation, dents, tears, or rips during construction that in any way impairs the use of the well in the opinion of the ENGINEER, shall be repaired or replaced at the CONTRACTOR's sole expense.
- D. Casing connections shall meet manufacture specifications for water tightness. Connections shall have equal strength to the casing itself.
- E. All steel and stainless steel casings shall have machine cut beveled ends and shall be arc welded together according to the standards of the American Welding Society. Welded casings shall be straight and true of alignment to the satisfaction of the ENGINEER.
- F. Final PVC well casing shall be set at one foot above 100-year flood elevation in accordance with project drawings and to facilitate final wellhead installation.

3.02 WELDING

- A. General: The standards of the American Welding Society, Structural Welding Code (AWS D1.1) shall apply for all welded joint casing and accessories. All welds shall conform to the latest revision of ANSI B31.1.
- B. Certification: All welded casing joints shall be made by welders certified in the State of Florida. The certified welder shall perform and be responsible for the integrity of all steel casing welds. The CONTRACTOR must provide the ENGINEER proof of welders' certifications 72 hours before any welding is performed.
- C. Surface Preparation: Any surface defects that shall affect the weld shall be chipped or ground out. A power-driven wire brush shall be used to thoroughly clean each layer of weld prior to each additional weld metal, including the final pass.
- D. Passes: There shall be a minimum of three (3) weld passes on pipe sizes 6-inches and greater.

- E. Cooling Time: Welded joints shall be allowed to cool for not less than 30 minutes before the weld is placed in contact with water or until the welded joint reaches a temperature equal to or less than 400 degrees Fahrenheit.
- F. Weld Reinforcement: Weld reinforcement shall be as specified by the AWS code. Upon completion of welding, all weld splatter, flux, slag, and burrs left by attachments shall be removed. Welds shall be repaired to produce a workmanlike appearance, with uniform weld contours and dimensions.
- G. Field Joints: All field joints shall be welded during installation by qualified welders in accordance with the requirements of AWWA C206.

END OF SECTION

SECTION 03300

BOREHOLE GEOPHYSICAL AND VIDEO LOGGING

PART I - GENERAL

1.01 SCOPE OF WORK

- A. This section covers the equipment, work, and materials necessary to perform geophysical logging of the well.
- B. Provide the following geophysical logging and well survey equipment:
 - 1. XY Caliper log
 - 2. Gamma Ray log
 - 3. Dual Induction log
 - 5. Spontaneous Potential
 - 6. Static and Dynamic Well Video log

PART II – PRODUCTS

(NOT USED)

PART III - EXECUTION

3.01 GENERAL

- A. All logging shall be supervised by the ENGINEER with 24 hours advanced notice. The CONTRACTOR is responsible to ensure that logs are complete and include the entire borehole and cased intervals as directed by the ENGINEER. Logging should be done as soon as possible after the drilling tools have been removed from the logged interval.

- B. When the hole has been drilled to a depth determined by the ENGINEER, it must be prepared for geophysical logging. Borehole preparation will include but not be limited to: i) continuation of drilling fluid circulation until drill cuttings have been removed from the borehole and the fluid is uniform in the borehole; or ii) reverse air pumping until the discharge water is free of cuttings and suspended sediment. The CONTRACTOR must make all reasonable efforts to leave the borehole free from obstructions in preparation for geophysical logging. Logging must be done immediately following the completion of borehole preparation unless otherwise stated in the Contract or as stipulated by the ENGINEER.
- C. Each log must be run and recorded in a continuous fashion to qualify as an acceptable log.
- D. The CONTRACTOR is responsible to ensure that the logs are complete. Any obstructions or fill material or borehole of reduced diameter more than 1/2-inch in the borehole or cased intervals shall be removed or reamed by the CONTRACTOR at his own expense.
- E. All logs will include a repeat section of not less than 50 feet of the portion of the hole. The ENGINEER will determine the repeat section.
- F. All logs shall be appropriately labeled with all appropriate information. Two (2) field copies shall be made available to the ENGINEER upon completion. Five (5) electronic copies of finished logs, including LAS and PDF files, are to be provided by the CONTRACTOR within two weeks of logging.
- G. A down hole video log in DVD format will be conducted to inspect the casing and screened interval of the well prior to demobilizing the drilling rig. The video will be conducted in the presence of the ENGINEER. The video camera lens will be color and capable of 360-degree movement; be controlled by the logging technician; be independent of the camera body; and have focus capability. The video camera will be centralized in the borehole. The centralizers will self adjust to different casing and hole sizes as necessary. If the ENGINEER determines that the video is unacceptable due to poor quality, the CONTRACTOR at his expense will obtain the necessary equipment to perform additional logging to the satisfaction of the ENGINEER.
- H. Video logging will be conducted under both static and pumping conditions at the direction of the ENGINEER. The CONTRACTOR shall ensure that the well is pumped sufficiently to ensure adequate visibility for the video survey as determined by the ENGINEER. The CONTRACTOR shall use a submersible pump capable of a minimum of 500 gpm discharge rate.

SCHEDULE OF GEOPHYSICAL AND VIDEO LOGS

Construction Phase	Log Type
Profile Hole	XY Caliper, Natural Gamma Log, Dual Induction, SP Log
Nominal 28-inch diameter borehole for 24-inch casing installation	XY Caliper, Natural Gamma Log
Nominal 22-inch diameter borehole for 16-inch casing installation	XY Caliper, Natural Gamma Log
Following development and pump testing	Static and Dynamic Well Video log

END OF SECTION

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SECTION 03400

ANNULAR GROUT

PART I - GENERAL

1.01 SCOPE OF WORK

- A. This section covers the labor, equipment, and materials required to furnish and install the annular grout.

1.02 SUBMITTALS

- A. Provide data on all proposed additives and manufacturer's specifications.
- B. Provide bulk cement unit weight tickets for verification of cement quantities pumped.
- C. Prior to each cement stage the CONTRACTOR shall submit a plan including anticipated theoretical lift for the specific cement stage. If theoretical lift differs from actual lift by greater than 40%, the CONTRACTOR shall immediately provide alternative means of verifying the cement grout is uniform and continuous prior to continuing subsequent stages of grout. This verification shall be performed at the CONTRACTOR's expense and shall be performed in a timely manner so as not to hinder successful grouting of subsequent stages.
- D. During cementing, provide cement slurry weight data for each grouting stage. A fixed, safe, accessible location to collect samples must be provided to the satisfaction of the ENGINEER. Samples of the cement slurry shall be collected, weighed and recorded by the CONTRACTOR in sight of the ENGINEER. If performed in batches, provide slurry weight and collect sample for each batch mixed. If performed in continuous mixing, provide slurry weights and collect samples at the beginning, middle, and end of pumping for each grouting stage.

PART II - PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. The CONTRACTOR shall furnish and install all grout and additives as specified.
- B. Cement and dry additives shall be delivered to the site in their dry state and mixed with water on site.
- C. The use of ready-mix grout, mixed with water prior to delivery to the site, will be permitted; however, the CONTRACTOR must ensure that all delivered grout meets the criteria listed below and outlined in this Section. Any delivered ready-mix grout that does not meet the criteria will be rejected at the CONTRACTOR'S cost.

- Grout temperature shall be read and recorded prior to pumping downhole using equipment provided by the CONTRACTOR and viewed in the field by the ENGINEER. Acceptable grout temperature shall be in accordance with Specification for Hot Weather Concreting (ACI 305), including, but not limited to, a maximum temperature of ready mixed grout of no more than 95 degrees Fahrenheit, unless otherwise specified by the ENGINEER.
- Slurry weight of ready mixed grout shall be measured prior to pumping downhole using equipment provided by the CONTRACTOR and viewed in the field by the ENGINEER.
- Ready mixed grout slurry shall be free of grout stones (improperly mixed grout) and other foreign materials.

2.02 PORTLAND CEMENT

- A. Cement grout shall be API class B Portland cement and conform to ASTM C150, Type II standards.

2.03 BENTONITE

- A. Bentonite furnished for cementing shall be raw bentonite and be added at the bulk facility and thoroughly mixed at the ratio specified. Small batches (less than 50, 94-lb. bags of cement) of grout may be mixed on site. Bentonite-cement mix ratio shall not exceed applicable regulations for cement grout.
- B. If the CONTRACTOR proposes to mix bentonite with cement on site, all ingredients shall be thoroughly mixed, at the ratio specified, to the satisfaction of the ENGINEER. The CONTRACTOR shall demonstrate the dry mixing method to the ENGINEER prior to mixing the slurry. Following dry mixing, the CONTRACTOR shall mix a slurry sample for measurement and provide a method of measurement to determine the weight in pounds per gallon of cement slurry to confirm proper mix ratios. Bentonite-cement mix ratio shall not exceed applicable regulations for cement grout.

PART III - EXECUTION

3.01 GROUTING

- A. The CONTRACTOR is solely responsible for the successful execution of grouting. Annular grout shall be in conformance with all applicable local and state regulations.
- B. The CONTRACTOR shall sufficiently circulate the annulus between the casing and borehole prior to grouting to ensure borehole fluids are properly conditioned to minimize channeling and non-uniform grouting.

- C. The CONTRACTOR is solely responsible for defects in the grout or grouted interval. The CONTRACTOR shall take all precautions to protect the casing from collapse or damage during grouting. Any defects in the grout job or casing damage resulting from grouting shall be corrected by the CONTRACTOR at his own expense.
- D. The CONTRACTOR shall provide 24-hour notice prior to each stage of cementing of the well to enable the ENGINEER to observe all cementing operations.
- E. Provide a method of measurement to determine the weight in pounds per gallon of cement slurry to confirm proper mix ratios. Samples of the cement slurry shall be collected, weighed and recorded by the CONTRACTOR in sight of the ENGINEER. The correct mix ratios shall be maintained. If performed in batches, provide slurry weight and collect samples for each batch mixed. If performed in continuous mixing, provide slurry weights and collect samples at the beginning, middle and end of pumping for each grout stage. The CONTRACTOR shall provide a fixed, safe, accessible location for the ENGINEER to view and/or collect grout samples during the cementing process.
- F. If grouting is to be conducted in stages, the top of the hardened grout from the previous grouting stage shall be measured in the presence of the ENGINEER prior to each cementing stage. Each cementing stage shall be given 12 hours of curing time prior to resuming cementing. It is the responsibility of the CONTRACTOR to determine the collapse strength of the casing and the appropriate amount of grout for each grouting stage. Cementing calculations shall be reviewed with the ENGINEER in advance of each grouting stage. Grout shall be allowed to cure for 48 hours before continuation of drilling operations.
- G. The grout mixture for the initial grouting stage after each casing installation shall be API Class B neat Portland cement mixed with no more than 5.5 gallons of water per sack of cement, with a minimum 14.8 lbs/gallon. At a minimum, the neat cement mixture shall be used to grout the lower 40 linear feet of casing. Additional grouting stages after casing installation above the initial grouting stage shall be API Class B Portland cement mixed with up to 6% bentonite and no more than 9 gallons of water per sack of cement as approved by the ENGINEER. Only potable water shall be used for the grout mix.
- H. CONTRACTOR is solely responsible for the proper grouting of all casings in accordance with all applicable AWWA, SFWMD, FDEP and HD standards.

3.02 SETTING TIME

- A. The cement must be allowed to cure 12 hours between cementing stages.
- B. The final cement stage shall have a minimum 48 hours to cure before continuation of drilling operations.

END OF SECTION

SECTION 03500

WELL DEVELOPMENT

PART I – GENERAL

1.01 SCOPE OF WORK

- A. This section covers the labor, equipment, and materials required to develop the well. Development shall include surging/sustained rate pumping at rates up to 2,000 gpm or as directed by the ENGINEER.
- B. Under no circumstances shall the pumping equipment create a vacuum within the well casing.
- C. The CONTRACTOR shall manage discharge water as described below and in **Section 05000**.

1.02 SUBMITTALS

- A. The CONTRACTOR shall furnish the ENGINEER with a calibrated flow meter with certification no older than 60 days prior to the notice to proceed and attest to an accuracy of 95 percent or greater for the range of the meter.
- B. The CONTRACTOR shall furnish the ENGINEER with manufacturer specifications for all chemical additives proposed for development.
- C. The CONTRACTOR shall furnish the ENGINEER with manufacturer specifications for generators, pumps, and corresponding silencers.
- D. The CONTRACTOR shall submit to the ENGINEER, prior to installation of the development pump, a manufacturer pump curve for the development and testing pump(s).
- E. The CONTRACTOR shall submit to the ENGINEER a shop drawing depicting a schematic plan with equipment and piping for formation water disposal.
- F. Daily development summary logs must be completed daily by the CONTRACTOR and submitted to the ENGINEER, as requested. Blank daily development forms can be found at the end of this section.
- G. Completed daily development logs shall be submitted weekly to the ENGINEER.

PART II – PRODUCTS

2.01 DEVELOPMENT EQUIPMENT

- A. Provide all pumps, motors, air compressors, and other ancillary equipment needed to develop the well to the extent that, as practical, suspended solids are removed from the borehole. Provide all pipe, fittings, and valves required to transmit discharge water from the pump to the settling tanks as required in **Section 05000 – Formation Water Disposal**.
- B. The test pumping equipment shall have access ports, water level measurement setup, and discharge piping as required in **Section 04000 – Pumping Tests**.
- C. The CONTRACTOR shall provide a calibrated flow meter near the pump. The flow meter shall be accurate and precise within the range of 200 gpm to 2,000 gpm. The placement of the flow meter shall be in accordance with manufacturer recommendations for flow meter placement. The CONTRACTOR shall also consult the ENGINEER for optimal flow meter placement. Air release valves shall be provided and installed by the CONTRACTOR at as many locations as required. Air release valves shall consist of tapping the discharge pipe and providing and installing a 2-inch diameter riser and gate valve. The CONTRACTOR shall supply an orifice weir to verify pumping rates.
- D. The development equipment must be able to divert the flow of water in a controlled manner to minimize flooding and erosion. Discharge water shall be clear and free of suspended solids. Discharge water shall be retained temporarily using a settling tank for settlement of solids and pumped via temporary piping to the discharge point as directed by the ENGINEER. Tanks required for settling of solids and additional pumps and temporary piping needed to transmit water to the discharge point shall be included in the unit cost for development. Management and removal of development solids shall be included in the unit cost for development.
- E. The CONTRACTOR shall provide a dedicated Rossum sand tester for the well throughout pump development.

PART III – EXECUTION

3.01 AIRLIFT AND JETTING WITH SIMULANTEOUS AIRLIFT WELL DEVELOPMENT

- A. Develop the well using compressed air lift at a minimum air flow rate of 650 cubic feet per minute. The base of the air discharge shall be set at the base of the screen during the initial development period. This step shall be

considered initial development to remove the majority of drilling fluid from the borehole and to confirm the stability of the gravel pack. Air development shall include varying the depth of air discharge and periodically surging the well with the use of a surge tank. The top of the gravel pack shall be continuously monitored during air lift. If the top of the gravel pack is below the top of the desired level, then gravel must be added.

- B. Following initial development, high velocity jetting shall be done using a solution of Bentonite Mud Remover (BMR) and/or chlorinated water for a period of time to be determined by the ENGINEER. A high velocity jetting tool having 4 nozzles shall be rotated and moved vertically throughout the entire screened portion of the well while chlorinated water is forced through the screen and into the gravel pack. The jetting tool and pumping equipment shall deliver a minimum total flow rate of 500 gpm. Nozzle sizes and flow rates shall be reviewed by the ENGINEER, however, a minimum diameter for nozzle jets shall be no less than 1-inch. Maximum jetting velocity must be reviewed by ENGINEER for approval. Pumps used for jetting shall be at the surface with measured output flow rate to the jet tool. The initial phase of jetting shall be done using a solution of BMR and chlorinated water having a minimum chlorine concentration of 50 milligrams per liter (mg/L). The initial jetting phase shall be not less than 8 hours. Thereafter, fresh water may be used for jetting development. At the direction of the ENGINEER, accumulating sand in the screen shall be removed by lowering the air lift set to the bottom of the well. After thoroughly jetting and surging the well with the jetting tool, well development shall be performed using air lift at the base of the screen or directed by the ENGINEER.
- C. Alternative methods of development may be submitted by the CONTRACTOR prior to implementation for ENGINEER review.

3.02 SURGE PUMPING

- A. Using the test pump setup described in **Section 04000**, the CONTRACTOR shall pump surge the well until the discharge water is free of suspended material. The CONTRACTOR shall install a pump in the well capable of pumping steadily and in surges up to 2,000 gpm from the well through the Formation Water Disposal System. The CONTRACTOR shall surge the well frequently and be able to sustain a steady high flow rate as directed by the ENGINEER.
- B. The CONTRACTOR shall assist the ENGINEER with any connections required to connect the ENGINEER's provided silt density index (SDI) testing equipment to the pump discharge. The CONTRACTOR shall provide, operate and maintain a clean auxiliary pump capable of maintaining 35 pounds per square inch (psi) for SDI testing. The auxiliary pump shall be plumbed to the well discharge for sampling and testing. The CONTRACTOR shall provide fittings and fabricate connections as needed to enable the ENGINEER to perform the SDI tests.

- C. The CONTRACTOR shall measure static water level in the well prior to the start of development each day. Additionally, CONTRACTOR shall perform a specific capacity test daily, which shall include measurement of flow rate and simultaneous measurement of water level in the well. The pump shall be capable of a minimum discharge rate of 100 gpm with a minimum drawdown of 25 feet below the pump level. Test duration shall be 30 minutes with pumping water levels measured at the end of the 30-minute duration.

3.03 DATA COLLECTION

- A. CONTRACTOR shall complete daily development summary forms provided by the ENGINEER, including daily static water level measurements, pumping water level measurements, pumping rates, and sand (Rossum) tests.
- B. Throughout development and at completion of development, as directed by and in the presence of the ENGINEER, the CONTRACTOR shall measure the total depth of the well. If significant in-filling has occurred, as determined by the ENGINEER, the CONTRACTOR shall proceed to clean out the borehole to the original total depth.

3.04 DISCHARGE WATER

- A. Discharge water generated during construction activities shall be discharged to the CONTRACTORs formation water disposal system and subsequently to the designated outfall location. Settling and treatment of formation water to be discharged is the CONTRACTOR's responsibility and shall be in accordance with all applicable regulations and **Section 05000**. The CONTRACTOR shall set up and maintain discharge water transmission piping, as required in **Section 05000**. Discharge water shall always be contained and under control by the CONTRACTOR.
- B. The CONTRACTOR is solely responsible, by any and all methods necessary, to meet the requirements for discharge of water. If the CONTRACTOR fails to fulfill proper requirements of discharge water, the CONTRACTOR is responsible for complete restoration of the discharge location to the original condition at no cost to the OWNER.

END OF SECTION

SECTION 03600

WELL SCREEN AND GRAVEL PACK

PART I GENERAL

1.01 SCOPE OF WORK

This section covers the work, equipment and materials necessary for furnishing and installing the well screen and gravel pack.

1.02 SUBMITTALS

- A. Provide data on all proposed additives and manufacturer's specifications.
- B. Provide manufacturer's specifications and technical data on all screens and gravel to be provided for well construction.
- C. Provide grain size distribution data on gravel pack and a 16-ounce sample prior to use for ENGINEER review and approval. Each subsequent gravel purchased by the CONTRACTOR shall have updated gravel grain size analyses and 16-ounce sample submitted to the ENGINEER for review and approval. It is the CONTRACTOR's responsibility to provide gravel throughout the project that matches submittal approved gravel with no less than 90% retained on the well screen.
- D. Provide shop drawings showing screen/PVC casing transition coupling.

PART II PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. All screens shall be approved for use in municipal public supply wells, and to the specifications as outlined. The CONTRACTOR shall furnish, satisfactorily install and gravel pack each string of well screen and riser casing. All screens, riser casings, couplings, and adapters shall be new, unused, in good physical condition, and delivered to the site in the original protective wood crates as provided by the manufacturer. Warped or damaged materials will be rejected.
- B. The well screen to be used in the construction of the production well shall be 16-inch diameter, continuous slot, type 316 stainless steel well screens, of V-slot design, as manufactured by Johnson Well Screens, Inc., or approved equal. Screen sections shall be joined by welding or by threaded and coupled connections. If welded, the weld will not decrease the corrosion resistance of the screen.

- C. The ENGINEER will determine the screen slot size within 5 working days of borehole drilling completion. Blank sections within the screened interval shall be "tight wound" type 316 stainless steel screen having less than 0.001" slot openings.
- D. The Bidding Documents indicate an estimate of the screen length. Actual lengths shall be determined by the ENGINEER.
- E. The bottom of the screen shall be fitted with a 16-inch diameter, 316 stainless steel flat plate welded to the screen.

2.02 RISER CASING

- A. Riser casing shall consist of 16-inch diameter SDR17 Johnson well casing. For estimation purposes, the riser interval is shown on the project drawings; however, the amount of riser required may change based on the results of drilling. The riser will be continuous from the top of the screen to land surface or as determined by the ENGINEER.
- B. The riser casing will be securely connected to the stainless-steel screen by a method approved by the screen manufacturer and the ENGINEER. The CONTRACTOR is responsible for the intact placement of the screen and riser pipe to the depth specified by the ENGINEER.

2.03 CENTERING GUIDES

- A. Casing centering guides (centralizers) shall be placed on the screen and casing, prior to installation, at 30 feet intervals with the first set of centralizers placed within 5 feet from the bottom of the screen. Centralizers shall be fixed to the casing at weld ring or coupling locations. Centralizers shall be aligned so that they do not interfere with the installation of gravel and cement installation tubing.
- B. Centralizer material shall be stainless steel when attached to stainless steel, and either stainless steel, or approved alternative, when attached to PVC. Guides shall be welded when attached to steel; and screw attached using 1/4-inch screws or lags that penetrate not more than 80 percent of the coupling and casing when attached to PVC. Any casing penetrated will be rejected and shall be replaced at the CONTRACTOR's expense.
- C. Centralizer material shall be non-ferrous and will not be attached by drilling into the casing. No ferrous materials will be used for attachment.

2.04 GRAVEL PACK MATERIAL

- A. Gravel pack material shall have a minimum of 95% silica, sorted and graded so that there is minimum 90% retention on the well screen installed. Gravel pack supplier

shall be located within the State of Florida. It is the CONTRACTOR's responsibility to provide gravel throughout the project that matches submittal approved gravel with no less than 90% retained on the well screen. Gravel pack must be approved by the ENGINEER prior to installation.

PART III EXECUTION

3.01 GENERAL

- A. Screens and casing risers shall be installed as described in the specifications and drawings. Actual casing depths will be determined by the ENGINEER.
- B. The screen assembly and installation method shall be approved in advance by the ENGINEER and be consistent with manufacturer specifications.
- C. Gravel pack will be installed in a water slurry by the tremie method. The base of the tremie pipe shall be placed at the gravel placement depth and be moved upward consistent with the gravel fill depth. The gravel pack shall be carefully installed to insure complete filling of the annular space from the bottom of the hole to a minimum of 20 feet above the base of the outer casing or as specified by the ENGINEER. During gravel placement, the free fall distance between the gravel in place and the lower end of the construction tremie shall not exceed 20 feet.
- D. Water required for the construction of the well shall be clean, potable, and meet primary and secondary drinking water standards pursuant to Chapter 62-550 Florida Administrative Code.
- E. After gravel placement, additional gravel may be required during development or other well construction procedures. Placement of additional gravel shall be performed as outlined above until no further measurable settlement of the gravel pack or as determined by the ENGINEER.
- F. Screen or casing failure by any means, including but not limited to: collapse, breakage, separation, dents, tears or rips during construction, that in any way impair the use of the well in the opinion of the ENGINEER, shall be repaired or replaced at the CONTRACTOR's sole expense.
- G. Casing connections shall meet manufacturer specifications for water tightness. Connections shall have equal or greater strength as the casing itself.

END OF SECTION

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SECTION 03700

CAST-IN-PLACE CONCRETE

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section specifies cast-in-place concrete, including formwork, reinforcing, mix design, placement procedures, and finishes.
- B. Cast-in-place concrete includes the following:
 - 1. Foundations, grade beams, walls and footings.
 - 2. Slabs-on-grade.
 - 3. Foundation walls.
 - 4. Site paving.
 - 5. Equipment pads and bases.
 - 6. Miscellaneous concrete work as indicated.
- C. Related Sections: The following Sections contain requirements that relate to this Section:

1.03 SUBMITTALS

- A. General: Submit the following according to Conditions of the Contract and Division 1 Specification Sections.
- B. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, water stops, joint systems, curing compounds, dry-shake finish materials, and others if requested by ENGINEER.

- C. Shop drawings for reinforcement detailing fabricating, bending, and placing concrete reinforcement. Comply with ACI 315 Details and Detailing of Concrete Reinforcement showing bar schedules, stirrup spacing, bent bar diagrams, and arrangement of concrete reinforcement. Include special reinforcing required for openings through concrete structures.
- D. Samples of materials as requested by ENGINEER, including names, sources, and descriptions, as follows.
- E. Laboratory test reports for concrete materials and mix design test.
- F. Material certificates in lieu of material laboratory test reports when permitted by ENGINEER. Material certificates shall be signed by manufacturer and CONTRACTOR, certifying that each material item complies with or exceeds specified requirements. Provide certification from admixture manufacturers that chloride content complies with specification requirements.

1.04 QUALITY ASSURANCE

- A. Codes and Standards: Comply with provisions of the following codes, specifications, and standards, except where more stringent requirements are shown or specified:
 - 1. American Concrete Institute (ACI) 301, Specifications for Structural Concrete.
 - 2. ACI 318, Building Code Requirements for Reinforced Concrete.
 - 3. Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice.
- B. Concrete Testing Service: Engage a testing agency acceptable to ENGINEER to perform material evaluation tests and to design concrete mixes.
- C. Materials and installed work may require testing and retesting at any time during progress of Work. Tests, including retesting of rejected materials for installed Work, shall be done at CONTRACTOR's expense.

PART 2 – PRODUCTS

2.01 FORM MATERIALS

- A. Forms for Exposed Finish Concrete: Plywood, metal, metal-framed plywood faced, or other acceptable panel-type materials to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings.

1. Use plywood complying with U.S. Product Standard PS-1 AB-B (Concrete Form) Plywood, Class 1, Exterior Grade or better, mill-oiled and edge-sealed, with each piece bearing legible inspection trademark.
- B. Forms for Unexposed Finish Concrete: Plywood, lumber, metal, or another acceptable material. Provide lumber dressed on at least two (2) edges and one (1) side for tight fit.
- C. Forms for Cylindrical Columns and Supports: Metal, glass-fiber-reinforced plastic, or paper or fiber tubes that will produce smooth surfaces without joint indications. Provide units with sufficient wall thickness to resist wet concrete loads without deformation.
- D. Form Release Agent: Provide commercial formulation form release agent with a maximum of 350 mg/1 volatile organic compounds (VOCs) that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
- E. Form Ties: Factory-fabricated, adjustable-length, removable or snap-off metal form ties designed to prevent form deflection and to prevent spalling of concrete upon removal. Provide units that will leave no metal closer than 1.5 inches to the plane of the exposed concrete surface.
 1. Provide ties that, when removed, will leave holes not larger than one (1) inch in diameter in the concrete surface.

2.02 REINFORCING MATERIALS

- A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
- B. Steel Wire: ASTM A 82, plain, cold-drawn steel.
- C. Welded Wire Fabric: ASTM A 185, welded steel wire fabric.
- D. Supports for Reinforcement: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Use wire bar-type supports complying with CRSI specifications.
 1. For slabs-on-grade, use supports with sand plates or horizontal runners where base material will not support chair legs.
 2. For exposed-to-view concrete surfaces where legs of supports are in contact with forms, provide supports with legs that are protected by plastic (CRSI, Class 1) or stainless steel (CRSI, Class 2).

2.03 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type I.
 - 1. Use one (1) brand of cement throughout Project unless otherwise acceptable to ENGINEER.
- B. Fly Ash: shall be allowed with a 20 percent by weight maximum proportion.
- C. Normal-Weight Aggregates: ASTM C 33 and as specified. Provide aggregates from a single source for exposed concrete.
 - 1. For exposed exterior surfaces, do not use fine or coarse aggregates that contain substances that cause spalling.
 - 2. Local aggregates not complying with ASTM C 33 that have been shown to produce concrete of adequate strength and durability by special tests or actual service may be used when acceptable to ENGINEER.
- D. Lightweight Aggregate: If shown on Drawings, use ASTM C 330.
- E. Water: Potable.
- F. Admixtures, General: Provide concrete admixtures that contain not more than 0.1 percent chloride ions.
- G. Air-Entraining Admixture: ASTM C 260, certified by manufacturer to be compatible with other required admixtures.
- H. Water-Reducing Admixture: ASTM C 494, Type A.
- I. High-Range Water-Reducing Admixture: ASTM C 494, Type F or Type G.
- J. Water-Reducing, Accelerating Admixture: ASTM C 494, Type E.
- K. Water-Reducing, Retarding Admixture: ASTM C 494, Type D.
- L. Capillary Barrier: Under all interior slabs on grade, use four (4) inch layer of flume sand.
- M. Vapor Retarder: Provide vapor retarder that is resistant to deterioration when tested according to ASTM E 154, as follows:
 - 1. Polyethylene sheet not less than six (6) mils thick.

- N. Moisture-Retaining Cover: One of the following, complying with ASTM C 171.
 - 1. Waterproof paper.
 - 2. Polyethylene film.
 - 3. Polyethylene-coated burlap.
- O. Liquid Membrane-Forming Curing Compound: Liquid-type membrane-forming curing compound complying with ASTM C 309, Type I, Class A. Moisture loss not more than 0.55 kg/sq. meter when applied at 200 sq. ft./gal. Use Type 1-D on exterior concrete pavements and walks.
 - 1. Provide material that has a maximum volatile organic compound (VOC) rating of 350 mg per liter.

2.04 PROPORTIONING AND DESIGNING MIXES

- A. Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. For the trial batch method, use an independent testing agency acceptable to ENGINEER for preparing and reporting proposed mix designs.
 - 1. Do not use the same testing agency for field quality control testing.
- B. Submit written reports to ENGINEER of each proposed mix for each class of concrete at least fifteen (15) days prior to start of Work. Do not begin concrete production until proposed mix designs have been reviewed by ENGINEER.
- C. Design mixes to provide normal weight concrete with the following properties as indicated on drawings and schedules:
 - 1. If not shown on Drawings, concrete for foundations shall be 3500 psi, slabs-on-grade, columns and beams shall be 4000 psi, 28-day compressive strength normal weight. Water-cement ratio 0.50 maximum (non air-entrained), 0.45 maximum (air-entrained). Minimum cement factor = 489 lbs./c.y. Water reducing admixture is required.
 - 2. If not shown on Drawings, concrete grout for CMU pier, bond beam, and lintel fill: 3500-psi, 28-day compressive strength; conforming to ASTM C 416 standard specification: Mixture of 2, 2, 1.5 (Portland Cement, Sand, Pea Gravel: Nine (9) inch design slump: 3/8-inch maximum size pea gravel.

- D. Slump Limits: Proportion and design mixes to result in concrete slump at point of placement as follows:
1. Ramps, slabs, and sloping surfaces: Not more than four (4) inches.
 2. Concrete Footing Shafts: Slump range of five (5) to eight (8) inches.
 3. Grade Beams: Slump range three (3) to five (5) inches.
 4. Slabs and Pavements on Grade: Maximum slump five (5) inches.
 5. Concrete grout for CMU pier, bond beam, and Lintel Fill-Slump range seven (7) inches to nine (9) inches.
 6. Concrete containing high-range water-reducing admixture (super-plasticizer): Not more than eight (8) inches after adding admixture to site-verified two (2) to three (3) inch slump concrete.
 7. Other concrete: Not more than four (4) inches.
- E. Adjustment to Concrete Mixes: Mix design adjustments may be requested by CONTRACTOR when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, as accepted by ENGINEER. Laboratory test data for revised mix design and strength results must be submitted to and accepted by ENGINEER before using in Work.

2.05 ADMIXTURES

- A. Use water-reducing admixture in all 3000 psi or higher strength concrete.
- B. Using high-range water-reducing admixture (super-plasticizer) in concrete, as required, for placement and workability.
- C. Use accelerating admixture in concrete slabs placed at ambient temperatures below 50 degrees F (10 degrees C).
- D. Use air-entraining admixture in exterior exposed concrete unless otherwise indicated. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having total air content of 5 percent with a tolerance of plus or minus 1.5 percent.
- E. Use admixtures for water reduction and set accelerating or retarding in strict compliance with manufacturer's directions.

2.06 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with requirements of ASTM C 94, and as specified.
 - 1. When air temperature is between 85 degrees F (30 degrees C) and 90 degrees F (32 degrees C), reduce mixing and delivery time from 1.5 hours to 75 minutes, and when air temperature is above 90 degrees F (32 degrees C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.01 GENERAL

- A. Coordinate the installation of joint materials, vapor retarder/barrier, and other related materials with placement of forms and reinforcing steel.

3.02 FORMS

- A. General: Design, erect, support, brace, and maintain formwork to support vertical, lateral, static, and dynamic loads that might be applied until concrete structure can support such loads. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation, and position. Maintain formwork construction tolerances and surface irregularities complying with the following ACI 347 limits.
 - 1. Provide Class A tolerances for concrete surfaces exposed to view.
 - 2. Provide Class C tolerances for other concrete surfaces.
- B. Construct forms to sizes, shapes, lines, and dimensions shown and to obtain accurate alignment, location, grades, level, and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in the Work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent cement paste from leaking.
- C. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like for easy removal.
- D. Provide temporary openings for clean-outs and inspections where interior area of formwork is inaccessible before and during concrete placement. Securely brace temporary openings and set tightly to forms to prevent losing concrete mortar. Locate temporary openings in forms at inconspicuous locations.

- E. Chamfer exposed corners and edges as indicated, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.
- F. Provisions for Other Trades: Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.
- G. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, or other debris just before placing concrete. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

3.03 VAPOR RETARDER/BARRIER INSTALLATION

- A. General: Place vapor retarder/barrier sheeting in position with longest dimension parallel with direction of pour.
- B. Lap joints six (6) inches and seal with manufacturer's recommended mastic or pressure-sensitive tape.

3.04 PLACING REINFORCEMENT

- A. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for Placing Reinforcing Bars, for details and methods of reinforcement placement and supports and as specified.
 - 1. Avoiding cutting or puncturing vapor retarder/barrier during reinforcement placement and concreting operations. Repair damages before placing concrete.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that reduce or destroy bond with concrete.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as approved by Engineer.
- D. Place reinforcement to maintain minimum coverages as indicated for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.
- E. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one (1) full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

3.05 JOINTS

- A. Construction Joints: Locate and install construction joints so they do not impair strength or appearance of the structure, as acceptable to ENGINEER.
- B. Provide keyways at least 1.5 inches deep in construction joints in walls and slabs and between walls and footings. Bulkheads designed and accepted for this purpose may be used for slabs.
- C. Place construction joints perpendicular to main reinforcement. Continue reinforcement across construction joints except as indicated otherwise. Do not continue reinforcement through sides of strip placements.
- D. Use bonding agent on existing concrete surfaces that will be joined with fresh concrete.

3.06 INSTALLING EMBEDDED ITEMS

- A. General: Set and build into formwork anchorage devices and other embedded items required for other work that is attached to or supported by cast-in-place concrete. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached.
- B. Forms for Slabs: Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and contours in finished surfaces. Provide and secure units to support screed strips using strike-off templates or compacting-type screeds.

3.07 PREPARING FORM SURFACES

- A. General: Coat contact surfaces of forms with an approved, nonresidual, low-VOC, form-coating compound before placing reinforcement.
- B. Do not allow excess form-coating material to accumulate in forms or come into contact with in-place concrete surfaces against which fresh concrete will be placed. Apply according to manufacturer's instructions.

3.08 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. General: Comply with ACI 304, Guide for Measuring, Mixing, Transporting, and Placing Concrete, and as specified.

- C. Deposit concrete continuously or in layers of such thickness that no new concrete will be placed on concrete that has hardened sufficiently to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as specified. Deposit concrete to avoid segregation at its final location.
- D. Placing Concrete in Forms: Deposit concrete in forms in horizontal layers no deeper than twenty-four (24) inches and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.
 - 1. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures for consolidation of concrete complying with ACI 309.
 - 2. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations no farther than the visible effectiveness of the machine. Place vibrators to rapidly penetrate placed layer and at least six (6) inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mix to segregate.
- E. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until completing placement of a panel or section.
 - 1. Consolidate concrete during placement operations so that concrete is thoroughly worked around reinforcement, other embedded items and into corners.
 - 2. Bring slab surfaces to correct level with a straightedge and strike off. Use bull floats or darbies to smooth surface free of humps or hollows. Do not disturb slab surfaces prior to beginning finishing operations.
 - 3. Maintain reinforcing in proper position on chairs during concrete placement.
- F. Cold-Weather Placement: Comply with provisions of ACI 306 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

- G. When air temperature has fallen to or is expected to fall below 40 degrees F (4 degrees C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F (10 degrees C) and not more than 80 degrees F (27 degrees C) at point of placement.
1. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 2. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.
- H. Hot-Weather Placement: When hot weather conditions exist that would impair quality and strength of concrete, place concrete complying with ACI 305 and as specified.
1. Cool ingredients before mixing to maintain concrete temperature at time of placement to below 90 degrees F (32 degrees C). Mixing water may be chilled or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is CONTRACTOR's option.
 2. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedding in concrete.
 3. Fog spray forms, reinforcing steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without puddles or dry areas.
 4. Use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing conditions, as acceptable to ENGINEER.

3.09 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: Provide a rough- formed finish on formed concrete surfaces not exposed to view in the finished Work or concealed by other construction. This is the concrete surface having texture imparted by form-facing material used, with tie holes and defective areas repaired and patched, and fins and other projections exceeding 1/4-inch in height rubbed down or chipped off.
- B. Smooth-Formed Finish: Provide a smooth-formed finish on formed concrete surfaces exposed to view or to be covered with a coating material applied directly to concrete, or a covering material applied directly to concrete, such as waterproofing, damp-proofing, veneer plaster, painting, or another similar system. This is an as-cast concrete surface obtained with selected form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch defective areas with fins and other projections completely removed and smoothed.

- C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike-off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.10 MONOLITHIC SLAB FINISHES

- A. Scratch Finish: Apply scratch finish to monolithic slab surfaces to receive concrete floor topping or mortar setting beds for tile, portland cement terrazzo, and other bonded applied cementitious finish flooring material, and where indicated.
 - 1. After placing slabs, finish surface to tolerances of FF 15 (floor flatness) and F L 13 (floor levelness) measured according to ASTM E 1155. Slope surfaces uniformly to drains where required. After leveling, roughen surface before final set with stiff brushes, brooms, or rakes.
- B. Float Finish: Apply float finish to monolithic slab surfaces to receive trowel finish and other finishes as specified; slab surfaces to be covered with membrane or elastic waterproofing, membrane or elastic roofing, or sand-bed terrazzo; and where indicated.
 - 1. After screening, consolidating, and leveling concrete slabs, do not work surface until ready for floating. Begin floating, using float blades or float shoes only, when surface water has disappeared, or when concrete has stiffened sufficiently to permit operation of power-driven floats, or both. Consolidate surface with power-driven floats or by hand-floating if area is small or inaccessible to power units. Finish surfaces to tolerances of FF 18 (floor flatness) and FL 15 (floor levelness) measured according to ASTM E 1155. Cut down high spots and fill low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.
- C. Trowel Finish: Apply a trowel finish to monolithic slab surfaces exposed to view and slab surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile, paint, or another thin film-finish coating system.
 - 1. After floating, begin first trowel-finish operation using a power-driven trowel. Begin final troweling when surface produces a ringing sound as trowel is moved over surface. Consolidate concrete surface by final hand-troweling operation, free of trowel marks, uniform in texture and appearance, and finish surfaces to tolerances of FF 20 (floor flatness) and FL 17 (floor levelness) measured according to ASTM E 1155. Grind smooth any surface defects that would telegraph through applied floor covering system.

- D. Trowel and Fine Broom Finish: Where ceramic or quarry tile is to be installed with thin-set mortar, apply a trowel finish as specified, then immediately follow by slightly scarifying the surface with a fine broom.
- E. Nonslip Broom Finish: Apply a nonslip broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.
 - 1. Immediately after float finishing, slightly roughen concrete surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with ENGINEER before application.

3.11 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as specified to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
- C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations as shown on drawings. Set anchor bolts for machines and equipment to template at correct elevations, complying with diagrams or templates of manufacturer furnishing machines and equipment.

3.12 CONCRETE CURING AND PROTECTION

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. In hot, dry, and windy weather protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply according to manufacturer's instructions after screening and bull floating, but before power floating and troweling.
- B. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than seven (7) days.
- C. Curing Methods: Cure concrete by curing compound, by moist curing, by moisture-retaining cover curing, or by combining these methods, as specified.
- D. Provide moisture curing by the following methods:
 - 1. Keep concrete surface continuously wet by covering with water.

2. Use continuous water-fog spray.
 3. Cover concrete surface with specified absorptive cover, thoroughly saturate cover with water, and keep continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with a four (4) inch lap over adjacent absorptive covers.
- E. Provide moisture-retaining cover curing as follows:
1. Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least three (3) inches and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
- F. Apply curing compound on exposed interior slabs and exterior slabs, walks, and curbs as follows:
1. Apply curing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen has disappeared). Apply uniformly in continuous operation by power spray or roller according to manufacturer's directions. Recoat areas subjected to heavy rainfall within three (3) hours after initial application. Maintain continuity of coating and repair damage during curing period.
 2. Use membrane curing compounds that will not affect surfaces to be covered with finish materials applied directly to concrete.
- G. Curing Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces, by moist curing with forms in place for the full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.
- H. Curing Unformed Surfaces: Cure unformed surfaces, including slabs, floor topping, and other flat surfaces, by applying the appropriate curing method.
1. Final cure concrete surfaces to receive finish flooring with a moisture-retaining cover, unless otherwise directed.

3.13 REMOVING FORMS

- A. General: Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 degrees F (10 degrees C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form-removal operations, and provided curing and protection operations are maintained.

- B. Formwork supporting weight of concrete, such as beam soffits, joists, slabs, and other structural elements, may not be removed in less than 14 days or until concrete has attained at least 75 percent of design minimum compressive strength at 28 days. Determine potential compressive strength of in-place concrete by testing field-cured specimen's representative of concrete location or members.
- C. Form-facing material may be removed four (4) days after placement only if shores and other vertical supports have been arranged to permit removal of form-facing material without loosening or disturbing shores and supports.

3.14 REUSING FORMS

- A. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-coating compound as specified for new formwork.
- B. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use patched forms for exposed concrete surfaces except as acceptable to ENGINEER.

3.15 CONCRETE SURFACE REPAIRS

- A. Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removing forms, when acceptable to ENGINEER.
- B. Mix dry-pack mortar, consisting of one part Portland cement to two (2) parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing.
 - 1. Cut out honeycombs, rock pockets, voids over ¼-inch in any dimension, and holes left by tie rods and bolts down to solid concrete but in no case to a depth less than one (1) inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water, and brush-coat the area to be patched with bonding agent. Place patching mortar before bonding agent has dried.
 - 2. For surfaces exposed to view, blend white Portland cement and standard Portland cement so that, when dry, patching mortar will match surrounding color. Provide test areas at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.
- C. Repairing Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of ENGINEER. Surface defects include

color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes and fill with dry-pack mortar or precast cement cone plugs secured in place with bonding agent.

1. Repair concealed formed surfaces, where possible, containing defects that affect the concrete's durability. If defects cannot be repaired, remove and replace the concrete.
- D. Repairing Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface tolerances specified for each surface and finish. Correct low and high areas as specified. Test unformed surfaces sloped to drain for trueness of slope and smoothness by using a template having the required slope.
1. Repair finished unformed surfaces containing defects that affect the concrete's durability. Surface defects include crazing and cracks in excess of 0.01 inch wide or that penetrate to the reinforcement or completely through nonreinforced sections regardless of width, spalling, popouts, honeycombs, rock pockets, and other objectionable conditions.
 2. Correct high areas in unformed surfaces by grinding after concrete has cured at least fourteen (14) days.
 3. Correct low areas in unformed surfaces during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete. Proprietary underlayment compounds may be used when acceptable to ENGINEER.
 4. Repair defective areas, except random cracks and single holes not exceeding 1 inch in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose reinforcing steel with at least $\frac{3}{4}$ -inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
- E. Repair methods not specified above may be used, subject to acceptance of ENGINEER.

3.16 QUALITY CONTROL TESTING DURING CONSTRUCTION

- A. General: The CONTRACTOR will employ a qualified testing agency to perform tests and to submit test reports.

- B. Sampling and testing for quality control during concrete placement may include the following, as directed by ENGINEER.
1. Sampling Fresh Concrete: ASTM C 172, except modified for slump to comply with ASTM C 94.
 - a. Slump: ASTM C 143; one (1) test at point of discharge for each day's pour of each type of concrete; additional tests when concrete consistency seems to have changed.
 - b. Air Content: ASTM C 173, volumetric method for lightweight or normal weight concrete; ASTM C 231, pressure method for normal weight concrete; one for each day's pour of each type of air-entrained concrete.
 - c. Concrete Temperature: ASTM C 1064; one (1) test hourly when air temperature is 40 degrees F (4 degrees C) and below, when 80 degrees F (27 degrees C) and above, and one (1) test for each set of compressive-strength specimens.
 - d. Compression Test Specimen: ASTM C 31; one (1) set of four (4) standard cylinders for each compressive-strength test, unless otherwise directed. Mold and store cylinders for laboratory-cured test specimens except when field-cured test specimens are required.
 - e. Compressive-Strength Tests: ASTM C 39; one (1) set for each day's pour exceeding 5 cu. yd. plus additional sets for each 50 cu. yd. more than the first 25 cu. yd. of each concrete class placed in any one day; one specimen tested at seven (7) days, two (2) specimens tested at 28 days, and one (1) specimen retained in reserve for later testing if required.
 2. When frequency of testing will provide fewer than five (5) strength tests for a given class of concrete, conduct testing from at least five (5) randomly selected batches or from each batch if fewer than five (5) are used.
 3. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.
 4. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength and no individual strength test result falls below specified compressive strength by more than 500 psi.

- C. Test results will be reported in writing to ENGINEER, Structural ENGINEER, ready-mix producer, and CONTRACTOR within 24 hours after tests. Reports of compressive strength tests shall contain the Project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-day tests and 28-day tests.
- D. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted but shall not be used as the sole basis for acceptance or rejection.
- E. Additional Tests: The testing agency will make additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by ENGINEER. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.

END OF SECTION

SECTION 03800

WELL ABANDONMENT

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. This section covers the labor, equipment and materials required to furnish and install the cement grout to abandon existing well as specified in the project documents. All work performed shall conform to State of Florida well drilling practices and to AWWA standards for deep wells (AWWA; A100-13).
- B. Obtain all required permits for abandonment of existing well.
- C. The reported well completion details for existing well to be abandoned is as follows:

WELL	Well 14
Year Drilled	--*
Surface Casing	--*
Surface Casing Depth	20"
Outer Casing	--*
Outer Casing Depth	--*
Casing	183'
Casing Depth	183'-288'
Screen Interval	--*
Screen Slot Size	288'
Total Depth	--*

*-- indicates material/depth unknown

- D. The depths and materials presented in the table above are based on reported well completion details. It is the sole responsibility of the CONTRACTOR to perform all tests (including but not limited to preliminary video and geophysical logging) to confirm all materials prior to work.

1.02 SUBMITTALS

- A. Well abandonment permit.
- B. Provide data on all proposed cement supplier, additives and manufacturer's specifications.
- C. Provide bulk cement units weight tickets for verification of cement quantities pumped.

- D. During cementing, provide cement slurry weight data for each grouting stage. A fixed, safe, accessible location to collect samples must be provided to the satisfaction of the ENGINEER. Samples of the cement slurry shall be collected, weighed and recorded. The correct mix ratios shall be maintained. If performed in batches, provide slurry weight and collect sample for each batch mixed. If performed in continuous mixing, provide slurry weights and collect samples at the beginning, middle, and end of pumping for each grouting stage.

PART 2 – PRODUCTS

2.01 GENERAL REQUIREMENTS

The Contractor shall furnish and install all grout and additives as specified.

2.02 PORTLAND CEMENT

Cement grout shall be API class B Portland cement and conform to ASTM C150, Type II standards.

PART 3 – EXECUTION

3.02 WELL ABANDONMENT

- A. Obtain permit for abandonment and any special instructions required by permit.
- B. The CONTRACTOR is solely responsible for the successful execution of grouting. Well abandonment shall be in conformance with all applicable State regulations. The CONTRACTOR shall provide adequate notice prior to cementing to enable the ENGINEER to observe all cementing operations. The CONTRACTOR will remove riser casing and screen from the well as required by AWWA, A100-13 to ensure an effective seal.
- C. Prior to pumping grout, the total well depth will be measured by the CONTRACTOR and reported to the ENGINEER.
- D. Abandonment shall be performed by pumping the cement slurry to the bottom of the well using a tremie pipe. Only neat cement will be used for the abandonment. As per F.A.C. code, use of clean aggregate to bridge cavernous or lost circulation zones shall be allowed, with prior approval, if measurements indicate loss of grout and the borehole or screened portion does not connect two (2) or more aquifers of differing water quality. Prior approval to use aggregate or other material must be obtained by the CONTRACTOR from the South Florida Water Management District/Palm Beach County Health Department and submitted to the ENGINEER.
- E. The base of the tremie pipe will be placed within 3 feet of the total well depth. Cement will be pumped continuously from this depth, filling the well from bottom to top, until cement is visible at the top of the well. After the cement has hardened in

the well, the depth of the hardened grout from the previous grouting stage will be measured in the presence of the ENGINEER.

- F. As was performed for the prior grouting stage, cement will be pumped from the bottom to the top, filling the remaining cased interval, until grout is visible at the top of the well to within three feet below land surface.
- G. Cut surface casing to three (3) feet below land surface and backfill to grade with clean fill.
- H. Remove all existing above ground components within the fenced area, including fence, and transport all ENGINEER/OWNER considered reusable components to the OWNER'S water treatment plant. Properly dispose or recycle all un-usable components.

END OF SECTION

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DIVISION 4

WELL TESTING

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SECTION 04000

PUMPING TESTS

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. This section covers the labor, equipment, and material required to perform pumping tests on the well.
- B. The CONTRACTOR shall be responsible for failure of equipment and materials associated with the pumping test, and for negligence on the part of the CONTRACTOR. In the event of such failure or negligence that results in necessitating re-running of the pumping test, the CONTRACTOR shall repeat the test at his own expense.
- C. Under no circumstances shall the test pumping equipment create a vacuum within the well casing.
- D. The CONTRACTOR shall manage discharge water as described below and in **SECTION 05000**.

1.02 SUBMITTALS

- A. Provide certificates of calibration for flow meters to be used for flow measurement by the ENGINEER.
- B. Submit a pump curve prior to installation for approval by the ENGINEER.
- C. Provide manufacturer product data and calibration certificates, for ENGINEERS approval, of all data loggers and transducers used for testing.
- D. Submit to the ENGINEER following completion of pumping testing recovery, all pressure transducer and data logger data from pump test background, pumping, and recovery periods.

PART 2 – PRODUCTS

2.01 TEST PUMP

- A. Furnish the necessary instruments and pumping equipment capable of pumping at a steady rate ranging from 200 gpm to 2,000 gpm with a throttling device and gate valve so that the flow rate can be adjusted as directed by the ENGINEER.
- B. Furnish a gate valve, orifice plate, and manometer to control and measure discharge.

- C. Provide and install two (2), 1-inch I.D. drop tubes between the pump column and casing, from the water level access fitting at the wellhead to 5 feet above the pump intake or as directed by the ENGINEER. The drop tube shall enable the ENGINEER to manually measure water levels without interference of the pump, pump column, or electronic water level monitoring equipment.
- D. The CONTRACTOR shall provide a pressure transducer, data logger, and logger well cap seal for water level measurement prior to, during, and after pump testing. The CONTRACTOR shall coordinate with the ENGINEER to determine the type of transducer and logger required for the anticipated drawdown, static water level logging periods, pumping periods, and recovery periods. The ENGINEER shall determine data recording frequency and format. Data shall be precise, accurate, and match manual water level measurements. Imprecise or inaccurate data shall be rejected requiring pumping tests and monitoring to be repeated at the CONTRACTOR's expense. Electronic data shall be submitted to the ENGINEER. The data logger will be installed in the well a minimum of 12 hours prior to and remain a minimum of 12 hours following the pumping tests for the purpose of collection of background and recovery water level data.

2.02 FLOW METER

- A. Provide a calibrated flowmeter with direct measurement and a totalizer to measure flow. Anticipated metered flows shall range from 200 to 2,000 gpm. Certification shall be no older than 60 days prior to notice to proceed and attest to a precision of 95 percent or greater for the range of the meter.

2.03 DISCHARGE PIPING

- A. Provide all pipe, fittings, and valves required to transmit discharge water from the pump to the Formation Water Disposal System identified in **Section 05000**.

PART 3 – EXECUTION

3.01 PUMPING TESTS

- A. Install and operate the pumping test equipment. Pumping tests shall consist of one 6-hour step drawdown test (2 hours/step) and one 4-hour constant rate test, at rates determined by the ENGINEER. The CONTRACTOR shall determine the appropriate engine and gate valve settings for the desired pumping rate prior to the test date in order to achieve a constant rate as soon as possible after the start of each test/test step.
- B. Sufficient time shall be permitted for the ENGINEER to collect a static water level in the well. The static water level shall be measured by the CONTRACTOR prior to the start of pumping each day.

- C. The CONTRACTOR shall assist the ENGINEER with connections required to connect the ENGINEER's provided silt density index (SDI) testing equipment to the pump discharge. The CONTRACTOR shall provide, operate, and maintain a clean auxiliary pump capable of maintaining 35 pounds per square inch (psi) for SDI testing. The auxiliary pump shall be plumbed to the well discharge for sampling and testing. The CONTRACTOR shall provide fittings and fabricate connections as needed to enable the ENGINEER to perform the SDI tests through the duration of the pumping test.

3.02 DISCHARGE WATER

- A. Discharge water generated during rehabilitation shall be discharged to the CONTRACTOR's formation water disposal system. Settling and treatment of formation water to be discharged is the CONTRACTOR's responsibility and shall be in accordance with all applicable regulations and **Section 05000**. The CONTRACTOR shall set up and maintain discharge water transmission piping, as required in **Section 05000**. Discharge water shall always be contained and under control by the CONTRACTOR.
- B. The CONTRACTOR is solely responsible, by any and all methods necessary, to meet the requirements for discharge of water. If the CONTRACTOR fails to fulfill proper requirements for the discharge of water, the CONTRACTOR is responsible for complete restoration of the discharge location to the original condition at no cost to the OWNER.

END OF SECTION

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SECTION 04200

WELL FACILITY DISINFECTION AND WATER QUALITY SAMPLING

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. Provide labor, equipment, and materials to disinfect the Production Well pursuant to the requirements of AWWA C654; including pump facilities, wellhead, and piping according to the requirements of AWWA C-601.
- B. Provide labor, equipment, and materials to perform analytical tests on the well. The CONTRACTOR shall subcontract an analytical laboratory to perform sampling and analytical services. The laboratory shall be certified to perform the scope of work by the Florida Department of Environmental Protection and local health department regulations.
- C. Bacteriological analytical testing must match method preferred by OWNER.
- D. Provide labor, equipment, and materials to perform analytical tests including (1 complete set) Chapter 62-550 Florida Administrative Code (FAC) drinking water analysis on each production well (including asbestos). The CONTRACTOR will subcontract an analytical laboratory to perform the scope of work by the Florida Department of Environmental Protection and Palm Beach County Health Department.
- E. All materials used in well construction, including but not limited to well casings, screens, gravels, risers, centralizers, drilling water, pump and motor, must be cleaned and disinfected prior to installation in the well. Passing of bacteriological clearance is the sole responsibility of the CONTRACTOR.

1.02 SUBMITTALS

- A. State and County certifications for proposed laboratory. Bacteriological analytical testing method must match method preferred by OWNER.
- B. Provide sampling reports, disinfection forms, completed chain of custody forms, and analytical results for all consecutive sampling events. Laboratory reports shall be submitted within 30 days of receipt of samples by the laboratory.
- C. MSDS for all products to be used for disinfection a minimum of 15-days prior to commencement of disinfection.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Free chlorine liquid or gas.
- B. Sodium Hypochlorite.
- C. Steriline.

PART 3 – EXECUTION

3.01 WELL FACILITY DISINFECTION

- A. Provide notice to ENGINEER 48 hours in advance of treatment. ENGINEER may be present for disinfection and must have proper notification prior to work.
- B. Post warning notices and secure the well facility from unauthorized access or use. Secure the area.
- C. The CONTRACTOR shall disinfect the wells as soon as construction of the wells and cleaning procedures have been completed. The CONTRACTOR shall carry out adequate cleaning procedures immediately preceding disinfection where evidence indicates that normal well construction and development work have not adequately cleaned the wells. All oil, grease, soil, and other materials, which could protect bacteria from disinfectants shall not be allowed in the hole. If evidence indicates that this material has entered the hole, it shall be thoroughly removed. The cleaning operation is to be carried out by pumping and swabbing only. Where test pumping equipment is to be used, such equipment shall be thoroughly scrubbed, or otherwise cleaned of foreign material.
- D. Mix a sufficient concentration of chlorinated water solution to maintain 200 parts per million chlorine residual throughout the well, pump, and added piping facilities. The pump and motor shall not be exposed to chlorinated water solutions with concentrations above 500 ppm. The recommended pH of chlorine solutions is between 5.5 and 6.8. Any well components sensitive to free chlorine or disinfecting agents will be disinfected and installed separately to prevent damage.
- E. Disinfection procedures shall ensure that the disinfecting agent is uniformly applied throughout the entire water depth of the wells, without relying on subsequent mechanical or surging action for dispersing the disinfectant. For this purpose, the disinfecting agent shall be furnished or prepared in liquid form and placed in the well through a hose or tremie of sufficient length to extend to the bottom of the well. The disinfecting agent shall be applied through the hose, which is to be raised and lowered, to achieve uniform distribution of the solution throughout the well.

- F. All portions of the well above the water shall be maintained in a damp condition with water containing the required concentration of disinfecting agent for a period of not less than 20 minutes. The disinfecting agent shall be left in the well for a period of at least 24 hours.
- G. After a 24 hour or longer contact period, the well is to be pumped to clear it of the disinfecting agent. The disposal point for the purged water shall be selected so as to minimize potential damage to aquatic life or vegetation.
- H. All water used for treatment shall be potable and from an ENGINEER approved source.
- I. The complete disinfection program and methods followed, especially if materially different from those specified, shall be in accordance with directives of the Florida Department of Environmental Protection (FDEP), Division of Health and all methods employed shall have their approval. Final approval of the bacterial samples shall be received from the FDEP and Palm Beach County Health Department prior to the time that the system is placed into operation.
- J. Prepare and submit '*Surficial Aquifer Well Disinfection Reporting Form*' for each disinfection.

3.02 BACTERIOLOGICAL ANALYSIS

- A. Purge detectable chlorine solution from the well facility.
- B. Collect ten (10) consecutive water samples at an approved location starting 48 hours after disinfection procedure. Not less than 8 hours will elapse between sample collection events. No more than two (2) samples shall be collected per day. Sample collection and handling procedures shall be in accordance with a State approved laboratory quality assurance plan by an experienced sampling technician.
- C. Any system disinfection (or any component thereof) sample collection, or analysis, required after an unsuccessful first attempt, shall be conducted at the CONTRACTOR's expense.

3.03 WATER QUALITY ANALYSIS

- A. Purge a minimum of five (5) well volumes of formation water from the surficial aquifer production well. The CONTRACTOR shall coordinate with the ENGINEER and OWNER for water quality analysis.
- B. Collect one set of water samples from the well for drinking water analysis. Sample analysis shall include all drinking water parameters required in Florida Department of Environmental Protection, Chapter 62-550 FAC, and Article 14, Section B of the Palm Beach County Unified Land Development Code, latest revision. Sample

collection and handling procedures shall be in accordance with a State approved laboratory quality assurance plan by an approved sampling technician.

- C. Water samples shall be analyzed by an approved independent certified laboratory in accordance with state and local regulations.

END OF SECTION

SECTION 04400

PRODUCTION WELL ACIDIZATION

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, equipment, and materials required for acidization.
- B. The CONTRACTOR shall provide superintendents in the field with acidization experience who meet the minimum requirements as outlined in the Bidder's questionnaire form.
- C. The CONTRACTOR shall provide redundancy in onsite field equipment required to safely perform acidization.
- D. The CONTRACTOR is advised that acid treatment and associated setup includes pumping acid into the well, monitoring of the well, and treatment and disposal of spent acid until discharge water returns to a consistent and repeated pH measurement of 6.5 or higher. Once discharge water has returned to an acceptable pH and specific conductance, the CONTRACTOR shall perform a specific capacity test to determine whether additional acid treatment is required. The post acidization specific capacity test shall be performed at a rate equal to the pre-acidization specific capacity test and prior to setting up for pump development. Acidization treatment shall be considered complete upon inspection and approval by the ENGINEER. All costs associated with acid treatment including the purging of spent acid water and the initial specific capacity test are to be included in the unit price for acid treatment setup. The CONTRACTOR shall not bill against pump development nor pump testing for time spent flowing the well to remove spent acid and/or return to an acceptable pH and specific conductance.
- E. Upon completion of successful acid treatment as accepted and approved by the ENGINEER, the CONTRACTOR shall remove the acid treatment setup and continue to subsequent rehabilitation tasks including well development. The CONTRACTOR shall allow for up to five (5) work days, from the time that spent acid has been removed from the well and performing specific capacity testing, for the ENGINEER to determine whether additional acid shall be injected.

1.02 SUBMITTALS

- A. Acidization header drawing including location of acid line, water injection line, gas bleed line, associated pressure gauges, and other access ports as needed to complete the scope of work.

- B. Prior to acidization, CONTRACTOR shall provide plan for acidization, temporary acid storage, containment and safety plan for approval by ENGINEER.
- C. Provide all chemical manufacturer information including NSF Standard 60 Certification and the Material Safety Data Sheets (MSDS) for all chemicals proposed for use in the well.
- D. Provide acid transportation manifests and load weight tickets.

PART 2 – PRODUCTS

2.01 ACID

- A. Furnish ENGINEER approved quantity of 20 Baume strength, 32 percent hydrochloric acid (food service grade) per well.
- B. The CONTRACTOR shall ensure proper design and containment of acid pumps, hoses, fittings, and storage tanks and secondary containment to prevent spillage.
- C. Place chemical resistant PacTank (or equivalent) portable spill containment berm on ground where chemical transports and tanks are to be spotted. Additional containment berm shall be placed along hose routes beneath hoses and fittings.

2.02 SODIUM BICARBONATE

- A. Furnish sufficient sodium bicarbonate to manually distribute around the wellhead, acid hoses, valves, and truck to neutralize any acid in the event of a spill.
- B. After acidization, prepare a sodium bicarbonate solution to raise the pH of the well development water to an acceptable level for disposal (pH between 6.5 and 8.5). pH testing shall be performed by the CONTRACTOR under the direction of the ENGINEER.

PART 3 – EXECUTION

3.01 PROCEDURE SEQUENCE

- A. The CONTRACTOR shall perform acid treatment of the production wells as designated by the ENGINEER.

- B. Each well shall be treated at a strength determined by the ENGINEER between a minimum strength of 3% hydrochloric acid and a maximum strength of 32% (20 Baume) hydrochloric acid. The CONTRACTOR shall include in the acidization plan the proposed procedure for adjusting the acid strength onsite. The plan shall include proposed methods to minimize degassing of the acid during mixing. The blend of hydrochloric acid outlined in the CONTRACTOR's acidization plan shall be based on requested blend ratios per the ENGINEER. The actual blend rate shall be dependent on the individual well response to acid procedure in the field.
- C. The amount and strength of acid used may be adjusted based on results and individual well conditions as determined by the ENGINEER.
- D. The CONTRACTOR shall furnish and be capable of installing a sufficient length of steel acid tubing inside the well to place the base of tubing at any depth (down to the total depth of the well), as directed by the ENGINEER. Final length of drop tubing will be determined by the ENGINEER primarily based on the review of the pre-acidization video survey. The drop tubing shall be attached to a temporary CONTRACTOR provided water tight assembly. The CONTRACTOR provided temporary acidization wellhead assembly shall have access for drop tubing, a two-inch water injection line, a gas only relief line at the top of the wellhead, fluid relief line, and a pressure gage fitting.
- E. All access ports shall be fitted with isolation valves. The wellhead shall provide a tight seal up to 100 psi. Provide and install a pressure gage on the wellhead to monitor pressure at the wellhead.
- F. Set up systems and controls required for acidization including, but not limited to temporary acid storage, containment, formation water treatment and disposal system, tanks, equipment, etc. required for acidization, monitoring, purging, neutralization and control as outlined in the CONTRACTOR's approved plan. The formation water treatment system shall be adequately sized so that acid can be removed from the well in one (1) day. The CONTRACTOR shall coordinate with the ENGINEER for inspection and approval of the setup prior to acidization of the well.
- G. Pump the ENGINEER approved quantity and strength of acid through the drop tubing. The pumping method shall not introduce ambient air into the well. At all times the wellhead pressure shall be monitored and shall not exceed 50 psi. All equipment and materials must be approved by the ENGINEER.

- H. It is the intent of these specifications to allow for two methods of acidizing. One method includes injecting “high strength” (32%) acid within a short duration and another method includes continuously injecting “weaker acid” for a long duration (up to 24 hours of continuous injection). The ENGINEER will coordinate with the CONTRACTOR on the initial acid method to be implemented prior to the CONTRACTOR setting up the acid equipment. The ENGINEER may require a different method based on the results of the first acid injection, should additional acidization be deemed necessary. The CONTRACTOR shall be capable of injecting acid at an approximate rate of 200 gpm (for a high strength acid) and be capable of injecting at a low rate for a duration up to 24 hours (for a lower strength acid).
- I. Provide adequate water supply to pump up to three (3) well casing volumes of chase water, plus the drop tubing capacity. This volume may be more or less depending on conditions and the acid reaction. The chase water shall be metered and pumped into the well simultaneously through the drop tubing and through the casing. The pumping rate shall be a minimum 200 gpm or as designated by the ENGINEER. Chase water shall be potable water, chlorinated to 1 mg/l available chlorine. Pump equipment must be capable of overcoming maximum pressure at wellhead if pressure increases during acidization procedure.
- J. If a second acid pump is to be performed, the CONTRACTOR shall purge the spent acid from the well between acid pumps until pH of the purged water is no less than 6.5, or as directed by the ENGINEER. The CONTRACTOR shall also perform a specific capacity test between acid pumps.
- K. Following acidization, the CONTRACTOR shall remove spent acid continuously and purge water shall have a pH of 6.5 within one (1) day of completing the acid injection.
- L. Casing pressures shall be monitored continuously by the CONTRACTOR for at least 12 hours following acid treatment. If required, excess gas pressure shall be bled off as needed. A gas relief pipe shall be extended a minimum of 50 feet away from the work area, downwind from any potential immediate receptor.
- M. Using the drop tubing, a water sample shall be collected by the ENGINEER for analysis 12 hours after acid treatment. If required by the ENGINEER, the CONTRACTOR shall pump additional chase water into the well using the same method as Paragraph I.
- N. Discharge well through the formation water disposal connection until water is clear with a pH of 6.5 or higher. Water with a pH below 6.5 shall be contained and treated using a sodium bicarbonate solution to neutralize residual acid or be removed from the site. Treated water shall only be discharged from the holding tank after approval by the ENGINEER. All discharge to the outfall location shall comply with all applicable discharge permits. CONTRACTOR shall remove spent acid within one (1) day.

- O. Purging of spent acid shall be considered complete when discharge water from the well is clear with a pH of 6.5 or higher, the specific conductance of the well is comparable to pre-acid treatment specific conductance values, and a specific capacity test has been conducted on the well to determine if additional acid treatment is necessary. The specific capacity test shall be performed using a calibrated flowmeter to measure flow rates. The CONTRACTOR shall also furnish and implement a secondary method to measure flow rates as approved by the ENGINEER. An acceptable secondary method could include an orifice weir and manometer, volumetric method and/or other method approved by the ENGINEER.

END OF SECTION

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DIVISION 5

GROUNDWATER

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SECTION 05000

FORMATION WATER DISPOSAL SYSTEM

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. Provide labor, equipment, and materials to furnish, assemble, and maintain pumps and transmission piping as required to transmit formation water from the CONTRACTOR's construction wellhead to CONTRACTOR settling tanks and to approved surface water discharge locations adjacent to or near the well sites.
- B. The CONTRACTOR is prohibited from discharging formation water to the ground surface at the drilling site. All formation water discharged from the well must be contained at all times and be directed to the designated discharge location using the CONTRACTOR's formation water disposal system.
- C. Formation water shall be piped to the Lake Worth Drainage District (LWDD) L-8 canal, north of the well site. Formation water discharge must meet LWDD and Florida Department of Environmental Protection (FDEP) Generic Discharge Permit criteria for discharge.
- D. The CONTRACTOR shall be responsible for all permitting including, but not limited to, LWDD ROW and FDEP generic discharge permits.
- E. If the discharge location described above is not capable of handling maximum discharge rates as described in **Section 03500**, the CONTRACTOR shall utilize settling systems and storage tanks to settle solids and reduce turbidity prior to discharge to the final outfall location. The CONTRACTOR shall employ all means necessary to minimize, to the greatest extent possible, erosion and turbidity at the settling location and final outfall location.
- F. The CONTRACTOR is solely responsible, by any and all methods necessary, to meet the requirements for discharge of water. If the CONTRACTOR fails to fulfill proper requirements of discharge water, the CONTRACTOR is responsible for complete restoration of the discharge location to the original condition at no cost to the OWNER.
- G. The CONTRACTOR is solely responsible for the removal of discharged solids from any discharge location and restoration of discharge locations to their original condition to the satisfaction of the ENGINEER.
- H. The CONTRACTOR shall cease water discharge operations if weather conditions impede available capacity of the discharge location.

1.02 SUBMITTALS

- A. Submit a Best Management Practices plan including a schematic plan of all equipment, piping, silt and turbidity barriers planned for use during water discharge for approval by the OWNER and ENGINEER.
- B. Submit an in-line flow meter calibration report to the OWNER and ENGINEER indicating calibration within the last 60 days.
- C. Obtain a LWDD ROW and submit permit confirmation to the ENGINEER.
- D. Obtain FDEP Generic Discharge Permit (62-621.300(2) FAC) and provide confirmation to the ENGINEER.

PART 2 – PRODUCTS

2.01 EQUIPMENT

- A. The CONTRACTOR shall provide and maintain a transfer pump(s) capable of pumping the total volumes and anticipated maximum rates of discharge from the well as defined in **Section 03500**. The pump shall be used for transfer of water from the settling tanks to the designated discharge location.
- B. The CONTRACTOR shall provide polyethylene (fusion welded), or approved equal, transmission piping, couplings, valves, reusable fittings, and other items needed to assemble, operate, and maintain the formation water disposal system. Multiple vessels shall be connected and sequential to provide sufficient retention time for solids separation prior to fluid discharge. Vessel layout and arrangement must be located within the designated construction area specified on the project drawings.
- C. The CONTRACTOR shall furnish and install an in-line flow meter, calibrated within the last 60 days. The flow meter shall have a flow rate indicator and totalizer and be capable of measuring discharge rates at the maximum flow rate of the sediment control system in place.
- D. The CONTRACTOR shall provide, operate, and maintain as many pumps as required to transmit water from the well to the outfall location. The pumps shall be capable of pumping at the maximum rates for the elements of work contemplated herein.
- E. The CONTRACTOR shall employ all means necessary to minimize to the greatest extent possible erosion, turbidity at the settling location and final outfall location, and containment of discharge solids, including, but not limited to, the use of de-silting/de-sanding separators, settling tanks, vacuum truck for disposal of all drilling and well testing fluids, and turbidity barriers at the outfall location. The CONTRACTOR shall use an energy diffuser at the formation water disposal location

to aid in minimizing erosion. The CONTRACTOR shall minimize impact to OWNER's facilities and fully restore all areas used for formation water discharge.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Review final discharge location with ENGINEER to confirm proper location and to minimize impact to site erosion.
- B. The CONTRACTOR shall be responsible for applying for, obtaining, and monitoring for an FDEP Generic Permit for Discharge of Ground Water from Dewatering Operations per 62-621.300(2) for discharge of water to all State water bodies including application fee. No water quality sampling is required in association with this application; however, flow (in GPD) must be measured (actual or estimated) and recorded once per week when discharging. The flow rate cannot exceed the design flow rate of the sediment control system in place. A record of weekly flow and a copy of the permit must be kept on-site for FDEP inspection. Although not required by the FDEP, the CONTRACTOR is required to monitor and measure turbidity throughout development to ensure turbidity is less than 29 NTU prior to discharge.
- C. The CONTRACTOR shall use Best Management Practices (BMPs) and all means necessary to settle and clean discharge water prior to discharge to the State Water bodies, including but not limited to use of the settling tanks and floating turbidity barriers properly installed in receiving water body. Well drilling activities shall be adjusted accordingly, and corrective actions taken prior to any exceedances of regulatory requirements at the State Water bodies with respect to the CONTRACTOR's discharge water. The CONTRACTOR shall employ all methods necessary to ensure the discharge water at the discharge point shall be clear, have a pH of no less than 6.0, less than 29 NTU turbidity, and meet FDEP requirements for Generic Permit for Discharge of Ground Water from Dewatering Operations 62-621.300(2).
- D. Discharge directly into the outfall without settling systems shall not be permitted.
- E. The CONTRACTOR shall review and comply with Lake Worth Drainage District (LWDD) permits and conditions, when applicable.

3.02 CONSTRUCTION

- A. Assemble the transmission piping in accordance with the project drawings. Use high-density polyethylene (HDPE), fusion welded pipe, or other approved equivalent, that conforms to AWWA C906 or AWWA C905 for temporary formation water disposal piping. All fittings shall be fusion welded HDPE or approved equal.

- B. The CONTRACTOR shall be responsible for providing and maintaining site access and road crossings for the access roads and associated appurtenances. The CONTRACTOR shall be responsible for maintaining access through the LWDD ROW at all times.
- C. Discharge activities shall comply with specifications for all roadway and traffic controls. The CONTRACTOR shall take necessary precautions for the protection of the WORK and the safety of the public.

3.03 OPERATION

- A. The formation water disposal piping and/or hosing shall be monitored continuously for leaks and possible problem areas. A thorough inspection of the complete pipeline and/or hosing shall be conducted daily prior to startup. Repairs shall be made prior to use.
- B. The CONTRACTOR shall coordinate discharge formation water activities with the ENGINEER and OWNER. Operation of the Formation Water Disposal System shall be in accordance with appropriate FDEP permit regulations. If non-compliance occurs, discharge shall be discontinued until the monitored non-compliance levels are below permitted limits. The time required to comply will be considered incidental to the Work and shall not result in additional compensation to the CONTRACTOR.
- C. Pumps shall be capable of pumping water at the anticipated maximum rates of flow. Throttling devices shall be provided on the pumps to adjust the pumping rates accordingly. Valves shall be provided as needed to shut off flow and stop gravity drainage, if necessary.
- D. Cleaning and disposal of discharge solids within the settling system shall be removed using a vacuum truck and disposed of in accordance with local, state, and federal regulations. Removal of these materials shall be considered incidental to the Work and shall not result in additional compensation to the CONTRACTOR.
- E. The formation water disposal system may require modifications based on site specific activity and associated quality and quantity of discharge water generated. The CONTRACTOR shall not be compensated for these modifications and the costs should be included in the Lump Sum cost associated with Pay Item Formation Water Disposal System.
- F. Cleaning of outfall canals shall be performed by the CONTRACTOR following completion of construction activities. The costs should be included in the Lump Sum cost associated with Pay Item Formation Water Disposal System.

END OF SECTION

DIVISION 11

EQUIPMENT

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SECTION 11214

SUBMERSIBLE WELL PUMPS

PART 1 – GENERAL

1.01 DESCRIPTION

- A. The CONTRACTOR shall furnish all labor, materials, equipment and supervision for the installation of one (1) submersible well pump as shown on the drawings and as specified herein. Pumps shall be capable of operating in conjunction with a Variable Frequency Drive (VFD). Materials and equipment shall include, but not be limited to: turbine bowl units, strainer, pump column, well head, surface plate and submersible motor, and Manufacturer-supplied electrical pump control panel, completely factory tested. Pump shall be provided by the CONTRACTOR for assembly and installation at the well site. The pump shall be controlled by the proposed control panel, to be furnished and installed by the CONTRACTOR. The pump motor controllers as required for the pump operation and protective devices as specified shall be provided by the pump Manufacturer in accordance with the materials description provided below for coordination by the CONTRACTOR.
- B. The hydraulic conditions for the submersible well pump specified in Section 11214 will be determined following testing after the well is constructed. The final submersible well pump hydraulic conditions (flow, total dynamic head and efficiency) and motor horsepower will be determined by the ENGINEER following testing of the well. In the event of a significant change in the submersible well pump following construction and testing of the well, the contract price may be adjusted accordingly via a change order.

1.02 QUALITY ASSURANCE

- A. The pump shall be assembled and configured in the Manufacturer's primary location, and tested in the Manufacturer's certified test facility for performance, and certified by the Manufacturer. Pump service representative shall be available at the site within 24 hours after notification by the OWNER.

1.03 SUBMITTALS

- A. Shop Drawings - Submit shop drawings and product data for equipment furnished under this section in accordance with the General Conditions.
- B. Operating and Maintenance Manuals - Furnish Operation and Maintenance Manuals in accordance with **Section 01300 - Submittals**, and **Section 01730 - Operation and Maintenance Manuals**.

- C. Equipment Installation Certificate - The Manufacturer shall provide a written report, through the CONTRACTOR and endorsed in writing by the CONTRACTOR, certifying that the equipment has been properly installed, checked and is ready for placement into routine permanent service.

1.04 GUARANTEE

- A. Submit written agreement from Manufacturer providing the Manufacturer's warranty statement on the pump and motor. The Manufacturer's warranty period shall be for two (2) years after the final acceptance of the equipment by the OWNER. The Equipment Manufacturer shall guarantee that the equipment furnished is suitable for purpose intended and free from defects of design, material and workmanship. In the event the equipment fails to perform as specified due to equipment defects, the Manufacturer shall promptly repair or replace the defective equipment without any cost to the OWNER (including handling and shipment costs).

1.05 PRODUCT DELIVERY

- A. The equipment shall be factory assembled components delivered undamaged to the site. Care shall be taken so that no damage occurs during the shipping and unloading of the pump. They shall be capable of being set in place and field connected with minimal field assembly.

1.06 MANUFACTURER'S START-UP SERVICES

- A. Furnish services of Manufacturer's technical representative to inspect the completed installation, correct or supervise correction of any defects or malfunctions, and instruct operating personnel in proper operating and maintenance procedures as described in Part 3 of this Section.

1.07 CERTIFIED FACTORY PERFORMANCE TESTS REQUIRED

- A. All pumps furnished for this project require the Manufacturer to performance test the pump bowl assembly in the factory per the requirements of the Hydraulics Institute (HI), and provide certified pump performance curves to the ENGINEER for their approval, prior to the pump being shipped to the project site for installation. HI guidelines shall be the criteria for pump performance testing and approval.

PART 2 – PRODUCTS

2.01 SUBMERSIBLE WELL PUMPS

- A. Acceptable Manufacturer: The submersible well pump shall be designed and furnished in accordance with the latest Hydraulic Institute and AWWA Specifications. The pumping systems shall be provided by:
1. National Pump Company (Gorman-Rupp), J11MC – 3 Stage.
 2. SIMFLO Pump, SW12M – 2 Stage.
 3. Goulds Pump, VIS-BATM 9TNHC, 6-Stages
- B. Pump Operating Characteristics:

	Well No. 14
1. Size of well (Final Casing)	16 in. – PVC SDR 17 (Min. ID – 13.807")
2. Depth of well	200 feet ±
3. Standing water level below top of well	10 feet ±
4. Water level below the top of the well at rated capacity (estimated)	85 feet ±
5. Pumping head or pressure above the top of the well	55.5'
6. Total Dynamic Head (4 plus 5) at the design point	140.5'
7. Capacity of pump (approximate)	750 gpm
8. Water temperature	68-72°F
9. Length of drop pipe (excluding bowl unit and motor)	120 feet
10. Minimum efficiency at design point	77%
11. Motor horsepower	40
12. Pump speed	1,800 rpm

- C. Motor: Motor shall conform to the National Electrical Manufacturer's Association (NEMA) specifications for submersible motors, Latest Edition. The motor thrust bearing shall be sized to carry the weight of all rotating parts plus the hydraulic thrust of the pump regardless of the direction of rotation. The thrust bearing shall have sufficient capacity to permit the pump to operate for short periods with the discharge valve closed. Motor shall be of the squirrel cage induction type, suitable for use with "soft starts". The motor shall be capable of continuous operation under water at the conditions specified. The power output shaft shall be 416 Stainless Steel (SAE 51416) or equivalent. All materials and fasteners exposed to well water shall be of 316L Stainless Steel. The motors shall be 460 VAC, 3 Phase, 1,800 RPM, with 3,500 pounds of down thrust, and 8.53 inch O.D. Motors shall have a 1.15 service factor.
- D. Pump Motor Coupling: The pump motor coupling shall be constructed of 316 Stainless Steel and shall be capable of transmitting the total torque of the pump, regardless of the direction of rotation.
- E. Pump Bowl Assembly: The pump bowl assembly shall include bowls made of close-grained cast iron, free from blow holes, sand holes or other detrimental defects, with a tensile strength of 30,000 psi. Each bowl shall have vitreous enameled flow passages. Each intermediate bowl shall be constructed with a bronze bearing and a neoprene bearing to support the impeller shaft. The bowl unit shall be capable of withstanding a hydrostatic pressure equal to twice the pressure at the rated capacity of 1.5 times the shutoff head, whichever is greater. The impeller shaft shall be made of 416 Stainless Steel. Each impeller shall be made of aluminum bronze, ASTM B-584, C95200 alloy, accurately machined and finished, and dynamically balanced and highly polished. Each impeller shall be securely fastened to the shaft with a 304 series Stainless Steel taper lock bushing. The bowl shall include a side seal at the impeller skirt. The bowl unit shall include a bearing to carry the momentary upthrust encountered at start-up. The bowl unit shall include a Stainless Steel, metal guard to protect the motor cable from abrasion during installation. Pump bowl and screen assembly shall be dimensionally capable of installation within the Final Well Casing as detailed in the Pump Operating Characteristics Table including capacity for installation with small diameter drop pipes per design.
- F. Interconnector: The interconnector shall be made of 316 Stainless Steel and shall couple the bowl unit to the motor. The interconnector shall include a bronze sleeve bearing with a length to shaft diameter ratio of at least 3:1 to protect the motor from radial loads. This bearing shall be protected from sand and grit by a labyrinth-type sand slinger. The interconnector shall completely enclose the upper motor end bell to protect the coupling and motor seal from abrasives. The interconnector shall include a suction screen which has a net open area at least four times the area of the eye of the impeller. The screen shall be made of 316 Stainless Steel.

- G. Well Head: Refer to the well head detail on the construction drawings.
- H. Drop Pipe: The drop pipe shall be 8-inch PVC Certa-Lok Pipe of the indicated length. Provide proper couplings and adapters to connect to surface plate and submersible pump. Furnish one (1) spare section and coupling for each pump, delivered to the OWNER at start-up. Furnish one each Certa-Lok pipe adapter required to the OWNER as critical spare parts requirements for this project.

Submersible Cable: The submersible cable shall be sized to limit the voltage drop to less than one volt at the motor's terminals. Three (3) or six (6) separate conductors shall be furnished as required to fit through the pump discharge surface plate and its conduit connector. Each conductor shall be PVC jacketed and the conductors shall be included in a single jacketed, flat assembly. The conductor insulation shall be water and oil resistant, suitable for continuous immersion. The cable shall be factory installed, and shall be connected directly to the motor without splices. The length of cable to be furnished for each well pump shall be a minimum of 150 feet. The cable shall be supported from the column every ten feet by Stainless Steel strap clamps provided by the pump Manufacturer. No field splices will be allowed. The pump Manufacturer shall supply two spare splice kits to the OWNER as critical spare parts requirements for this project.

- J. Safety Cables: Two safety cables shall be provided and shall be 316 Stainless Steel wire rope (7 x 19 Stainless Steel, U.S. Rigging Part No. W-12-010, 5/16 inch diameter). The length of individual cable to be furnished for each well pump shall be a minimum of 150 feet. The cables shall be supported from the column every 10 feet by Stainless Steel clamps provided by the pump Manufacturer. Wire rope clips shall be 316 Stainless Steel, U.S. Rigging part no. K-34-10.
- K. Pump Check Valve: The check valve for the submersible well pump shall be Techno Check valves manufactured by Cameron. Double-door valve shall have a 316 Stainless Steel body, internal parts, and EPDM seals. Valve shall have a Certa-lok 316 Stainless Steel adapter grooved by IPS Certa-Lok connection. The check valve shall be sized such that additional nipples are not required for the operation of the check valve.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Install pump, drive unit and accessories in accordance with plans, final shop drawings and Manufacturer's data.
- B. All work shall be performed and all materials shall be in accordance with the National Electrical Code and applicable local regulations and ordinances. The CONTRACTOR shall, at his own expense, arrange for and obtain all necessary

permits, inspections, and approval by the proper authorities in local jurisdiction of such work.

3.02 INSPECTION AND TESTING

- A. Upon completion of installation, the CONTRACTOR, in the presence of the ENGINEER and a qualified Manufacturer's representative, shall test the system to insure the proper operation to the satisfaction of the ENGINEER.
- B. Operating personnel shall be trained in operation and maintenance of equipment at start-up. Instruction shall be given in operation, service, adjustments and routine maintenance. Recommended spare lists and maintenance schedules shall be provided.
- C. Start-up of well pumps and final sampling cannot occur until CONTRACTOR has completed installation of control panels and associated electrical work to each well site.
- D. All pump assemblies shall be performance tested in the original Manufacturer's factory, with data sheets and a plotted performance curve submitted to the ENGINEER for their approval, prior to the shipment of the pump to the project site. Pumps shall be tested from shut off to run out with a minimum of ten (10) points tested. Test results shall be certified by a professional ENGINEER employed by the Manufacturer and the test curves shall be signed by that ENGINEER, bearing their professional seal.
- E. Pump tests shall be performed by a calibrated test motor and data shall be provided to show pump performance in flow, head, power requirements, and efficiency. Only performance tests conducted in the Manufacturer's facility will be acceptable.

3.03 DISINFECTION

- A. The well shall be disinfected in accordance with AWWA A100-97 and **SECTION 04200 – Well Facility Disinfection and Water Quality Sampling**. Bacteriological samples shall be taken and acceptable results obtained, in accordance with Florida Department of Environmental Protection requirements. All testing shall be paid for by the CONTRACTOR.
- B. The well head and below grade piping shall be disinfected and tested from the pump flange to the connection point to the existing raw water main. Disinfection shall be in accordance with AWWA C651, C652, C653, and C654. Samples and testing shall be in accordance with Palm Beach County Health Department requirements.

END OF SECTION

DIVISION 13

**EQUIPMENT INSTRUMENTATION AND
CONTROLS**

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SECTION 13200

UNDERGROUND LP STORAGE AND DISTRIBUTION

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Pipe, fittings appurtenances for liquid-petroleum gas (LP gas) distribution at individual sites
- B. Underground LP gas storage tanks

1.2 REFERENCES

- A. NFPA 54-National Fuel Gas Code
- B. NFPA 58-Liquefied Petroleum Gas Code
- C. FBCFG - Florida Building Code Fuel Gas
- D. AASHO T180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in) Drop
- E. ANSI, as referenced in A-C, above
- F. ASME - Boiler and Pressure Vessel (BPV) Code, Section VIII, Division 1, Unfired Pressure Vessels and Section IX, Welding
- G. ASTM, as referenced in A-C, above
- H. AWS, as referenced in A-C, above
- I. AWWA C105 –Polyethylene Encasement for Ductile Iron Pipe Systems

1.3 SUBMITTALS FOR REVIEW

- A. **Section 01300 – Submittals Procedures**, procedures for submittals
- B. Product Data: Provide data on tanks, pipe materials, fittings, valves, and accessories.
- C. System Design: Provide an isometric drawing of the entire proposed system.
- D. Provide radiographic examination records for the tank welds.

1.4 SUBMITTALS AT PROJECT CLOSEOUT

- A. **Section 01780 - Contract Closeout**, procedures for submittals.
- B. Record actual locations of tanks, pipes, valves, fittings, accessories, and invert elevations.
- C. Identify and describe unexpected variations in subsoil conditions and discovery of uncharted utilities.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with referenced standards, gas supplier requirements, and the authority having jurisdiction.
- B. All welding will comply with AWS and ASME codes.
- C. Pipe and tank installation will comply with NFPA 54, 58, and the FBC-Fuel Gas.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of **Section 01600 – Material and Equipment**.
- B. Deliver and store valves and appurtenances in shipping containers with labeling in place.

PART 2 – PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Design the LP Gas system to allow a maximum working pressure of 5-psig or less in the gas distribution pipe network. (The LP Gas distribution network commences immediately downstream of the pressure regulator at the LP Gas storage tank.)
 - 1. Design the LP Gas distribution network to convey only LP Gas.
 - a. Entry of liquefied LP Gas into the distribution network from the tank will be precluded by safety devices, including drips, and regulators
 - 2. The design operating pressure for pipe, fittings, and appurtenances in the distribution network will be 125 psig.
- B. Design the LP Gas delivery manifold (between delivery vehicle connection and storage tank), supply manifold (between tank and first stage regulator), attached appurtenances, and LP Gas storage tank for an operating pressure of 250 psig.
 - 1. Smaller tanks may require higher pressures; refer to NFPA 58.

2. Rate the valve that separates the distribution system from the storage system for the higher operating pressure if the valve is a bulkhead during field pressure testing.
- C. Design documents specify size, material, system configuration, and location for all tanks, piping, fittings, and appurtenant devices.
 1. Gas Demands: Determine the size of the gas distribution network, appurtenant items, and gas storage tank. Notify OWNER/ENGINEER if additional tank capacity is necessary for min. 3-days continuous operation at 75% load.

2.2 PIPE, FITTINGS, AND APPURTENANT DEVICES

A. Buried locations:

1. Buried shall mean in direct contact with soil on all or some surfaces.
2. Pipe shall be wrought iron, black or galvanized steel, brass, copper, or polyethylene and comply with applicable standards.
3. Tubing shall be steel, brass, copper, or polyethylene and comply with applicable standards.
4. Joints on pipe; provide welded, threaded, compression type using mechanical fittings, or fused, fittings and appurtenances matching the pipe material per applicable standards.
 - a. Flanged joints require suitable asbestos, metal or other fire resistant material.
 - b. Anode-less risers will transition between buried polyethylene pipe or tubing to an acceptable material at exposed locations.
5. Fittings for pipe and tubing shall be steel, brass, copper, malleable iron, ductile iron, or polyethylene and comply with applicable standards.
6. Prophylaxis for buried metal pipe will comply with AWWA C105, which requires a continuous polyethylene jacket using 10-mil polyethylene tubing.
 - a. Provide Prophylaxis only where investigation of the soil type indicated that excess corrosion of the pipe and fittings will occur.
 - b. District may accept other pipe and fitting materials depending on a life cycle cost evaluation.
7. Manufacture appurtenant items from materials that match the materials identified above or from proprietary materials specifically formulated for the intended service.
8. Do not use cast iron for pipe, fittings, or appurtenances.

B. Exposed locations:

1. Means in direct contact with atmosphere and on all surfaces in an open or enclosed location.
2. Pipe shall be wrought iron, black or galvanized steel, brass, or copper and comply with applicable standards.
3. Tubing shall be steel, brass, or copper and comply with applicable standards.
4. Provide a welded or threaded joint on pipe, fittings, and appurtenances, matching the pipe material per applicable standards.
5. Fittings for pipe and tubing shall be steel, brass, copper, malleable iron, ductile iron and comply with applicable standards.
6. Manufacture appurtenant items from materials matching the materials identified above or from proprietary materials specifically formulated for the intended service.
7. Do not use cast iron for pipe, fittings, or appurtenances.
8. Do not use polyethylene in exposed locations.

2.3 UNDERGROUND PROPANE STORAGE TANKS

- A. Manufacture the tank in accordance with ASME BPV Code, Section VIII Division 1.
- B. Code stamp and provide a partial radiography of tank to ensure soundness of welded joints.
- C. Fabricate tank with steel and weld all joints in accordance with procedures qualified under ASME BPV Code, Section IX.
- D. Openings in the tank will be sufficient to attach fill and draw piping, and all required vents and safety appurtenances.
- E. Properly label the tank in accordance with ASME Code requirements.
- F. Interior tank coating shall be a factory applied suitable multi-component system formulated for exposure to LP Gas in its liquid and gaseous forms.
- G. Exterior tank coating shall be a factory applied suitable multi-component system formulated for exposure to underground conditions in general and specific conditions at the site.

2.4 BEDDING AND COVER MATERIALS

- A. Bedding: Fill as specified in **Section 02225 – Trenching, Bedding, and Backfill**.
- B. Cover: Fill as specified in **Section 02270 – Erosion, Sedimentation, and Dust Control**.

2.5 PUMPS, VAPORIZERS AND GAS-AIR MIXERS

- A. Avoid the use of gas-air mixers, transfer pumps, and vaporizers.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions under provisions of **Section 01360 – Pre-construction Audio-Video Documentation**.
- B. Verify that building service connection and utility gas main size, location and invert are as indicated.

3.2 PIPE PREPARATION

- A. Cut pipe ends square, ream pipe and tube ends to full pipe diameter, and remove burrs.
- B. Bevel plain end ferrous pipe over 2" diameter, thread ferrous pipe 2" diameter and under.
- C. Remove scale and dirt from inside and outside of the pipe before assembly.
- D. Prepare piping connections with threading and unions.
- E. Install proper gaskets on flanged joints.
- F. Use pipe dope on threaded joints.

3.3 PIPE BEDDING

- A. Excavate pipe trench in accordance with **Section 02225 – Trenching, Bedding, and Backfill** for work of this section.
 - 1. Hand trim excavation for accurate placement of pipe to elevations indicated.
- B. Place bedding material at trench bottom, level fill materials in one continuous layer not exceeding 8" compacted depth, compact to 98%.
- C. Backfill around sides and to top of pipe with cover fill tamped in place and compacted to 98%.

- D. Maintain optimum moisture content of bedding material to attain required compaction density.

3.4 PIPE INSTALLATION

- A. Maintain separation of gas line from sewer and water piping in accordance with code.
- B. Route piping in straight line, use fittings to change direction of the pipe run.
- C. Install piping to conserve space and not interfere with use of site space.
- D. Install piping to allow for expansion and contraction without stressing pipe or joints.
- E. Install fittings, valves, and appurtenances per plans.
- F. Establish elevations of buried piping to ensure not less than 36" of cover in non-traveled areas and 48" of cover in driveways and parking areas.
- G. Lay pipe on bedding.
- H. Wrap couplings and fittings of steel pipe with polyethylene tape and heat shrink over pipe when prophylaxis is required.
- I. Install locator wire and warning markers along with all plastic pipe used to carry any type of fuel gas.
 - 1. Locator wire shall be single or multi-strand copper and insulated with a yellow high molecular weight jacket having a minimum thickness of 30 mils.
 - 2. Install locator wire in the same trench as the pipe approximately 6" over the pipe crown.
 - 3. Locator wire shall be looped or terminated at all warning markers and be accessible for attachment of impressed radio signal locating devices by removing a cap or access port located near the warning marker.
 - 4. Locator wire shall be terminated near the gas meter and near the tank access manhole and be accessible by removing a cap or access port.
 - 5. Warning markers shall be provided at all points where the pipeline changes direction, at intervals not exceeding 1,000 feet, at all locations where the gas pipe enters School District Property, and at all locations where the gas pipe enters a building.
 - 6. Warning markers shall be embedded at least 36" into the ground and terminate between 12" and 36" above the ground unless within the limits of a sport field.
 - a. Other provisions will be made within sport field limits.

- 7. Warning markers shall be yellow and purchased from a company regularly engaged in the manufacture of utility line markers.
- J. Install warning tape 12" above crown of buried gas pipe.
 - 1. Tape shall be detectable with magnetic location devices.
- K. Backfill trench in accordance with **Section 02225 – Trenching, Bedding, and Backfill**.
- L. Center and plumb valve box over valve, then set box cover flush with finished ground surface.
 - 1. Prevent shock or stress from being transmitted through valve box to valve or pipe.

3.5 BUILDING SERVICE CONNECTIONS

- A. Provide sleeve in foundation wall for gas service main.
 - 1. Seal sleeve annulus around carrier pipe with suitable material that is compatible with carrier pipe and will produce a watertight, durable seal.
- B. Anchor service main to exterior surface of foundation wall using approved anchors and pipe supports or straps.
- C. Install secondary service regulator adjacent to building wall in specified location.
- D. Install secondary service regulator and riser pipe to prevent undue stress upon service pipe.
- E. Provide regulator vent with rain and insect proof opening, terminating away from building openings.

3.6 UNDERGROUND PROPANE TANK LOCATION

- A. Tank location shall provide required separation from property lines, buildings and ignition sources for the tank and all vents, safety devices, and fill location.
- B. Protect tank location from vehicular traffic with fencing, bollards, landscaping, or other approved method.
- C. Fill location shall be accessible by LP Gas delivery trucks.
- D. Protect tank access manholes from vehicular traffic and protection shall meet District Standards.
- E. Avoid multi-tank installations, but if multi-tank installations are necessary provide proper separation distances between the tanks per NFPA 54.

- F. Coordinate tank location with location of fire protection system water delivery devices to ensure that adequate water will be available for fire suppression.

3.7 UNDERGROUND PROPANE TANK INSTALLATION

- A. Install tank with anchors that make the tank non-buoyant under conditions of high ground water.
- B. Install tank with a minimum of 12" cover.
- C. Over-excavate hole for tank installation. Set anchor system in excavation and backfill with suitable material to bottom elevation of tank.
- D. Set tank in prepared excavation and attach required anchoring system, pipe, or accessories prior to backfilling.
- E. Backfill around tank until only the crown of the tank is exposed.
- F. Place access manholes at the fill and draw locations.
 - 1. Locate the connections to ASME containers installed underground within a substantial dome, housing, or manhole with a cover.
 - a. Install underground containers so all connections for hoses and any opening through which there can be a flow from pressure relief devices or pressure regulator vents are located above the normal maximum water table.
 - b. Provide proper venting for such manholes or housings.
 - c. The area of ventilation openings shall equal or exceed the combined discharge areas of the pressure relief devices and other vent lines discharging into the manhole or housing.
 - 2. The ASME code label will be visible and legible from inside an access manhole.
- G. Provide tank with all required vents, pressure relief devices, safety devices, and withdrawal and filling connections per applicable regulations.
 - 1. These devices and connections should include, but not necessary be limited to, relief valve, shut off valve on all pipe connections, pressure regulator, pressure gage, drip, and removable protection cover on access manholes.

3.8 PROTECTION

- A. Provide bollards or chain link fence for protection around all above ground gas system components and buried tanks.

- B. The Contractor shall install protective fence or bollards for all natural and LP gas components, even when others furnish those components.

3.9 FIELD QUALITY CONTROL

- A. Section **01400 - Quality Control**, field inspection and testing.
- B. Perform compaction testing in accordance with ASTM D1557.
- C. Pressure-test all gas lines
 - 1. Pipe joints shall be visible during the test.
 - 2. Test medium will be air or an inert gas; do not use oxygen as a test medium.
 - 3. Use the greater of; the system's design operating pressure or $1\frac{1}{2}$ times the maximum working pressure, but not less than 3-psig.
 - 4. Test duration shall be not less than $\frac{1}{2}$ hour for each 500 ft³ of pipe volume or fraction thereof.
 - a. When testing a system with a volume less than 10 ft³, the test duration shall be a minimum of 10 minutes.
 - b. Maximum duration of the test not to exceed 24 hours
 - 5. The piping system shall withstand the test pressure specified without showing any evidence of leakage or other defects.
- D. All failing work shall be removed or repaired and be re-tested until passed with no additional cost.

END OF SECTION

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DIVISION 15

MECHANICAL

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SECTION 15103

LINE STOPS

PART 1 – GENERAL

1.01 THE REQUIREMENT

- A. The CONTRACTOR shall provide line stops, bypass piping, equipment supports, pipe supports, restraint and appurtenances, complete and operable and in accordance with the Contract Documents.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02660 – Pipe and Fittings - General

1.03 SUBMITTALS

- A. For all potable water applications, provide a signed certification statement indicating all interior components and linings that come into contact with the conveyed product shall comply with the requirements of NSF/ANSI 61.
- B. The CONTRACTOR shall furnish submittals in accordance with the Section entitled “Submittals”.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Line stopping shall consist of a mechanical plug inserted into an existing pipe through a penetration created by a tapping machine. Line stopping requiring shutdowns of the pipeline are not acceptable.
- B. The plug shall temporarily isolate the flow in the line to allow cutting into the existing pipeline and permanent capping of the existing pipe.
- C. For all potable water applications, all interior components and linings of the insert valve that come into contact with the conveyed product shall comply with the requirements of NSF/ANSI 61.

D. Prestressed Concrete Cylinder Pipe

1. Work requiring cutting, capping, tapping, and/or modification of existing prestressed concrete cylinder pipe (PCCP) in any manner shall be performed by specialty contractors with a minimum of ten (10) years experience performing work on PCCP type utilities and shall be capable of providing a reference list for recent projects involving PCCP type utilities including a minimum of fifteen (15) projects.

2.02 MATERIALS

- A. The fitting shall be a full encirclement, pressure retention type slit tee consisting of two steel weldments: an upper flanged outlet saddle plate and a lower saddle plate. The saddle plates shall be matched and marked with some method of identification to ensure proper alignment of the two-part fitting in the field.
- B. The upper flanged outlet saddle plate shall consist of a saddle plate with a minimum thickness of 0.375-inches, outlet nozzle and flange. The interior of the saddle plate shall be grooved to retain a gasket which shall seal the saddle plate to the exterior of the existing potable water main. The lower saddle plate shall be a minimum 0.375-inch thickness.
- C. The nozzle of the fitting shall be fabricated from steel pipe (ASTM A234). The nozzle shall be bored to accommodate the plugging head. A circular shoulder shall be machined into the nozzle to seal the circumferential gasket carried on the plugging head.
- D. The outlet of each fitting shall be machined from a 150 lb. forged steel flange (ASTM A181 or A105) or from pressure vessel steel plate (ASTM A285, Grade C); flat faced and drilled per ANSI B16.5. Suitable independently operated locking devices shall be provided in the periphery of the flange to secure the completion plug.
- E. Facing and drilling of the blind flange shall be compatible with the outlet flange. Minimum blind flange thickness shall be that of AWWA Specification 207, Class D.
- F. The completion plug shall be machined and shall contain circumferential grooves to receive the locking device from the flanged outlet and to contain a compressible O-ring to seal pressure tight against the bore of the flanged outlet.
- G. EPDM Gaskets shall be molded from elastomer compounds resistant to compression settings and compatible within a temperature range of 32 to 140 degrees Fahrenheit.
- H. Bolting materials shall be carbon steel in accordance with ASTM A307 with dimensions conforming to ANSI B18.2.1.

- I. Line stop machinery shall consist of a cylindrical plugging head that contains a flat, expandable elastomer sealing element. The plugging head is advanced into and retracted from the main by means of a linear actuator. When retracted, the plugging head and carrier are housed in an adapter, bolted tightly between the tapping valve and the actuator.
- J. The sealing element shall be monolithically molded from a suitable polyurethane compound. The element shall be flat in a plane perpendicular to the flow in the main. The minimum thickness of the element shall be 4-inches. The bottom of the element shall be semi-circular to conform to the bore of the existing water main.
- K. The diameter of the plugging head shall be slightly smaller than the flanged nozzle of the fitting. The plugging head shall have a circumferential gasket seal against the shoulder in the flanged nozzle. The gasket shall also seal against the sealing element to prevent bypass around the plugging head.

2.03 ACCEPTABLE SUPPLIERS

- A. Tapping Services and line stopping services shall be provided by the following service providers, or approved equal:
 - 1. Rangeline
 - 2. EA Tapping
 - 3. T.D. Williamson, Inc.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. CONTRACTOR shall clean (through the use of power wire brush, grinding tools or other non- destructive methods) the exterior of the potable water main to ensure any debris, corrosion deposits, or other surface irregularities that could interfere with proper seating and sealing of the fitting to the water main are removed.
- B. CONTRACTOR shall provide thrust and support blocking for the tapping machinery and the existing water main prior to proceeding with installation of the line stopping equipment.
- C. CONTRACTOR shall furnish and install bypass piping (up to 50 feet in length total) between installed line stop units to maintain water main functionality. The bypass piping shall be allowed to be one pipe diameter size smaller than the existing water main that the line stop is being performed on. CONTRACTOR shall furnish and install adequate support, bracing and restraint on the bypass piping.

END OF SECTION

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DIVISION 16

ELECTRICAL

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SECTION 16000

ELECTRICAL GENERAL REQUIREMENTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General Conditions, apply to all the Work specified in the Electrical 16000 Sections.

1.02 LAWS, PERMITS, FEES AND NOTICES

- A. Secure and pay all permits, fees, and licenses necessary for the proper execution of the Work. Submit all notices and comply with all laws, ordinances, rules and regulations of any public agency bearing on the Work. CONTRACTOR shall be licensed Electrical CONTRACTOR in the county of construction.

1.03 DEPARTURES

- A. If any departures from the Contract drawings or specifications are deemed necessary, details of such departures and the reasons therefore shall be submitted to the ENGINEER for advance written approval, prior to departure.

1.04 GUARANTEES

- A. Furnish written guarantee covering all materials, workmanship, labor, and equipment for a period of one (1) year from the date of acceptance as described in the Contract General Conditions.
- B. The OWNER reserves the right to operate and use all materials and equipment failing to meet the requirements of the Contract documents until such unacceptable materials and equipment are replaced or repaired to the satisfaction of the ENGINEER.

1.05 AS-BUILT INFORMATION

- A. A set of "red-lined" electrical drawings shall be carefully maintained at the job site. Actual conditions are to be put on the drawings in red on a daily basis so the drawings will continuously show locations and routes of cable trays, conduits, pull-boxes, circuit numbers, and other information required by the ENGINEER.

1.06 JOB SITE VISIT

- A. Visit the project site before submitting a bid. Verify all dimensions shown and determine the characteristics of existing facilities which will affect performance of the Work, but which may not be shown on drawings or described within these specifications.

1.07 CLEANUP

- A. Maintain a continuous cleanup during the progress of the Work and use appointed storage areas for supplies. The premises shall be kept free from accumulations of waste materials and rubbish.

1.08 CUTTING AND PATCHING

- A. Cut and prepare all openings, chases and trenches required for the installation of equipment and materials. Repair, remodel and finish in strict conformance with the quality of workmanship and materials in the surroundings. Obtain written permission from the ENGINEER for any alterations to structural members before proceeding.

1.09 MAINTENANCE

- A. Render all necessary measures to ensure complete protection and maintenance of all systems, materials, and equipment prior to final acceptance. Any materials or equipment not properly maintained or protected to assure a factory new condition at the time of final acceptance shall be replaced immediately at no additional cost to the OWNER.

1.10 WATERPROOFING

- A. Whenever any Work penetrates any waterproofing, seal and render the Work waterproof. All Work shall be accomplished so as not to void or diminish any waterproofing bond or guarantee.

1.11 TESTS

- A. Conduct an operating test of equipment prior to the ENGINEER's approval. The equipment shall be demonstrated to operate in accordance with the requirements of these specifications. The tests shall be performed in the presence of the ENGINEER or an authorized representative. The electrical CONTRACTOR shall furnish all instruments, electricity and personnel required for the tests.

1.12 POWER SHUT DOWNS COORDINATION

- A. CONTRACTOR shall coordinate at well sites any power shut downs to the station and control panel. All power shut downs shall be kept to a minimum.

1.13 SUMMARY OF ELECTRICAL WORK

- A. Provide all labor, materials, tools, supplies, equipment, and temporary utilities to complete the Work shown on the drawings and specified herein. All systems are to be completely installed and fully operational. Specifically, the Work includes, but is not necessarily limited to:
 - 1. Demolition of existing well 14 equipment, including existing meter, main disconnect, control panel, meter, raceways, pipe stand, and the like, see drawings and other specifications for other information.

2. Coordinate demolition work with the Owner.
3. Power coordination with FPL for disconnect/reconnect of existing 480V aerial service
4. Provide power & control raceways, pull boxes as required, and conductors as called out on drawings.
5. At well 13 provide modifications as indicated on the drawings to add an ATS switch, and related raceways to the existing equipment.
6. Provide for well 14 Power distribution including new service, meter, main, well control panel with VFD, PLC and RTU equipment. Refer to the VFD specification and the I&C systems, there is a base bid (hard wired communications between VFD and PLC, and Alternate bid item where Ethernet communications between VFD and PLC is used instead)
7. Provide and install outdoor generator on generator pad, and ATS equipment. Generator shall be properly bolted down into generator concrete slab and isolation rubber pads, 1/2" thick minimum shall be used at each tiedown or bolting point to isolate the generator bottom from slab and humidity and water to prevent corrosion of tank.
8. Grounding and lightning protection of equipment and field instruments, surge protection.
9. Installation and connection of field I&C instruments and equipment. Provide new signal conduits between ATS equipment and generator as indicated on the plans.
10. Installation of RTU Antenna for Control Panel radio telemetry.
11. Temporary and permanent power service as required.
12. Testing and startup of equipment.
13. Training and provide as-built, and O&M final shop drawings and manuals.

1.14 CODES AND STANDARDS

- A. General Applicable provisions of the following codes and standards and other codes and standards required by the State of Florida and local jurisdictions are hereby imposed on a general basis for electrical Work (in addition to specific applications specified by individual Work sections of these specifications):
 1. U.L.: Electrical materials shall be approved by Underwriters' Laboratories, Inc. This applies to materials which are covered by U.L. standards. Factory applied labels are required.
 2. National Electrical Code.

3. OSHA: Standards of the Occupational Safety and Health Administration are to be complied with.
4. NEMA: National Electrical Manufacturers Association Standards are to be met wherever standards have been established by that agency and proof is specifically required with material submittals for switchboards, motor control centers, panelboards, cable trays, motors, switches, circuit breakers and fuses.
5. ANSI: America National Standards Institute
6. NESC: National Electrical Safety Code
7. Any and all local codes.

1.15 ELECTRICAL TEMPORARY FACILITIES

- A. The electrical CONTRACTOR shall include in his bid the cost of furnishing, installing, maintaining, and removing all materials and equipment required to provide temporary light and power to perform his Work during construction and until Work is completed.
- B. Safety
 1. All reasonable safety requirements shall be observed to protect workers and the public from shock and fire hazards. Ground fault interrupters shall be employed in accordance with codes.
 2. Ground wires are required in all circuits. Ground poles are required on all outlets. All metallic cases shall be grounded.
 3. Raintight cabinets shall be used for all equipment employed in wet areas.

1.16 EXCAVATING FOR ELECTRICAL WORK

- A. General – Not needed

1.17 ELECTRICAL SUBMITTALS

- A. Submittals for Approval
 1. Refer to Contract General Conditions for additional instructions on the General Conditions and this section, the more stringent requirements shall apply.
 2. Shop Drawings and Manufacturer's data sheets are required for all electrical materials.
 3. Submittals will not be accepted for partial systems. Submit all materials for each specification section at one time. Submittals must

be arranged, correlated, indexed, and bound in orderly sets for ease of review.

4. Samples are to be supplied for any substitute as requested by the ENGINEER.

5. The following numbers of copies are required:

Shop drawings	6 sets
Samples	1 each
Manufacturer's data	6 sets
Certifications	6 sets
Test reports	6 sets
Warranties/Guarantees	6 sets

6. Submit shop drawings, Manufacturer's data, and certifications on all items of electrical Work prior to the time such equipment and materials are to be ordered. Order no equipment or materials without approval from the ENGINEER. Submittals will not be accepted for partial system submittals; submit all data at one time. Submittals will be promptly returned, approved, approved as noted, or not approved. Items "approved as noted" must be changed to comply with the ENGINEER's comments and need not be resubmitted for "approved" status. Items "not approved" are not suitable, requiring complete new submittals.
7. Time delays caused by rejection of submittals are not cause for extra charges to OWNER or time extensions. CONTRACTOR shall be responsible for investigating existing systems or shop drawings in order to fully integrate the new equipment into the system. Adequate shop drawings may or may not exist for all existing systems.

B. Operation and Maintenance Manuals

1. Submit to the ENGINEER five (5) copies of all Manufacturer's service installation and operation manuals, instructions, and bulletins. These manuals shall be subject to review of the ENGINEER. If acceptable they shall be forwarded to the OWNER. If not acceptable they shall be returned to the CONTRACTOR for revision and resubmittal. Manuals shall contain, but not be limited to, the following:
 - a. Brief description of system and basic features.
 - b. Manufacturer's name and model number for all components in the system.
 - c. List of local factory authorized service companies.
 - d. Operating instructions.
 - e. Maintenance instructions

- f. Trouble shooting instructions
- g. Manufacturer's literature describing each piece of equipment.
- h. Power and control wiring diagrams
- i. Parts lists

1.18 ELECTRICAL PRODUCTS

A. Standards Products

- 1. Unless otherwise indicated in writing by the ENGINEER, the products to be furnished under this specification shall be the Manufacturer's latest design. Units of equipment and components of the same purpose and rating shall be interchangeable throughout the project. All products shall be newly manufactured. Defective equipment or equipment damaged in the course of installation or test, shall be replaced or repaired in a manner meeting with the approval of the ENGINEER at no additional expense to the OWNER.

B. Delivery, Storage and Handling

- 1. Deliver products to project properly identified with names, model numbers, types, grades, compliance labels and similar information needed for distinct identification; adequately packaged or protected to prevent deterioration during shipment, storage and handling. Store in a dry, well ventilated, indoor space, except where prepared and protected by the Manufacturer specifically for exterior instructions for storage locations.

C. Substitutions

- 1. Comply with instructions in the Contract General Conditions and Special Conditions and obtain pre-approval of the ENGINEER regarding substitutions.

1.19 SKILLED ELECTRICAL CRAFTSMEN

- A. CONTRACTOR shall employ and staff the project with skilled Craftsmen experienced in the project requirements.
- B. As a minimum, a Licensed Journeyman Electrician shall be present on the project at all times.
- C. Other skilled persons shall be present as the project requirements dictate including Manufacturers representatives, start-up technicians, ENGINEERs, etc.

1.20 DRAWINGS AND SPECIFICATIONS

- A. Refer to the drawings for additional requirements. There are requirements indicated on the drawings which are not indicated in the specification.
- B. Bidders, suppliers, equipment vendors, General CONTRACTOR, Sub Contractors, and other similar entities are required to read all the Contract documents including drawings and specifications.

1.21 SCHEMATIC NATURE

- A. Plan views are schematic in nature and meant to show the schematic arrangement of equipment and conduit.
- B. CONTRACTOR shall provide the OWNER/ENGINEER with an 11 x 17 (min) drawing (to scale) of the final layout of the equipment and conduit routing for approval. This drawing shall include measurements for all NEC required clearances and separations for equipment and conduit. Refer to other spec sections for conduit routing requirements.

1.22 APPROVED SHOP DRAWINGS

- A. Use approved shop drawings for lay out of equipment. The Contract documents will vary from the shop drawings. Inform the ENGINEER immediately if there are lay out issues or inadequate space for equipment or clearances. Land conduits in openings of enclosures per the approved shop drawings, do not use the Contract drawings.
- B. Housekeeping pads, equipment racks and the like shall be based on the approved shop drawings.

1.23 CLEARANCES

- A. It shall be the CONTRACTOR's responsibility to meet N.E.C. clearances about equipment.

1.24 ROUTING

- A. Conduit routing is schematic in nature. Conduit routing is shown for clarity on the Contract drawings. See other spec sections for additional conduit routing requirements.

1.25 FUTURE FACILITIES

- A. Where future facilities are indicated, conduit routing shall account for such facilities.
- B. Where conduits are installed as spares or for future equipment, these conduits shall include pull string, any conduits installed exposed along a concrete pad or slab, shall be capped.

1.26 DRAWINGS FURNISHED BY CONTRACTOR

- A. OWNER shall be provided all CONTRACTOR furnished drawings. Such drawings include, but are not limited to: Control panels, MCC.s, switch boards, instrumentation details, redline mark-up of the Contract drawing and the like.
- B. Drawings shall be furnished for review and approval. No materials shall be provided without the ENGINEER's approval.
- C. Final drawings shall be furnished or as field modified accounting for any changes made during start up.

1.27 HOMERUNS

- A. CONTRACTOR shall coordinate home runs between plan views. Where any conduit is shown in any plan view it shall be installed the entire length may be required.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 16001

ELECTRICAL DEMOLITION

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

- A. CONTRACTOR shall take precautionary and safety measures to assure the safety of his personnel. All wires shall be identified and disconnected from power sources before removal.
- B. CONTRACTOR shall coordinate with FPL, the OWNER, and ENGINEER.
- C. The general demolition scope shall also include the following minimum requirements whether indicated on drawings or not.
 - 1. Before demolition, CONTRACTOR shall verify that the equipment is no longer needed or that the demolition will not adversely effect plant operation.
 - 2. Removal of all exposed conduit. Removal of all wire within raceways, cabinets, outlet boxes, trenches and the like associated with equipment shown to be removed on plans.
 - 3. Removal of all hangers and support systems which are not needed as a result of the demolition.
 - 4. CONTRACTOR shall cover all openings as a result of demolition and removals including but not limited to the following:
 - a. Control Panel, junction boxes, and enclosures
 - b. slab and masonry openings.
 - c. Cut conduit, instrumentation line, etc. flush with slab, fill with concrete, patch, and paint holes in walls.
- D. Operational Systems
 - 1. To the fullest extent possible, all demolition may be carried out with the existing well site no operational for the duration of the demolition, the drilling of the new well, and later the installation of the new equipment. The Contractor shall replace and restore to original condition areas near the well site that the contractor may disturb.
 - 2. Where required wiring passes through or uses enclosures or raceways shown for demolition. CONTRACTOR shall provide raceways and wire as required to keep those systems operational.
 - 3. CONTRACTOR shall remove existing equipment in an orderly, planned and coordinated fashion. All replacement equipment shall be on site and ready to install immediately after the removal of existing equipment.

4. Where demolition interrupts the normal automatic control of the station, CONTRACTOR shall provide full time manual control until automatic control is restored unless otherwise directed by the OWNER. CONTRACTOR shall obtain permission of the OWNER before removing automatic control.
- E. CONTRACTOR shall be required to visit the site before bid to ascertain the magnitude of the demo Work. The drawings indicate the minimal effort. Any electrical raceway associated with any equipment shall be demolished. The drawings do not call out every item of Work. All the existing electrical equipment, metercan, main disconnect, well control panel, as well as field instruments within the well 14 site shall be demolished and replaced with new as called out on the drawings. Unless otherwise indicated by the drawings or noted elsewhere by the specifications.
- At well 13 demolition is for the segment of conduit and wires between the main disconnect and the control panel so the new ATS at well 13 may be installed.
- F. The OWNER shall select equipment to be salvaged to the OWNER. Salvaged equipment shall be provided to the OWNER onsite.
- G. Provide demolition in support of any civil or mechanical Work as may be required. See civil and mechanical documents.
- H. All demolished equipment and rubble shall be properly disposed of including having the Contractor pay all disposal fees related with the removed rubble and equipment.

END OF SECTION

SECTION 16050

BASIC MATERIALS AND METHODS

PART 1 – GENERAL

1.1 SUBMITTALS

- A. Submit data sheets on all items per Section 16000.

1.2 CODES AND STANDARDS

- A. General applicable provisions of the following codes and standards and other codes and standards required by the State of Florida and local jurisdictions are hereby imposed on a general basis for electrical work (in addition to specific applications specified by individual work sections of these specifications):
 - 1. U.L.: Electrical materials shall be approved by the Underwriters' Laboratories, Inc. This applies to materials which are covered by U.L. standards. Factory applied labels are required.
 - 2. National Electrical Code
 - 3. OSHA: Standard of the Occupational Safety and Health Administration are to be complied with.
 - 4. NEMA: National Electrical Manufacturers Association Standards are to be met wherever standards have been established by that agency, and proof is specifically required with material submittals for switchboards, motor control centers, panelboards, cable trays, motors, switches, circuit breakers, and fuses.
 - 5. ANSI: American National Standards Institute
 - 6. NESC: National Electrical Safety Code

PART 2 – PRODUCTS

2.1 GROUNDING MATERIALS

- A. All ground rods shall be 20-foot 5/8" copperclad, unless otherwise indicated.
- B. Ground wires shall be soft drawn copper sized per National Electrical Code, unless otherwise indicated.

2.2 CONDUIT

A. PVC Conduit

1. PVC conduit shall be Schedule 80 or Schedule 40 unless otherwise noted and shall be U.L. approved. Comply with Federal Spec WC-1094 and NEMA TC-.

B. Flexible Conduit

1. All flexible conduits shall be liquidtight, made of corrosion resistant plated steel with extruded polyvinyl covering and watertight connectors.

C. Refer to schedule in drawing for location requirements.

2.3 CABLE, WIRE AND CONNECTORS

A. 600 Volt Power Wiring

1. Individual conductors shall be rated for 600 volts and shall meet the requirements below:
 - a. Conductors shall be stranded.
 - b. All wire shall be brought to the job in unbroken packages and shall bear the date of manufacturing; not older than 12 months.
 - c. Type of wire shall be THWN except where required otherwise by the contract drawings.
 - d. No wire smaller than No. 12 gauge shall be used unless specifically indicated.
 - e. Conductor metal shall be copper.
 - f. All conductors shall be meggered after installation. Megger testing shall exceed 50 mega ohms.
2. Multi-conductor cables shall be type TC UL 1277 THWN, PVC jacketed 600V with conductor and quantities as indicated.

B. Instrumentation Cable

1. Process instrumentation wire shall be 16 gauge twisted pair, 600 V., aluminum tape shielded, polyvinyl chloride jacketed, as manufactured by the American Insulated Wire Co., Eaton Corp., or equal. Multiconductor cables with individually shielded twisted pairs shall be installed where indicated.

C. Control Cable

1. Multiconductor control tray cable shall be stranded 14 gauge, 600 V. THWN insulated overall shielded with PVC jacket, as manufactured by the American Insulated Wire Co., Eaton Corp., or equal.

2.4 TERMINATIONS AND SPLICES (600 VOLTS AND LESS)

- A. Terminations of power cable shall be by means of U.L. approved connectors. All connectors shall meet U.L. 486B and shall be compatible with the conductor material.
- B. Terminate all control and instrumentation cable with fork type compression lugs.
- C. Splicing of power, control, or instrumentation wiring will not be allowed except by written approval of the Engineer. Where splicing is allowed, splices shall be made with approved compression connectors, and splices shall be made waterproof regardless of location.

2.5 BOXES

- A. Boxes for wiring devices, switches and receptacles installed outdoors shall be weatherproof fiberglass with polycarbonate cover plates.

2.6 PULL BOXES AND SPLICE BOXES

A. Location

1. Units used outdoor or in a damp or corrosive environment shall be 316 ss or fiberglass unless otherwise indicated on plans.
2. Units used indoors in dry and clean environments shall be NEMA 1.

B. Size

1. Units shall be sized per NEC as minimum.

C. Required Units

1. Plans depict minimum requirements. Additional units shall be provided as may be required to complete raceway systems.

2.7 MOUNTING AND SUPPORTING ELECTRICAL EQUIPMENT

- A. Furnish and install all supports, hangers, and inserts required to mount fixtures, conduits, cables, pull boxes, and other equipment.
- B. Support system used indoors in clean, dry and air-conditioned areas shall be galvanized steel.

- C. Perforated straps and wires are not permitted for supporting electrical devices. Anchors shall be of approved types.
- D. All supports, hangers, hardware, etc. used outdoors or in in non-air-conditioned indoor areas or in hazardous areas shall be non-ferrous, corrosion resistant or 316 stainless steel. Supports shall be selected to avoid galvanic reactions. Support devices shall be submitted for approval.
- E. Provide trapeze, bridge systems or wall bracketed cantilevered system to support the raceway system.
- F. Spacing of support systems shall be per NEC. Provide spacing of conduits according to the NEC and the materials used. For PVC conduit, refer to NEC table 347-8.
- G. Plans depict minimum requirements. Provide additional units as required to complete raceway system.

2.08 DUCT SEAL

- A. Provide Garvin Industries' duct seal or an approved equal
- B. Provide and install duct seal at all conduit ends for all new conduit installations.
- C. Duct seal shall be used to seal around junction boxes, terminal boxes, control panels, field instrument panels, disconnects, RTU enclosures, and the like. It shall be a permanently soft, non-toxic compound. It shall also not affect other plastic materials or corrode metals.
- D. Duct seal shall be applied to the control panel conduit penetrations, VFD enclosure penetrations, analog and discrete terminal boxes conduit penetrations, power equipment like disconnects. Apply to each penetration but not more than 20-2" conduits per panel.

PART 3 –EXECUTION

3.1 GROUNDING

- A. Provide ground system as indicated on the drawings and as required by the National Electrical Code.
- B. All raceways require grounding conductors. Metallic raceways are not adequate grounding paths. Bonding conductors through the raceway systems shall be continuous from main switch ground buses to panel ground bars of the panelboards, and from panel grounding bars of panelboards and motor control centers to branch circuit outlets, motors, lights, etc. THESE GROUND CONDUCTORS ARE REQUIRED THROUGHOUT THE PROJECT REGARDLESS OF WHETHER CONDUIT RUNS SHOW GROUND CONDUCTORS ON THE DRAWINGS.
- C. All connections made below grade shall be of the exothermic type.

- D. The grounding system test shall not exceed a 48 hour span dry resistance of 10 ohms. Additional grounding to meet this requirement shall be installed at no extra cost. Grounding and bonding connections shall not be painted.

3.2 CONDUIT

A. Locations:

Conduits shall be used as follows:

1. Refer to schedule on plans.

B. Installation

1. Conduits subjected to rough handling or usage shall be removed from the premises.
2. Conduits must be kept dry and free of water or debris with approved pipe plugs or caps. Care shall be given that plugs or caps be installed before pouring of concrete.
3. Where conduits pass through exterior concrete walls or fittings below grade, the entrances shall be made watertight.
4. Infurred ceilings, conduit runs shall be supported from structure, not furring.
5. Conduits entering panelboards, pull boxes, or outlet boxes shall be secured in place by galvanized locknuts and bushings, one (1) locknut outside and one (1) locknut inside of box with bushing on conduit end. The locknuts shall be tightened against the box without deforming the box. Bushings shall be of the insulating type.
6. Field conduit bends shall be made with standard tools and equipment manufactured especially for conduit bending.
7. Where embedded conduits cross expansion joints, furnish and install offset expansion joints or sliding expansion joints. Sliding expansion joints shall be made with straps and clamps.
8. Exposed runs of conduits shall be installed with runs parallel or perpendicular to walls, structural members or intersections of vertical planes and ceilings, with right angle turns consisting of symmetrical bends. No attempts are made in plans to show required pull boxes, gutters, etc. necessary for the construction of the raceway system but the Contractor shall provide these raceways as may be required.
9. Conduits in structural slabs shall be placed between the upper and the lower layers of reinforcing steel, requiring careful bending of conduits. Conduits embedded in concrete slabs shall be spaced not less than eight (8) inches on centers or as widely spaced as possible where they converge at panels or junction

boxes. Conduits running parallel to slab supports, such as beams, columns and structural walls shall be installed not less than 12 inches from such supporting elements. To prevent displacement during concrete pour, saddle supports for conduit, outlet boxes, junction boxes, inserts, etc., shall be secured.

10. Conduit runs shall always be concealed except where indicated on plans.
11. Pull lines shall be installed in all empty conduits. All pull wires shall be identified with conduit number at each end.
12. Where conduits are run individually, they shall be supported by approved pipe straps secured by means of toggle bolts or tapcons on hollow masonry; tapcons on concrete or solid masonry; machine screws or bolts on metal surfaces and wood screws on wood construction. The use of perforated straps or wires will not be permitted.
13. Wire shall not be installed until all work of any nature that may cause damage is completed, including pouring of concrete. Mechanical means shall not be used in pulling in wires No. 8 or smaller.
14. Underground conduits not under concrete slabs are to be buried at least two (2) feet below finished grade for circuits rated 600 volts or less, except under traffic areas where motor vehicles may cross. Under traffic areas, conduits are to be buried at least three (3) feet below finished grade.
15. All conduits shall be cleaned by pulling a brush swab through before installing cables.
16. All conduits shall be sealed at each end with electrical putty. Special care shall be taken at all equipment where entrance of moisture could be detrimental to equipment. Approved backing gauze is required prior to the installation of conduit putty.
17. A maximum of two (2) feet of flexible conduit shall be used at connections of all motors, transformers, motor operated valve and gates, instruments, and other items of equipment where vibration is present. It shall be supported where required with stainless steel bands.
18. PVC conduit shall be supported to walls and slabs using carlon snap strap conduit wall hangers. Two-hole PVC conduit clamps shall not be permitted.
19. Provide tagging for all raceways.

3.3 WIRES, CABLES, AND CONNECTIONS

- A. Cables pulled into conduits shall be pulled using pulling eyes attached to conductors.
- B. Shields shall be grounded at only one termination point.

3.4 BOXES

- A. Installation of boxes shall be in accordance with the National Electrical Code requirements.
- B. Boxes shall be mounted plumb and level in accessible locations and mounting shall be secure, vibration resistant and galvanically compatible. Hardware shall be used that is specifically intended for the purpose. When mounted in corrosive, damp or wet locations, stainless steel hardware shall be utilized.

3.5 WIRING DEVICES

- A. Wiring devices shall be installed in device boxes approved for the application. All connections shall be made with screw terminals. Wiring devices shall be Leviton or approved equal.
- B. Wire devices on UPS systems shall be isolated ground, colored orange.
- C. Cover plates shall be provided as follows except as otherwise noted.
 - 1. Interior finished area – brush alum.
 - 2. Wet areas – gasketed plastic with flip cover.
- D. Receptacles installed outdoors, below grade, or in areas other than clean and dry environments shall be GFI and weatherproof. Receptacles shall be weatherproof with cords plugged in.

3.6 SUPPORTING DEVICES

- A. All items shall be supported from the structural portion of the building and studs, except standard ceiling mounted lighting fixtures and small devices may be supported from ceiling system where permitted by the Engineer. However, no sagging of the ceiling will be permitted. Supports and hangers shall be types approved by Underwriters' Laboratories.
- B. All floor-mounted devices (switchboards, motor control centers, transformers, etc.) shall be securely anchored to the floors. Where recommendations are made by manufacturer, these recommendations shall be followed.

3.7 CLEANING

- A. All electrical equipment enclosures shall be thoroughly cleaned before acceptable by the Owner. As a minimum, Contractor shall remove all debris including stripped wire insulation, dirt, debris.

END OF SECTION

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SECTION 16200

WEATHER PROOF ENCLOSED, SPARK IGNITED, LIQUID PROPANE GENERATOR

PART 1 GENERAL

1.01 GENERATOR SPECIFICATIONS

A. Work included:

1. All of the equipment described in this section shall be purchased and installed by the Contractor; the Generator shall be supplied by a single generator equipment Supplier regularly engaged in that business. The Contractor shall be responsible for coordinating with the Equipment Supplier for the delivery, storage, and release of equipment. Including the Testing setup, configuration of the emergency generator unit at the Owner's well location as indicated on the plans. The Contractor shall cover the costs related with the startup and testing of the generator include the fuel used for the testing and load bank tests before the unit is accepted by the Engineer and the Owner.
2. The Generator unit shall be furnished with two 3-phase breakers as indicated on the drawings. Each breaker is tied to an ATS switch, one at well 14 and the 2nd one at well 13 site, refer to the drawings.
3. The Contractor shall provide all transportation and delivery of the emergency unit, installation, piping, fuel, liquids, and all other mechanical and electrical equipment. The generator shall be supplied with all the proper appurtenances for liquid propane fuel connection to the proposed LP tanks on site. Provide all valves, piping and all necessary equipment, labor, accessories, and additional materials required for a complete functional system powered unit fueled by LP or Liquid Propane gas from nearby LP fuel storage tanks.
4. The Contractor shall submit shop drawings designed by a registered Engineer for a generator, weatherproof and sound attenuated enclosure capable of meeting the south Florida wind load requirements. Include calculations that the entire assembly bolted onto the concrete slab meets the latest Florida Building Code wind load requirements.
4. The generator unit shall be provided inside an outdoor weatherproof aluminum enclosure with steel reinforcement and sound attenuated that also meets 75 db at 23 feet.
5. The Supplier shall provide the unit completely assembled. The Contractor shall handle, store, install and make all connections to the equipment. Coordinate all gas line connections with the gas company's representative. The Contractor shall provide the trenching and backfilling from the proposed propane tank to the generator and provide all piping, gas regulator, and fittings as required. The Contractor shall provide all installation and liquid propane gas line piping, regulators, valves, and related hardware. The Contractor shall provide qualified personnel for the installation and mechanical connection and termination of the propane fuel line to the generator.

6. The Contractor shall hire the services of the Generator's vendor field technician to conduct start up, testing and commissioning of the unit. Include load bank testing; provide a 1 hour @ 80% load and 2 hours @ 100% load tests.
7. Coordinate with Electrical Contractor and the Owner's PLC programmer and provide testing of the ATS and generator status and alarm signals to the PLC equipment in proposed Control Panel. Confirm these are properly terminated and working. Provide PLC hardware as indicated on the drawings at proposed Control Panel to add the ATS and generator status and alarm digital signals.
9. The generator vendor shall be Tradewinds Corporation, no equal.
10. The outdoor rated unit shall be a Tier 2/3, standby emergency use power generator with digital controller, sound attenuated enclosure
11. Unit shall be programmable so it can do weekly or monthly exercising via the ATS switch controller of the genset unit with load – per the Village of Palm Springs requirements.

1.02 CODES

- A. All equipment shall be provided per the requirements of the following codes as applicable for the intended use and installation.
 1. NFPA 70, latest edition (National Electrical Code).
 2. NFPA 110, Emergency and Standby Power Systems, latest edition.
 3. UL2200, the complete generator set shall be UL listed.
 3. BOCA, Building Officials and Code Administration.
 4. The Florida Building Code.
 5. EPA latest applicable Tier
 6. NFPA 57, 58, 59A

1.03 SUBMITTALS

- A. Provide 6 copies of shop drawings. As a minimum include:
 1. Engine manufacturer, model number, power output parameters, plans and elevations of the units, entrance points for power, control and fuel, storage, and foundation requirements.
 2. Engine Generator/Exciter control cubical.
 3. Fuel consumption rate curves at 1/4, 2/4, 3/4, 4/4 loads.
 4. Exhaust mufflers and vibration isolators.

5. Battery charger, batteries, and battery racks.
6. Fuel piping with regulator and diaphragm as required.
7. Cooling water requirements of radiator.
8. Engine cooling air requirements and radiator fan capacity.
9. Electrical diagrams including schematic and interconnection wiring diagrams for all equipment to be provided.
10. Legends for all devices on all diagrams.
11. Sequence of operation, explanations of all portions of schematic wiring diagrams.
12. Provide load calculations including starting and running kVA.
13. Transient voltage response calculation, no voltage transient shall dip below 25%.
14. Piping, fittings, regulators, and valves, and the like required for the connection to a LP propane tank and related piping.
15. Weather-proof sound attenuated, & wind load resistant Enclosure.
16. Registered Engineer's designed steel reinforced concrete pad.
17. Provide installation instruction and details.
18. Provide signed and sealed drawings by a Florida registered engineer verifying that the generator set and its enclosure meet the wind loading requirements of ASCE 7.
19. Three sets of O&M manuals shall be provided.
20. Provide 120/240V equipment for the battery charger and jacket Water heater and alternator heater circuit from the proposed panelboard, see the drawings.

1.04 WARRANTY

- A. Equipment furnished under this section shall be guaranteed against defective parts and workmanship under terms of the manufacturers and dealer's standard warranty. But, in no event shall it be for a period of less than five (5) years from the date of the Owner's acceptance of the unit.

PART 2.0 - PRODUCTS

2.01 ENGINE

- A. Engine shall be water-cooled 4 cycle inline or vee type liquid propane gas compatible. It shall meet specifications when operating on liquid propane gas. The engine shall be equipped with fuel, lube oil, coolant, exhaust system, silencer, gas piping, each with its own regulator and a diaphragm system. Fuel water separator, service run time meter,

engine driven water pump, engine driven alternator for batteries, batteries, instrument/control panel including: lube oil pressure gauge, tachometer, system voltage, system diagnostics code display, other auxiliary equipment as may be required for proper operation of the units.

- B. An electronic governor system shall provide automatic isochronous frequency regulation. The governing system dynamic capabilities shall be controlled as a function of engine coolant temperature to provide fast, stable operation at varying engine operating temperature conditions. The control system shall actively control the fuel rate and excitation as appropriate to the state of the generator set. Fuel rate shall be regulated as a function of starting, accelerating to start disconnect speed, accelerating to rated speed, and operating in various isochronous or parallel states.
- C. The engine/generator set shall be mounted on a structural steel sub-base and shall be provided with suitable quad spring vibration isolators.
- D. Safety devices for protection of the unit shall be provided as listed under this specification.
- E. Guards shall be provided over all exposed moving parts per OSHA.
- F. Unit shall be provided with removable drip pan to collect fluid spills and/or minor leaks.

2.02 ALTERNATOR

- A. The AC generator shall be synchronous, four pole, 2/3 pitch, revolving field, drip-proof construction, single pre-lubricated sealed bearing, air cooled by a direct drive centrifugal blower fan, and directly connected to the engine with flexible drive disc. All insulation system components shall meet NEMA MG1 temperature limits for Class H insulation system. Actual temperature rise measured by resistance method at full load shall not exceed 105 degrees Centigrade.
- B. The generator shall be capable of delivering rated output (kVA) at rated frequency and power factor at any voltage not more than 5 percent above or below rated voltage.
- C. A permanent magnet generator (PMG) shall be included to provide a reliable source of excitation power for optimum motor starting and short circuit performance. The PMG and controls shall be capable of sustaining circuit performance. The PMG and controls shall be capable of sustaining and regulating current supplied to a single phase or three phase fault at approximately 300% of rated current for not more than 10 seconds.
- D. The subtransient reactance of the alternator shall not exceed 12 percent based on the standby rating of the generator set.
- E. Space Heater – Alternator shall be provided with 120V, 200W max. space heater interlocked with generator run relay.
- F. Alternator shall be random wound.
- G. Provide lightning arrestor and surge capacitor for the generator.

2.03 COOLING SYSTEM

- A. Radiator – An engine mounted radiator with blower type fan shall be sized to maintain safe operation at 122 degrees Fahrenheit maximum ambient temperature.
- B. The engine cooling system shall be pretreated by the engine supplier for the inhibiting of internal corrosion.
- C. The radiator shall exhaust through the enclosure.

2.04 EXHAUST SILENCER

- A. Exhaust Silencer – Hospital grade silencer, muffler companion flanges, and flexible braided stainless steel exhaust fittings properly sized shall be furnished according to the manufacturer's recommendations. A silencer rain cap with counter weight shall be provided. Allow enclosure sized for Hospital grade silencer
- B. Silencer shall be located within the enclosure.
- C. Exhaust silencer and flex shall have insulation blankets installed.

2.05 AUTOMATIC STARTING SYSTEM

- A. Starting Motor – A DC electric starting system with positive engagement drive shall be provided. The motor voltage shall be as recommended by the engine manufacturer.
- B. Automatic control – Fully automatic generator start/stop controls in the generator control panel shall be provided. Controls shall provide shutdowns for alarm conditions listed in this specification. Controls shall include a 30 second cranking cycle with lock out.
- C. Batteries – A lead acid storage battery set of the heavy duty special starting type shall be provided. Battery voltage shall be compatible with the starting system. Battery set shall be rated for no less than 172 amp hours. Free standing corrosion resistant battery racks and necessary cables shall be provided. Batteries shall be unit mounted.
- D. Battery Charger – Current limiting battery charger shall be furnished to automatically recharge the batteries. Charger shall be the float charging type furnished to properly charge the batteries. It shall include overload protection, silicone diode full wave rectifiers, voltage surge suppressor, DC ampmeter, DC voltmeter, fused AC input. Input power shall be 120V single phase. A battery charger fail alarm contact shall be provided. Charger shall be unit mounted.

2.06 GENERATOR CONTROL PANEL

- A. Generator Set Control
 - 1. The generator set shall be provided with a microprocessor-based control system that is designed to provide automatic starting, monitoring, and control functions for the generator set. The control system shall also be designed to allow local monitoring and control of the generator set
 - 2. Provide form "A" contacts for each alarm and shutdown signal.

- B. Unit shall work with the electrical contractor furnished and installed ATS. All labor and material shall be provided to coordinate the installation with the ATS, refer to ATS specification, see the drawings.

2.07 GENERATOR RATINGS

- A. The generator shall be a minimum kW rating as called out on the drawings, 480V, 3-phase, 8 PF, and shall also start and operate the following loads with a maximum voltage dip of 25%. Supplier shall submit load calculations showing the starting and running of the following generator load, approval of shop drawing on generator unit will depend on this information being included also.

LOAD CALCULATION ABBREVIATIONS

VFD	Variable Frequency Drive
SS	Soft Start/Stop
ATL	Across the Line
LS	Load Shed
BU	Back Up
GML	Group Motor Loads
AXS	Auto Transformer Start 65%

<u>LOAD DESCRIPTION</u>	<u>START METHOD</u>	<u>HP/KVA</u>	<u>STEP</u>
Pump	VFD	40	1
Transformer		5kVA	1

- A. Provide a 480V 3 phase main breaker for the generator, see the drawings. `
- B. The generator breaker shall be located inside the generator enclosure and the access door shall allow for the full NEC clearance requirements of the breaker and its removable cover.

2.08 FLUIDS

- A. Unit shall be provided with all fluids, fully fuelled and ready for immediate use.

2.10 FUEL

- A. The fuel shall be Liquid Propane gas from local LP tanks, see drawings. The fuel systems shall meet all of the requirements from NFPA and NEC. The Contractor shall provide all appurtenances for connection to the LP gas tanks; minimally the Contractor shall provide all hardware, labor, and piping to extend the LP gas line to the LP tanks, including vacuum switches, 316 SS valves, gas regulator, safety cutoff solenoid valve, explosion proof seal offs, PVC coated RGS conduits for all control and electrical connections; and all labor and material as required.

2.11 GENERATOR ENCLOSURE

- A. A weather resistant, sound attenuated, pre-painted, maintenance free industrial grade aluminum enclosure with 304SS fasteners and door hardware. Designed as a reach-in shall be provided to house the engine/generator and accessories. It shall consist of a roof,

side walls, and end walls of one-piece, stressed skin, semi-monocoque construction. Enclosure shall be as manufactured by approved generator enclosure vendor in the business of providing generator enclosures that meet wind load and noise requirement.

- B. The system shall include a cooling and combustion air inlet silencer system, an equipment enclosure section, and a cooling air discharge silencer section. Enclosure shall be sized to house Muffler that meets hospital grade rating, which typically reduces noise between sound attenuated with a max of 75 dba at 7 meters.
- C. Insulation in walls and roof shall be semi-rigid, thermo-acoustic, thickness as required to meet the noise criteria specified. Lining shall be perforated, mill-finish aluminum. Self-adhesive foam and loose or bat-type insulating materials will not be accepted.
- D. Lifting provisions shall be provided at or near the enclosure roof, with capacity suitable for rigging the enclosure. Estimated enclosure weight shall be provided on submittal drawings.
- E. Personnel access doors shall be fabricated of the same materials as the enclosure walls. They shall be reinforced for rigidity, gasketed, and set in a welded frame to ensure proper operation. Handles shall be key lockable, all doors keyed alike. Doors and/or hinged louver panels should be provided in sufficient quantity to allow access for all necessary maintenance and operation, coordinated with generator set manufacturer. All handles, hinges and hardware shall be stainless steel.
- F. Air handling shall be as follows: Air will enter through removable hood(s) or a vertical plenum. Intake openings shall be screened to prevent the entrance of rodents and bugs. Radiator discharge will be through a gravity operated damper and into a hood or vertical plenum, as dictated by airflow. The system shall be designed for 0.5" w.c. static pressure drop maximum through enclosure.
- G. Enclosure manufacturer shall provide all necessary hardware to internally mount the specified exhaust silencer(s) and maintain the weather resistant integrity of the system.
- H. LED interior lighting shall be provided, lighting shall be protected mesh/plastic globe lens; lights shall operate from weather proof type toggle switches; the light switch shall be located at each door location, powered from batteries.

2.12 CLEARANCES

- B. The manufacturer shall locate equipment inside enclosure so all NEC required clearances shall be met in front of the generator main circuit breaker, panelboard, and battery charger.

2.13 WIND LOAD REQUIREMENTS

- A. The Contractor shall provide signed and sealed drawings from a Registered Florida engineer confirming that the generator set and its enclosure meets the wind load requirements of the Florida Building Code, and ASCE 7 for the area where the generator is being installed; include this information during the generator shop drawing submittal.

2.14 GENERATOR CONCRETE PAD

- A. The Contractor shall provide bolting of the emergency generator unit onto the concrete reinforced pad and provide rubber isolation pads between the concrete pad the generator steel frame footing/springs

2.15 GENERATOR TESTING AND CONFIGURATION

- A. The unit shall be tested at rated frequency and voltage.
- B. Following installation, the following tests shall be performed by the system manufacturer's local dealer representative(s) in the presence of the Owner's Engineer or designated appointee:
 - 1. Pre-start checks:
 - a. Oil level
 - b. Water level
 - c. Fuel pressure from gas line/regulator
 - d. Battery connection and charge condition
 - e. Engine to control interconnects
 - f. Engine generator intake/exhaust obstructions
- C. Supplier shall provide onsite operation tests
 - 1. Load – One hour operation at 80% of full load rating. Two hours of operation at 100% of full load rating. After the first half hour stabilization period at full load, the following shall be recorded at fifteen-minute intervals:
 - a. Voltage, amps and frequency.
 - b. Fuel pressure, oil pressure and water temperature.
 - c. Exhaust gas temperature at engine exhaust outlet.
 - d. Ambient temperature
 - e. Kilowatts
 - f. Power factor
 - g. kVARs
 - h. Generator temperature
 - 2. Test shall utilize resistive load banks for the full load. Minimum load shall be equal to the nameplate rating of the engine/generator set in kW. Generator supplier shall supply all load banks equipment necessary for connecting

generator to load banks. The Contractor shall provide all labor and material to perform test.

3. A test report of the load bank tests and information measured and configured by the Generator Vendor Technician shall be provided shortly after the load bank test and startup. This report shall include multiple electrical, mechanical and temperature measurements taken every 15 minutes during the 80% and 100% load bank test.
4. Proper operation of controls, engine shutdown, maintenance procedures, and safety devices shall be demonstrated to the Owner and its personnel. Provide a minimum of 2 hours training at a time convenient to the Owner and its personnel.

END OF SECTION

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SECTION 16250

AUTOMATIC TRANSFER SWITCH

PART 1 GENERAL

1.01 Section includes

- A. Automatic transfer switches (ATS) with delayed transition. This section is provided for the Contractor to provide and install the ATS switches and related raceways and controls along with mounting hardware.
- B. Refer to the plans, there will be an ATS switch for well 13 and one for well 14. Both ATS switches shall have a programmable exerciser for the user to select and program weekly or monthly exercise to the generator from either ATS switch.

1.02 References

- A. Transfer switches shall be designed and manufactured to the latest revision of UL-1008 and shall be provided with a UL label.

1.03 Submittals

- A. Submittals shall be provided in accordance with the general conditions but not less than six (6) copies.
- B. Detailed fully engineered drawings shall be provided. Standard product data sheet will be rejected.

1.04 Qualifications

- A. To be considered for approval, a manufacturer shall be specialized in manufacturing products specified in this Section with a minimum of ten (10) years documented experience.

1.05 Warranty

- A. Manufacturer shall warrant specified equipment to be free from defects in materials and workmanship for one (1) year from date of installation.

1.06 Integration

- A. Units shall be provided to fully integrate with the standby generator system. Coordination shall be required of the generator vendor.
- B. See the drawings for additional requirements.

PART 2 PRODUCTS

2.01 Model

- A. Model shall be Eaton, Tradewinds, Cutler Hammer, Asco, Lake Shore or an approved equal.
- B. The switches shall be of the automatic power sensing, delayed transition type. The switches shall be UL approved standard 1008, rated to carry full name plate current at all times. A manual handle shall be provided for emergency operation from the deadfront inner panel.
- C. Provide pilot devices or pilot LED.s.
- D. Units shall have dead front inner panel for manual operation.
- E. Units shall be rated NEMA 4X 316 SS. ATS Minimum Features:
 - 1. Voltage sensing on all three phases on normal and emergency sources with automatic low voltage and phase loss detection. Adjustable over/under frequency sensor shall be provided on the emergency source.
 - 2. Adjustable time delay after line failure before engine start, 0-5 minutes.
 - 3. Automatic transfer to generator when voltage is present.
 - 4. Adjustable time delay on retransfer when normal power is available, 2-30 minutes. Push button to cancel time delay on return to normal.
 - 5. Provide controller in ATS so it may be programmed by the user and allow for weekly or monthly exerciser with and without load.
 - 6. Adjustable time delay for engine running unloaded after transfer to normal source, 2-30 minutes.
 - 7. 4-Pilot lights or LED.s
 - a. Green for switch in normal position.
 - b. Red for switch in emergency position.
 - c. Green for normal power available.
 - d. Red for emergency power available.
 - 8. 4-Position selector switch, maintained, front door mounted on outside or keypad
 - a. Off – Switch position remains constant; generator shall not crank.

- b. Auto – Normal automatic control.
 - c. Test – Test operation of the transfer system and standby generator by simulating line power loss. System shall remain in the test mode until selector switch is returned to the auto mode which will allow normal retransfer, logic and/or time delays shall be provided to allow switch mode change without undesired actions.
 - d. Engine test – start engine without ATS transfer.
- 9. Status contacts (form A) wired to terminals for inputs to station RTU/PLC equipment:
 - a. Switch in normal position.
 - b. Switch in emergency position.
 - c. Normal voltage present.
 - d. Emergency voltage present.
- 10. Engine start contact (Form A) wired to terminals for engine start.
- 11. Short circuit withstand rating shall be 42,000 amps, unless otherwise noted.
- 12. Provide adjustable time delay for transition period in the neutral position with the pole of the switch de-energized.
- 12. Unit shall be front accessible only and wall mounted.
- 13. Provide lugs for cable connections.
- 14. Unit shall be U.L. labeled.
- 15. Installation Contractor shall be responsible for all field power and control wiring.
- 16. Provide sunshield on the top.
- 17. Provide digital multi-meter Cutler Hammer IQ 200 Series (or equal) with front panel display volts, amps, kWD etc. or equal. Provide potential and current transformers as may be required.
- 18. Provide electronic control.
- 19. Provide keypad and sunlight use display.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install ATS in accordance with manufacturers written instructions and the National Electrical Code.

3.02 FIELD QUALITY CONTROL

- A. Inspect ATS visually.
- B. Perform several manual operations.
- C. Verify circuit continuity and megger each conductor. Minimum megger value shall be 50 mega-ohms.
- D. Check tightness of all connections using calibrated torque wrench per manufacturers recommended torque values.

3.03 ADJUSTING

- A. Adjust time delay setting to values as required for proper operation of the power system. Provide settings per Owner's instructions.

3.04 TESTING

- A. Test manual operation of the unit under load. Test all automatic features of ATS including transfer from normal to emergency and from emergency to normal, remote generator start control. Provide testing in the presence of the Owner and Engineer.

3.05 TRAINING

- A. Provide a minimum of four (2) hours training.

3.06 PROGRAMMING

- A. Program switch features per Engineer/Owner requirements.
- B. Provide typewritten listing of final parameter setting with O&M manuals.

END OF SECTION

SECTION 16681

VARIABLE FREQUENCY DRIVE

PART 1 – GENERAL

1.1 WORK INCLUDED

- A. Drives shall be provided by the I&C contractor providing the Well control panels. Contractor shall provide all equipment for a complete and functional system. Contractor shall receive, handle, install and assist in checkout of the units. Contractor shall coordinate all furnished equipment.
- B. Provide a complete U.L. listed Variable Frequency Drive (VFD) systems as specified within and as indicated on the drawings. System shall be provided complete with all necessary accessories and appurtenances as required for a completely functional system ready for immediate use.
- C. Units shall be provided as specified here in and in the specification section 16901 I&C Systems, and as indicated on the drawings.
- D. Like items of equipment provided hereunder shall be the end products of one manufacturer in order to achieve standardization for appearance, operation and maintenance.
- E. See CONDITIONS OF THE CONTRACT and Division 1, GENERAL REQUIREMENTS, which contain information and requirements that apply to the Work specified herein and are mandatory for this project.
- F. Drive shall be provided as enclosed units part of the well control panel. Units packaged by others will be rejected.
- G. Drives shall interface with field instruments via the PLC equipment in the radio based RTU/PLC well control panel, as indicated on the drawings. All interfacing between the drives and the PLC shall be hard wired discrete and analog based connections – this is the base bid. As an Alternate bid item, the Contractor shall provide the price to interface the drive the RTU/PLC I/O discrete and analog via Ethernet TCP/IP communications via a Cat 6 Ethernet cable.
- H. VFD Supplier shall obtain full load amps from motor supplier before the bid and size VFD amps for 110% of full load amps.
- I. Refer to the drawings. Include indicated requirements.

1.2 SUBMITTALS

- A. Submittals shall be made in accordance with the requirements of Section 01300 – Submittals.

- B. Fully Engineered shop drawings specific for this project shall be submitted to the Engineer for review and comment. Vendor shall clearly indicate his conformance to the requirements of this specification. Along with standard literature, a detailed schematic and assembly drawings shall be provided. A recommended statement shall be provided. Vendor shall not release the unit for manufacture without approved shop drawings.
- C. Complete set of Operation and Maintenance Manuals shall be submitted in accordance with Section 01730 – Operation and Maintenance Data. O&M Manuals shall be provided prior to start-up.
- D. Warranty information shall be submitted in accordance with Section 01740 – Warranties and Bonds.

1.3 QUALITY ASSURANCE

- A. All equipment furnished under this specification shall be new and unused, shall be the product of a manufacturer having a successful record of manufacturing and servicing the equipment specified herein for a minimum of five (5) years.

1.4 WARRANTIES

- A. Provide a full warranty covering labor, materials, the services of a factory authorized technician including all expenses for a period of one year, to begin after Owner's start-up and acceptance of the drive. During this period, manufacturer shall repair any failures associated with the drive.

1.5 MANUFACTURERS, NO EQUAL

- A. Yaskawa
- B. Eaton/Cutler Hammer
- C. Altivar/SQ D

PART 2 – PRODUCTS

2.1 VARIABLE FREQUENCY DRIVE (VFD)

- A. Technology
 - 1. Units below 100HP shall be provided with 6 pulse technology with 3% line reactors and output filters.
 - 2. Units 100HP and above shall be provided with 18 pulse technology with phase shifting isolation transformer and output filters integrated into the single enclosure.
 - 3. Units shall meet or exceed the requirements of IEEE 519. Provide additional labor and materials as may be required. Submit calculations for review and approval.

- B. Provide fully engineered Variable Frequency Drive (VFD) system for use with the pump/motor application shown on plans. Contract documents are based upon Eaton/Cutler Hammer.
1. Minimum drive inverter amps of output shall not be less than the amps as listed in Table 430-150 of the latest issue of the National Electrical Code.
 2. Minimum drive overload capability shall not be less than 110% of the output rated amps for 60 seconds.
 3. Coordinate with pump requirements to verify speed and torque requirements
 4. Coordinate with vendors and equipment suppliers regarding constant or variable torque applications and torque of the driven load. Provide units per applications.
- C. As a minimum, include the following features:
1. Exterior front cabinet door mounted equipment shall be as follows:
 - a. Programmer/Monitor/Display through Keypad only
 2. Circuit breaker connected to the door handle.
 3. Control power transformer with control circuitry and control logic as specified and as indicated on the drawings.
 4. Drive be hardwired with the PLC systems, see drawings.
 5. Provide all I/O modules for each type of I/O as may be required. Refer to the drawings.
 6. Joslyn lightning arrestors, Surgitron, 1454-01 or an approved equal wired to the line side of the disconnect.
 7. 6-spare fuses of each size and type used shall be provided.
 8. Provide Transcoil KLC output filters internal to the drive.
- D. Operation
1. Keypad/Menu selection Local or Remote
 - a. Discrete control
 - (i) Local: Drive starts when the VFD Keypad RUN button is depressed.
 - (ii) Remote: The Drive will start/stop when commanded via the PLC hardwired connection.

- (iii) Speed can be adjusted in manual mode through keypad. In Remote mode through speed reference via PLC hard wired connection.
 - (iv) default values will be 0 Hertz for minimum speed and 60 Hertz for maximum speed. In local mode the speed can be manually set through the keypad, or remotely setup through SCADA control via the hard-wired connection.
- E. Enclosures shall be NEMA 3R, 304 ss, painted white, with top, sides, and front sunshields as indicated on the drawing panel details; unless otherwise indicated.
 - 1. Dimensions are critical plans to indicate maximum space requirements. Unit shall fit in allowed space. Inform Engineer if there are layout issues.
 - 2. Maximum dimensions shall be as indicated on the drawings. Dimensions are critical. Larger units than allowed in plan shall be rejected. Confirm dimensions before bidding.

2.2 VFD DESIGN

A. General

- 1. Supplier shall construct the drive to properly control internal and external equipment. No attempt is made to specify or indicate on drawings, all required equipment but rather to set forth the minimum requirements.

B. Engineering

- 1. Supplier shall provide system engineering and produce detailed fully engineered, coordinated and completed drawings.

C. Construction

- 1. Drive construction shall be per these specification and drawings.

D. Signal and Control Circuit Wiring

- 1. Wire Type and Sizes: Conductors shall be flexible stranded copper wire; these shall be UL listed TFFN, THWN, THHN and shall be rated 600v. Wire for control signal circuits shall be #16 AWG unless otherwise noted. All instrumentation cables shall be shielded #18 AWG with a copper drain wire unless otherwise noted.

E. Wiring Instrumentation

- 1. All wires shall be run in plastic wireways except (1) field wiring, (2) wiring between mating blocks in adjacent sections, (3) wiring run from components on a swing-out panel to components on a part of the fixed structure, (4) wiring run to panel mounted components on the door and the like. Wiring run on a swing out

panel to other components on a fixed panel shall be made up in nylon wire ties bundles and secured so that bundles are not strained at the terminals.

2. Wiring run to control devices on the front panels shall be tied together at short intervals with nylon ties and secured to the inside face of the panel using adhesive mounts and adhesive strips.
3. Wiring to rear terminals on panel mounted instruments shall be run in plastic wares secured to horizontal brackets run above or below the instruments in the same plane as the rear of the instruments.
4. Shields of instrument cable shall only be grounded on one side of each circuit. The side to be grounded shall be nearest the source of excitation.
5. Care shall be exercised to properly insulate the ungrounded side of the loop to prevent ground loops from occurring.
6. Conformance to the above wiring installation requirements shall be reflected by details shown on the shop drawings for the Engineer's review.

F. Ethernet Communications

1. Drive shall use Ethernet interface between drive and PLC as an **Alternate Bid item, otherwise the base bid shall be all discrete and analog interfacing between the drive and the PLC I/O shall be using #14 wires for discrete signals and Twisted Shielded Pairs Belden 16AWG cables for the Analog signals. Drive shall include communications module for Ethernet communications regardless of Base or Alternate Bid.**

G. Grounded Terminals

1. Grounding terminals are NOT to be used. All grounding shall be provided from non-grounded terminals to a single isolated grounding bus inside the control panel, this grounded bus is grounded to the external site ground.

H. Wire Marking

1. Each signal, alarm, control, and indicating circuit conductor connected to a given electrical point shall be designated by a single unique number which shall be shown on all shop drawings. These numbers shall be marked on all conductors using white plastic heat shrink sleeves with typewritten characters. Instrument signal conductors shall be tagged with unique multiple digit numbers. Wires from the circuit breaker panelboard shall be tagged indicating the branch circuit breaker number.

H. Terminal Blocks

1. Compression type terminal blocks shall be molded plastic with barriers and box lug terminals, and shall be rated 15 amps at 600v and mounted securely to DIN rails. White marking strips fastened to the molded sections shall be provided and

wire numbers and circuit identifications shall be marked thereon with machine printed marker on top. Terminal blocks shall be IEC style by Entrelec M416 or an approved equal.

I. Wire Color

1. Wire color shall be, Line Power – Black; Neutral or common – White; AC Control – Red; DC Control – Blue; Equipment or Chassis Ground – Green; specified externally powered circuits – Orange.

J. Enclosures

1. Drives shall be included as part of the Well control panel enclosure.
2. the enclosure housing the drives shall be as indicated on the drawings and specifications.

K. Identification

1. All components shall be identified using Lamacoid labels or an approved equal.

2.3 DRIVE PANEL EQUIPMENT

- A. Refer to specification section 16901 I&C Systems and the control Schematics in the drawings.

PART 3 – EXECUTION

3.1 GENERAL

- A. Install equipment in a workmanlike manner utilizing craftsmen skilled in the particular trade. Provide work which has a neat and finished appearance.
- B. Coordinate work with the Owner, the Contractor and work of other trades to avoid conflicts, errors, delays, and unnecessary interference with operation of the existing plant during construction.
- C. Follow manufacturers' installation instructions explicitly, unless otherwise indicated. Wherever any conflict arises between manufacturers' instructions, and these Contract Documents, follow Engineer's decision, at no additional cost to the Owner. Keep a copy of manufacturers' instructions on the jobsite available for review at all times.

3.2 MANUFACTURER'S SERVICES

- A. Provide the services of a factory authorized service technician to start up, test and place in service the unit. This service shall be extended, as required, at the manufacturer's expense, if problems arise with the drive unit.

- B. Provide separate from the start up, one (1) man day of training. This time shall be at the convenience of the Owner. Minimum training instructions shall include the following:
 - 1. Routine Maintenance
 - 2. Programming (not by Contractor), including entering the programming mode, changing set points interpreting fault information.
 - 3. Trouble shooting
 - 4. Fault corrections and resetting actions.
- C. Programming
 - 1. Program VFD features per project requirements (programming by Village of Palm Springs PLC and SCADA programmer).
 - 2. Provide electronic (USB drive) and printed PDF format for all documents, including as-built panel drawings in O&M manuals.

3.3 CLEAN-UP

- A. Keep the premises free from accumulation of waste material or rubbish. Upon completion of work, remove materials, scraps and debris from premises and from interior and exterior of all devices and equipment. Touch-up scratches, scrapes, or chips in interior and exterior surfaces of devices and equipment with finishes matching as nearly as possible the type, color, consistency and type of surface of the original finish.

END OF SECTION

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SECTION 16901

I&C SYSTEMS

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all instrumentation hardware and control equipment.
- B. Field instruments are under this specification, other specification sections and/or indicated on drawings.
- C. The Well Pump control panel, with the PLC and radio based RTU system in one control panel, terminal boxes, field instruments and the like shall be provided by the I&C system vendor. For this project well 14 will be a new control panel with the VFD and PLC and radio telemetry, while at well 13 the contractor will reuse the existing PLC to add the I/O signals as indicated on the drawings.
- D. The PLC system provided as part of the well control panel shall meet the requirements of the well panels for the Village of Palm Springs. The panel shall include all support power supplies, signal and power surge protection, relays and network interface equipment as called out on the drawing and the specifications, refer to this spec section and other sections for PLC equipment.
- E. The telemetry communications system shall be based on licensed radio communications from the Village of Palm Springs radio system used for the existing wells, lift stations and pump stations.
- F. The I&C Contractor shall provide all the hardware, including the drive and PLC/RTU equipment; but the Owner's PLC and SCADA programmer shall provide all PLC and RTU radio configuration and programming of the VFD, the PLC, and RTU radio and Owner's central SCADA screens to provide a fully functional well system. This shall apply to the new well 14 PLC/RTU control panel with VFD, and the modifications to the existing well 13 PLC to add the new equipment signals, as indicated on the drawings.
- G. The RTU radio based sub-system equipment with PLC and radio communications shall be compatible with the Village of Palm Springs radio telemetry system.
- H. **The I&C Contractor shall configure the drive to communicate with the PLC I/O via hard wired discrete and analog signals. Using #14 wires and 16AWG Belden or equal Twisted Shielded cables as required. The I&C Contractor shall also configure the drive to communicate between the PLC and the drive via Ethernet communications in the event the Owner chooses the Alternate means over the base bid item**

1.02 SINGLE INSTRUMENT SUPPLIER

- A. The Contractor shall assign to the Single Instrument and Control (I&C) supplier full responsibility for the functional operation of all new instrumentation systems. The

Contractor shall have said supplier perform all engineering necessary to select, to furnish, to supervise installation, connection, to calibrate, to place into operation all sensors, instruments, alarm equipment, control panels, accessories and all other equipment as specified herein.

- B. The foregoing shall enable the Contractor and the Owner to be assured that the full responsibility for the requirements of this section will reside in an organization which is qualified and experienced in the water treatment field and its process technology on a functional system basis.
- C. Contractor shall review all specifications and plans. Contractor shall be sure all control panels are included in the bid, including network equipment. The following are suggested to be in the plant wide I&C Contractor's package. Major pieces of equipment include:
 - 1. Well pump control panel with integrated VFD, PLC and RTU At Well 14
 - 2. Modifications to I/O at existing PLC at well 13 for the new signals.
 - 2. Terminal Boxes
 - 3. Field instruments, enclosures, and instrument w/sun shields

1.03 NAMED MANUFACTURER

- A. CC Controls Corporation Inc or an approved equal.

2.04 INSTALLATION WORK

- A. Nothing in this part of the specifications shall be construed as requiring the Contractor to utilize personnel supplied by his assigned instrument manufacturer's organization or any division thereof, to accomplish the physical installation of any elements, instruments, accessories, or assemblies specified herein. However, the Contractor shall employ installers who are skilled and experienced in the installation and connection of all elements, instruments, accessories, and assemblies; portions of their work shall be supervised or checked as specified herein

1.05 PREPARATION OF SUBMITTAL OF DRAWINGS AND DATA

- A. It is incumbent upon the Contractor to coordinate the work specified in these Sections so that a complete instrumentation and control will be provided and will be supported by accurate shop and record drawings. As part of the responsibility as assigned by the Contractor, the Single I&C supplier shall prepare and submit through the Contractor, complete and organized shop drawings, as specified herein. Interface between instruments, motor starters, flow meters, and existing instruments shall be included in his shop drawing submittal.

Provide a network diagram with the Bill of Material, using the Village of Palm Springs standards for network hardware, provide this information during the shop drawing submittal.

- B. In order to provide a fully coordinated system, shop drawings by other equipment vendors associated with the I&C control panel systems shall be reviewed and approved by the Contractor before submittal to the Engineer for approval.

- C. During the period of preparation of this submittal, the Contractor shall authorize direct informal liaison between his single I&C Supplier and the Engineer for exchange of technical information. As a result of this liaison certain minor refinements and revisions in the systems as specified may be authorized informally by the Engineer, but these shall not alter the scope of the work or cause increase or decrease in the contract price. During this informal exchange no oral statement by the Engineer shall be construed to give formal approval of any component or method, nor shall any statement be construed to grant formal exception to, or variation from these specifications.
- D. Operation and Maintenance Manual
 - 1. Submit one preliminary O&M for review and comment by the Engineer. Provide five final O&M's, bound in a three-ring binder. O&M shall include the requirements of I&C materials and minimally include the following: approved submittal data, start-up corrected as built shop drawings. O&M shall be neatly and logically arranged with a contents page followed by tabbed sections.

1.06 ADDITIONAL TECHNICAL SERVICES

- A. At no additional cost to the Owner, the Contractor shall provide the services of qualified technical representatives of the supplier Single I&C supplier:
 - 1. To provide the documentation that proper testing, verification of signal strength and signal quality, and proper termination/installation, and proper termination/connection of all field instruments and their signals and components of every system has been provided.
 - 2. To make all necessary adjustments, calibrations, and tests;
 - 3. To instruct plant operating and maintenance personnel on instrumentation. This time shall be in addition to whatever time is required for other facets of work at the site and shall be during the Owner's normal working days and hours.

1.07 GUARANTEE

- A. The Contractor shall guarantee all equipment and installation, as specified herein, for a period of one (1) year following the date of completion of the work. To fulfill this obligation, the Contractor shall utilize technical service personnel designated by the Single I&C supplier to which the Contractor originally assigned project responsibility for instrumentation.

1.08 ADDITIONAL PROVISIONS

- A. The applicable provisions of the following sections under Electrical Work shall apply the work and equipment specified herein, the same as if stated in full herein:
 - 1. Codes and Standards
 - 2. Equipment Materials and Workmanship
 - 3. Testing

4. Grounding
5. Equipment Anchoring
6. Conductor and Equipment Identification
7. Terminal Cabinets and Control Compartments
8. Process Control Devices

1.09 NEWEST MODEL COMPONENTS

- A. All meters, instruments and other components shall be the most recent field proven models marketed by their manufacturers at the time of the submittal of shop drawings unless otherwise specified to match existing equipment. All technical data publications included with the submittal shall be the most recent issue.

1.10 COORDINATION

- A. I&C supplier shall coordinate with his supplier and other Contractors on the project. Where large subsystems are provided, the I&C supplier shall coordinate before the bid to be certain all equipment, engineering and labor are provided. Coordination item minimally includes: equipment dimensions, heat rejection, power requirements, control and signal requirements, and interconnection requirements.

1.11 TEST PROCEDURE DEVELOPMENT AND DOCUMENTATION

- A. I&C subcontractor shall prepare and submit to the Engineer for review a detailed description of the test procedures that he proposed to perform to demonstrate conformance of the complete system of instrumentation and controls to this Specification.
- B. It is recommended that the I&C subcontractor develop the test procedures in two steps by first submitting general descriptions and outlines of the tests and then, upon receipt of approval, submit the required detailed procedures and forms.
- C. Operational Acceptance Tests shall be included by the I&C contractor on the panel and its components.
 1. The I&C subcontractor shall prepare check-off sheet(s) for each loop and an instrument calibration sheet for each active I&C element (except simple hand switches, lights, etc.). These check-off and data sheets shall form the basis for these operational tests and this documentation.
 2. Each loop check-off sheet shall cite the following information and shall provide spaces for sign-off on individual items and on the completed loop by the I&C subcontractor.
 - a. Project name

- b. Loop number
 - c. For each elements: Tag number, description, manufacturer and model number, installation bulletin, and Specification sheet number.
 - d. Loop description
 - e. Installation check
 - f. Termination check
 - g. Calibration check
 - h. Adjustment check
 - i. Space for comments
 - j. Space for loop sign-off I&C subcontractor and date.
3. Each instrument calibration sheet shall provide the following information and a space for sign-off on individual items and on the completed unit by Owner Representative and the I&C subcontractor.
- a. Project name
 - b. Loop number
 - c. Tag number
 - d. Manufacturer
 - e. Model number
 - f. Serial number
 - g. Calibration range
 - h. Calibration data: Input, output and error at 0, 25, 50, 75, and 100% of span.
 - i. Switch setting, contact action and dead band for discrete elements.
 - j. Space for comments
 - k. Space for sign-off by I&C subcontractor and date.

D. Functional Acceptance Tests

The I&C subcontractor shall prepare two types of test forms as follows:

1. For those functions that can be demonstrated on a loop-by-loop basis, the form shall include:
 - a. Project name
 - b. Loop number
 - c. Loop description
 - d. Test procedure description
 - e. For each component: Tag number, description, manufacturer, and data sheet number.
 - f. Space for sign-off and date by both I&C subcontractor and Owner Representative.
2. For those functions that cannot be demonstrated on a loop-by-loop basis, the test form shall be a listing of the specific tests to be conducted. With each test description, the following information shall be included:
 - a. Spec page and paragraph of function demonstrated
 - b. Description of function
 - c. Space for sign-off and date by both I&C subcontractor and Engineer.

PART 2 PRODUCTS

2.01 TECHNICAL MANUALS

- A. One preliminary O&M manual shall be submitted to the Engineer for review and comment. Assuming a favorable review the I&C supplier shall incorporate comments and forward the five final copies to the Engineer. If the preliminary O&M is not acceptable, the I&C supplier shall resubmit.
- B. Five (5) final sets of technical manuals shall be supplied for the Owner as a condition for final acceptance of the project. Each set shall consist of one (1) or more volumes, each of which shall be bound in a standard size, 3-ring, loose leaf, vinyl plastic hard cover binder suitable for bookshelf storage. Binder ring size shall not exceed 3 inches.
- C. In addition to updated shop drawing information to reflect actual existing conditions, each set of technical manuals shall include installation, connection, operating, troubleshooting, maintenance, and overhaul instructions in complete detail. This shall provide the Owner with comprehensive information on all systems and components to enable operation, service, maintenance, and repair. Exploded or other detailed views of all instruments, assemblies, and accessory components shall be included together with the complete parts lists and ordering instructions.

- D. Shop drawing files shall be provided in the latest version of Autocad with each O&M manual. Provide ACAD files on disk.

2.02 SPARE PARTS

- A. The Contractor shall include, as part of the bid package, a list of recommended spare parts covering items required under these specifications.
- B. Minimum spare parts shall be provided boxed and identified including the following:
 - 1. 2-control relays of each type used.
 - 2. 2-timing relays of each type used.
 - 3. 2-fuses of each size and type used.
 - 4. 2-pilot lights of each size and type use.
 - 5. 2-signal field surge arrester of each type used.
 - 6. 2-signal panel surge arrester of each type used.
 - 7. 1-incoming power lightning arrester of each type used.
 - 8. 1-surge capacitor of each type used.
 - 9. 1- DC Power supply of each type used.

Also provide other spares as noted by the particular sections and paragraphs of other-specifications.

2.03 CONTROL PANELS

- A. General
 - 1. I&C supplier shall construct the control panel to properly control internal and external equipment. No attempt is made to specify or indicate on plans, all required equipment but rather to set forth the minimum requirements.
- B. Engineering
 - 1. I&C supplier shall provide system engineering and produce detailed fully engineered, coordinated, and completed drawings.
- C. Construction
 - 1. Control panel construction shall be per these specification and plans.

D. Signal and Control Circuit Wiring

1. Wire Type and Sizes: Conductors shall be flexible stranded copper wire; these shall be UL listed TFFN, THWN, THHN and shall be rated 600v. Wire for control signal circuits shall be #16 AWG unless otherwise noted. All instrumentation cables shall be shielded #18 AWG with a copper drain wire unless otherwise noted. All special instrumentation cable such as between sensor and transmitter shall be supplied by the I&C supplier. Contractor shall increase wire size per load or impedance requirements.

E. Wiring Instrumentation

1. All wires shall be run in plastic wireways except (1) field wiring, (2) wiring between mating blocks in adjacent sections, (3) wiring run from components on a swing-out panel to components on a part of the fixed structure, (4) wiring run to panel mounted components on the door and the like. Wiring run on a swing out panel to other components on a fixed panel shall be made up in nylon wire ties bundles and secured so that bundles are not strained at the terminals.
2. Wiring run to control devices on the front panels shall be tied together at short intervals with nylon ties and secured to the inside face of the panel using adhesive mounts and adhesive strips.
3. Wiring to rear terminals on panel mounted instruments shall be run in plastic wares secured to horizontal brackets run above or below the instruments in the same plane as the rear of the instruments.
4. Shields of instrument cable shall only be grounded on one side of each circuit. The side to be grounded shall be nearest the source of excitation.
5. Care shall be exercised to properly insulate the ungrounded side of the loop to prevent ground loops from occurring.
6. Conformance to the above wiring installation requirements shall be reflected by details shown on the shop drawings for the Engineer's review.

F. Wire Marking

1. Each signal, alarm, control, and indicating circuit conductor connected to a given electrical point shall be designated by a single unique number which shall be shown on all shop drawings. These numbers shall be marked on all conductors using white plastic heatshrink sleeves with typewritten characters. Instrument signal conductors shall be tagged with unique multiple digit numbers. Wires from the circuit breaker panelboard shall be tagged indicating the branch circuit breaker number.

G. Terminal Blocks

1. Compression type terminal blocks shall be molded plastic with barriers and box lug terminals, and shall be rated 15 amps at 600v and mounted securely to DIN rails. White marking strips fastened to the molded sections shall be provided and wire numbers and circuit identifications shall be marked thereon with machine

printed marker on top. Terminal blocks shall be IEC style by Entrelec M4/6 or an approved equal.

2. Grounding terminals are NOT to be used. All grounding shall be provided from non-grounded terminals to a single isolated grounding bus inside the control panel, this grounded bus is grounded to the external site ground.

H. Wire Color

1. Wire color shall be, Line Power – Black; Neutral or common – White; AC Control – Red; DC Control – Blue; Equipment or Chassis Ground – Green; specified externally powered circuits – Orange.

I. Enclosures

1. Unless otherwise indicated, all enclosures shall be provided with the following.
 - a. Modified NEMA 4X, 316 stainless steel, with sunshields at the top, sides, and front, gasketed, freestanding or wall mounted, bolted to concrete base. Enclosures shall be powder coated white.
 - b. Subplate for mounting equipment.
 - c. Padlockable, pocketed exterior doors.
 - d. Where required, provide stainless steel piano hinged dead fronts with quarter turn latches.

J. Identification

1. All components shall be identified using Lamicoid labels or an approved equal.

2.04 CONTROL PANEL EQUIPMENT

A. General Purpose Relays

1. General purpose relays in the control panel shall be the plug-in type with contacts rated 10 amps at 120 vac as a minimum. The quantity and type of contacts shall be as required to accomplish the desired control task. Each relay shall be enclosed in a clear plastic heat and shock resistant dust cover. Relays shall be Potter and Brumfield or an approved equal. Differing mounting sockets shall be used to prohibit improper relay installations. Provide tube type base, 8 PIN or 11 PIN.

B. Time Delay Relays

1. Time delay relay shall be Diversified with digital settings or an approved equal. Timers shall be time delay on, interval on or time delay off relays, as required and shall be Diversified or an approved equal. Instantaneous contacts or auxiliary slave relays shall be provided as required. Provide tube type base, 8 PIN or 11 PIN.

C. Signal Isolators

1. Additional slave or interposing relays and signal isolators and signal converters shall be installed as required.

D. Circuit Breakers

1. Circuit breakers shall be single pole, 120vac, 15 amp rating or as required to protect wires and equipment; mounted on the inside of the enclosure or equipment remote from the enclosure.

E. Name Plates

1. Name plates shall be supplied for identification of control panels and all field mounted elements, including flowmeters and their transmitters. These name plates shall identify the instrument or meter, descriptively as to the function of the system. Nameplates shall be fabricated from black faced, white centered, laminated engraving plastic. A nameplate shall be provided for each signal transducer, signal converter, signal isolator, each electronic trip, and the like, mounted inside the control panels. These shall uniquely identify each control component. Adhesives shall be acceptable for attaching nameplates. Painted surfaces must be prepared to allow permanent bonding of adhesives. Nameplates shall be provided for instruments, function titles for each group of instruments and other components mounted on the front of the control panels as shown. Proposed colors, styles, height, and text shall be submitted for approval.

F. Fluorescent Light

1. Provide fluorescent panel light mounted to subplate. Provide subplate mounted switch and outlet or handy box.

G. Vapor Guard

1. Moisture absorbing vapor guard shall be provided in each control panel.

H. Power Supplies

1. Power supplies shall be provided as required for loop power or other requirements for special equipment. Loop power supplies shall be Lambda or an approved equal.
2. All Stratix switches and all Compact Logix PLC equipment each requires two DC power supplies as indicated on the drawings.

I. Circuit Breakers

1. Square D
2. Amperage ratings shall be indicated on drawings.

J. Fuses

1. Fuses and fuse holders 5 x 20mm, IEC style, with blown fuse indicating light.
2. Fuses are to be used for analog signals only and are required for all analog signals.

K. Ground Fault Interrupting Receptacle

1. Leviton Duplex Receptacle or equal.
2. AC receptacle box shall be Steel City 58351-1/2 or equal.
3. Covers shall be Steel City 58-C-5, or equal.
4. Single gang non-GFI receptacle shall be provided for UPS power.

L. Selector Switches and Push Buttons

1. Square D, Class 9001, Type K, or equal.
2. Operators shall be black knob type or key switch, 3-position or 2-position, push button or as noted.
3. Selector switches shall be spring return where noted.
4. Pushbuttons inserts

	<u>Label</u>	<u>Color</u>
a.	On	Green
b.	Off & Closed	Red
c.	Auto	Green
d.	Alarm	Yellow

5. Selector Switch Operator

	<u>Label</u>	<u>Color</u>	<u>Text</u>
a.	All	Black	White

M. Indicator Lights

1. Square D, Class 9001, type K. Units shall be press to test, transformer type.
2. Lens color shall be as noted.

	<u>Label</u>	<u>Color</u>
a.	Off	Red
c.	Closed	Red
e.	Auto	Green
g.	Alarm	Yellow

N. Surge and Lightning Arrestors

1. All control panels shall be provided with surge and lightning arrestors meeting the Village of Palm Springs well control panel standards.
2. TVSS
 - a. Lightning surge suppressors shall be Innovative Technology PTX-160 Series, unless otherwise indicated.
3. Signal
 - a. Panel surge arrestors shall be Joslyn, 1800 Series.
 - b. Field surge arrestors shall be Joslyn, 1660-06.
4. Ethernet Surge Protection
 - a. Atlantic Scientific, 240040P, plug in surge arrestor, via FB Suppressors, Inc., (305) 247-3477.

O. VFD Equipment

1. Provide VFD as specified in the drawings and the VFD specification section.
2. Provide VFD with input line reactor and Output filter at each well site well control panel.

2.05 FIELD INSTRUMENTS

A. General

1. The materials specified below shall establish the type and quality of materials used and shall meet the Village of Palm Springs current well equipment, and control panel standards.
2. Refer to Civil, Mechanical, and Electrical plans for additional requirements.

B. Draw Down Level Pressure Sensor Instrument.

1. Provide instrument per the Village of Palm Springs well standards.

C. Terminal Boxes

1. Units shall be NEMA 4x enclosed, 316 Stainless Steel.
2. Units shall include terminal blocks, as may be required.
3. The minimum size as indicated.

4. Provide Edco surge arrestors for all analog circuits. Confirm Surge arrestor model meets the Owner's latest requirements for signal protection.
 5. Provide engraved name plate.
- D. Impulse Systems
1. Provide impulse tubing, taps, valve, drains, bulkheads, etc. for a complete and functional system.
 2. Unless otherwise indicated, impulse tubing shall be soft drawn copper with compression fittings. Valves shall be 316ss Whitey or equal.
- E. Magnetic Flow Meters
1. Flow meters shall be per the Village of Palm Springs well standards.
- F. Pressure Measurement instrument
1. Pressure transmitter per the village of Palm Springs well standards.

2.06 NAMEPLATES, NAME TAGS AND SERVICE LEGENDS

- A. All components provided under this section, both field and panel mounted, shall be provided with permanently mounted name tags bearing the entire IA tag number of the components. Panel mounted tags shall be plastic; field mounted tags shall be stamped stainless steel.
- B. The panel drawings refer to nameplates and service legends: nameplates are defined as inscribed laminated plastic plates mounted under or near a panel face mounted instrument. Service legends are defined as inscribed laminated plastic integrally mounted on a panel face mounted instrument.
- C. Service legends and nameplates shall be engraved, rigid, laminated plastic. Service legends and nameplates shall be fastened to the panel by screws or with a specially applied adhesive. Fastening shall not depend only on the adhesive.

2.07 UPS SYSTEM

- A. Provide APC UPS sized to run the controls, confirm make and model of UPS with Village of Palm Springs SCADA personnel, and provide compliant UPS, see drawings for minimum requirements.

PART 3 EXECUTION

3.01 INSTALLATION, CALIBRATION, TESTING, START UP AND INSTRUCTION

- A. General
1. Under the supervision of a Single I&C supplier, all systems specified in this section shall be installed, connected, calibrated and tested and in coordination

with the Owner and Engineer shall be started to place the process in operation. This shall include final calibration in concert with equipment specified elsewhere in these specifications as well as equipment provided by the Owner.

B. Installation and Connection

1. The Contractor shall install and connect all field mounted components and assemblies under the criteria imposed in 1.3, herein. The installation personnel shall be provided with a final reviewed copy of the shop drawings and data.
2. The instrument process lines, impulse piping lines and air signal tubing shall, in general, be installed in a similar manner to the installation of conduit specified under Section 16000.
3. Bends shall be formed with the proper tools and to uniform radii and shall be made without deforming or thinning the walls of the tubing.
 - a. Unless otherwise indicated, all fittings, adapters, impulse piping, valves, etc. shall be 316 stainless. Valves shall be Whitey Series 40 or an approved equal.
4. The Contractor shall have a technical field representative of the I&C supplier to instruct these installation personnel on any and all installation requirements; thereafter the technical field representatives shall be readily available by telephone to answer questions and to provide clarification when needed by installation personnel.
 - a. Where primary elements (supplied by the I&C supplier) will be part of a mechanical system, the I&C supplier shall coordinate the installation of the primary elements with the mechanical system manufacturer.
5. After all installation and connection work has been completed, the technical field representatives shall check all for correctness, verifying polarity of electric power and signal connections making sure all process connections are free of leaks and all such similar details. The technical field representative shall certify in writing to the Contractor that for each loop or system he has completed such check out and that any discrepancies have been corrected by the installation personnel.
6. The field representative of the I&C supplier shall coordinate all work required to interface the new equipment, including all required modifications to the existing equipment and related devices.

C. Calibration

1. All new instruments shall be calibrated.
 - a. All instruments and systems shall be calibrated after installation, in accordance with the component manufacturer's written instructions. This shall provide that those components having adjustable features are set carefully for the specific conditions and applications of this installation and that the components and/or systems are within the

specified limits of accuracy. Defective elements which cannot achieve proper calibration or accuracy, either individually or within the system shall be replaced. This calibration work shall be accomplished by the I&C Supplier.

- b. Proof of Conformance – The burden of proof of conformance to the specified accuracy and performance is on the Contractor using his designated I&C supplier. The Contractor shall supply necessary test equipment and technical personnel if called upon to prove accuracy and performance at no additional cost to the Owner, wherever reasonable doubt or evidence of malfunction or poor performance may appear within the guarantee period.

D. Testing

1. All systems shall be exercised through operational tests in the presence of the Engineer in order to demonstrate achievement of the specified performance. Operational tests depend upon completion of work specified elsewhere in these specifications. The scheduling of the test shall be coordinated by the Contractor among all parties involved so that the tests may proceed without delays or disruption by incomplete work.
2. All functional/loop tests shall be witnessed and signed off by the Owner's representative and the I&C subcontractor.
3. Contractor shall provide testing service in conjunction with the PLC/SCADA programing. Contractor shall include a maximum of 8 man hours for this service. If problems are found as a result of I&C equipment additional time shall be provided as may be required to correct issues – this additional time shall not cost the Owner additional cost. Reference Section 16910-Programmable Logic Controller.
4. Provide additional 4 hours of assistance and support to the PLC and SCADA programming for the proper programming and configuration of the equipment at the well site.

E. Training

1. Plant operating personnel shall be provided with training prior to start-up.
2. Provide a one 2-hour training session for the proper training of the personnel. A time convenient to the Owner shall be scheduled ahead and coordinated before the training is scheduled.
3. Operating and maintenance personnel shall be instructed in the functions and operation of each system and shall be shown the various adjustable and set point features which may require readjustment, resetting or checking, recalibration or maintenance by them from time to time. This instruction shall be scheduled at a time arranged with the Owner at least two (2) weeks in advance. Instruction shall be given by qualified persons employed by the I&C supplier.

F. Start Up

1. When all systems are assessed by the Contractor to have been successfully carried through complete operational tests with a minimum of simulation, and the Engineer concurs in his assessment, start up by the plant operating personnel can follow.

END OF SECTION

SECTION 16910

PROGRAMMABLE LOGIC CONTROLLER

PART 1 GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall furnish, install, and place into service the Programmable Logic Control (PLC) systems.
- B. Provide complete I/O system including all racks, power supplies, cables, connectors, terminals, interposing relays, signal conditioners, signal isolators and the like.
- C. All hardware and cables shall be provided. All field debugging and testing shall be provided. Field testing shall be provided concurrent with Owner's separately provided PLC and SCADA programmer.
- D. In order to establish sole source responsibility of the Instrumentation and Control (I&C) system, the I&C vendor shall be responsible for all systems and subsystems hardware provided. The I&C vendor shall provide all the equipment related to the well control panel and radio telemetry.
- F. Like items of equipment provided hereunder shall be the end products of one manufacturer in order to achieve standardization for appearance operation and maintenance.
- G. See CONDITIONS OF THE CONTRACT and Division 1, GENERAL REQUIREMENTS, which contain information and requirements that apply to the Work specified herein and are mandatory for this project.
- H. Refer to the drawings. Provide the equipment within this section inside the PLC control panel enclosure, and provide all labor materials for a complete and functional system.
- J. PLC programming shall be furnished by the Owner's approved PLC and SCADA programming Contractor. I&C Contractor shall coordinate with Owner's programmer and provide support (up to 4 hours) in coordination with the programmer and the hardware.
- K. PLC systems, hardware shall be provided as part of the I&C system hardware provided.
- L. Refer to the drawings for details on communications between the well 14 new PLC system telemetry communications with the existing SCADA/PLC system at the Village of Palm Springs water plant. Similarly, refer to the drawings for I/O changes at the existing well 13 RTU PLC to provide the new signals indicated on the drawings.

1.02 SUBMITTALS

- A. Submittals shall be made in accordance with the General Requirements.
 - 1. During the period of preparation of this submittal, the Contractor shall authorize direct informal liaison between his single I&C Supplier and the Engineer for exchange of technical information. As a result of this liaison certain minor refinements and revisions in the systems as specified may be authorized informally by the Engineer, but these shall not alter the scope of the work or cause increase or decrease in the Contract price. During this informal exchange no oral statement by the Engineer shall be construed to give formal approval of any component or method, nor shall any statement be construed to grant formal exception to, or variation from these specifications.
- B. Six complete sets of Operation and Maintenance Manuals shall be provided.
- C. Warranty information shall be submitted in accordance with general conditions.

1.03 QUALITY ASSURANCE

- A. All equipment furnished under this specification shall be new and unused, shall be the product of a manufacturer having a successful record of manufacturing and servicing the equipment specified herein for a minimum of five (5) years.

1.04 WARRANTY

- A. The Contractor shall warrant all equipment for a period of one (1) year from the date of Owner acceptance of the system.

1.05 PROGRAMMING

- A. None required by the Contractor. All programming and configuration to be carried out for the PLC and SCADA equipment shall be carried out by the The OWNER's SCADA and PLC programmer.

PART 2 PRODUCTS

2.01 GENERAL

- A. The programmable logic controller and all related equipment including I/O cards shall be of the same family for all applications. See drawings.
- B. PLC systems manufactured into control panels and assemblies shall contain a minimum of 25% spare I/O connected and ready to use.

2.02 POWER SUPPLY

- A. Provide a battery backed power supply sized to power all PLC equipment.

2.03 UPS SYSTEM

- A. Provide a U.L. labeled UPS system with 30 min. runtime.

2.04 RACKS

- A. Provide racks and/or modules with quantity as may be required. Plans indicate minimum schematic requirements.

2.05 PLC EQUIPMENT

A. Processor

1. Provide Allen Bradley Control Logix PLC family.
2. No substitutions shall be accepted.
3. See the drawings.

B. MODULES

1. Provide the following I/O cards as a minimum including all terminals, surge arrestors and other equipment wired and ready for immediate use.
 - a. 1-discrete input module
 - b. 1-discrete output module
 - c. 1-analog input module
 - d. 1-analog output module
 - e. 1-field potential distributed module
2. Discrete input modules shall be 16 point cards as a min.
3. Analog input modules shall be 8 point, as a minimum, 24 vDC, 4-20 mADC.
4. Analog output modules shall be 8 point, 24 vDC, 4-20 mADC, self-powered.
5. Provide the named materials and systems only. Refer to drawings.

C. Miscellaneous PLC Equipment

1. Provide all power supplies, PLC Rack, communications modules, cable and miscellaneous equipment for a complete and functional PLC system.

D. PROGRAMMING SOFTWARE, no programming software shall be provided by I&C Contractor as the Village of Palm Springs PLC and SCADA programmer shall provide all software related materials and equipment

E. PLC SPARES

1. 1 – I/O modules of each type and point count used.
2. 1 – Power supply of each type equal to proposed unit with appurtenant cables.
3. 1 – Processor module of each type.
4. Submit spares bill of material for review and approval.

2.06 ETHERNET SWITCHES

- A. Units shall be Stratix network switches, include hardware compatible with the OWNER's standard well control panels. The Engineer and OWNER will review the submittal and provide revisions as required for the Contractor to implement into final installation.
- B. Provide E-switch minimum, as described in the drawings.
- C. Provide all cables and connectors.
- D. Provide Cat. 6 Ethernet cable for all uses on the project.
1. Include cables and connectors.

2.07 LOCAL HMI

- A. Shall not be provided.

2.08 ETHERNET EQUIPMENT

- A. Provide Ethernet equipment as may be required for a complete and functional system including ethernet communication between the PLC equipment and the VFD equipment via Ethernet switch, Provide Cat6 Ethernet patch cables, connectors, and the like. The I&C Contractor shall provide a detailed network diagram of the installation between the well sites and the south electrical building, and the BOM – this is to be submitted for review and approval during shop drawings submittal.

PART 3 EXECUTION

3.01 PLC I/O SCHEDULE

- A. Provide an I/O schedule identifying all I/O used and spares.

- B. The I&C Contractor shall work with the Owner's PLC programmer for the I/O to be coordinated for the PLC programming of equipment status and alarms per the Village of Palm Springs standards, see the drawings also.
- 3.02 PROVIDE LOOP TESTING SPREADSHEET
 - A. Provide spreadsheet with separate rows to identify each I/O point.
 - B. Test each I/O point with the calibrated device.
- 3.03 START UP MODIFICATIONS
 - A. Modifications shall be required during start up per the Owner/Engineers requirements. Contractor shall coordinate with the Owner's programmer during start up.
- 3.04 GUARANTEE
 - A. Contractor shall guarantee the hardware through the service of his appointed I&C supplier for a period of one year.

END OF SECTION

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SECTION 16960
SCADA SYSTEM

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. Contractor Responsibilities

1. Install and configure all hardware.
2. Test, configure, and demonstrate all hardware.
3. Provide assistance during testing and demonstration of hardware, as may be required. Including coordinating the I/O points of the field instruments, PLC equipment with the Village of Palm Springs PLC and SCADA programmer.
4. No programming shall be provided for the PLC, RTU radio, and SCADA Equipment at the well control panel and at the existing their central Village of Palm Spring Water Plant, and VFD equipment configuration.
5. The programming of the existing PLC and RTU system at well 13 shall include the new I/O points being added, refer to the drawings. Include the graphical elements pertaining to the new equipment added to existing well 13 at the existing Village of Palm Springs SCADA system.
6. The programming of the PLC, VFD and RTU at the new control panel for well 14, and also the existing SCADA system shall provide the well 14 pumping status, and alarms of the well control panel, its field instruments, and data logging historical tracking of flows and pressures collected by the PLC and SCADA equipment.

1.02 PROGRAMMING SCOPE

- A. The Owner's PLC and SCADA programmer shall provide programming, labor, and all documentation for a complete system. The Owner shall be the licensed Owner of all software and developed files.
- B. The Owner's existing SCADA computer system shall exchange data from the new well PLC system (via the RTU telemetry) and provide dynamic screen displays, reports, alarm handling and alarm logging and all human machine interface to the I&C system indicated on the drawings.
- C. Other software and programming functions shall be provided as may be required.
- D. Provide interfacing of alarms and status between the proposed remote well 14R PLC system and flow and Pressure, along with Well VFD running and fault alarms. Also, provide status signals, levels, pressures, and the like from proposed field instruments.

At existing well 13 PLC the programming shall address the status of the new I/O Points being added, see the drawings and other specifications.

- E. Software programmer shall use his own development key.

1.04 MANUFACTURER

- A. In order to establish system responsibility, the I&C Vendor shall provide all well hardware related equipment, including PLC, VFD, and RTU equipment; no software shall be provided by I&C Contractor, instead the Owner's PLC and SCADA programmer is responsible to provide all configuration and programming of the Well PLC and VFD, along with the Water Treatment Plant's main SCADA and PLC system to replicate the HMI graphical components of the new Well 14R equipment.

1.05 SUBMITALS

- A. Submittals for approval shall be provided for any and all materials. No materials shall be used without approval from the Engineer.
- B. Refer to the General Requirements for documentation of Shop Drawings and O&M Manuals.

PART 2 - PRODUCTS

2.01 SCADA SOFTWARE

- A. The I/O associated with the new well 9, its field instruments, VFD equipment, shall be represented in the SCADA system as well as derived tags. System development shall be consistent with ISA industry standards and conventions, and based on the other existing Village of Palm Springs wells and I/O tags.
- B. The Owner's PLC and SCADA programmer shall provide programming on the Owner's SCADA system, no SCADA software is to be provided by the Contractor.
- C. Provide drivers as required to interface with Allen Bradley PLC and other components as may be required for a fully functional system. Provide, install, and configure any and all drivers to work with new systems.
- C. Alarm Processing
 - 1. Alarm conditions shall automatically be brought to the operator's attention audibly and visually on the SCADA Interface, as indicated on the drawings
 - 2. An alarm screen shall be provided to simulate and mimic the operation of the annunciator.
 - 3. Provide alarm log with time, date and tag.

E. Dynamic Screen Displays

1. Color dynamic screen displays shall be provided. All PLC I/O as well as derived values and alarms shall be utilized and displayed on one or more screens. System developer shall use good judgment in developing logically oriented screens depicting the process. Dynamic bar graphs with text shall be used to represent analog values such as tank levels, alarm levels shall represent graphically and with text. Diagrams shall be developed to represent tanks, piping, valves and the like. Consistent conventions shall be used regarding normally open/close states, alarm/normal states, running/non-running states for all equipment with I/O associated with it.
2. Provide man machine interface via keyboard and/or mouse. Operator shall have the ability to control all equipment scheduled via the PLC. Control shall minimally include start/stop indicated pumps in the automatic mode. Operator shall have the ability to place equipment in an "OUT OF SERVICE" mode which shall affect the PLC program appropriately. Control shall be provided to open/close all valves.
3. Operator shall have the status of all setpoints and the ability to modify those setpoints, timers and the like.
4. Color print outs of proposed screens shall be submitted for review and approval.
5. The computer SCADA screens shall depict the well panel's equipment and field instruments as indicated by the Drawings. The following minimum screens and/or graphical elements together with all the other requirements as specified in the PLC strategies shall be provided as a minimum:
 - a. Well 14R Flow, Pressure, VFD running and alarm and fault, status
 - b. Well 14R Panel and PLC intrusion status
 - c. Well 14R total Flow
 - d. Well 14R generator running status
 - e. Well 14R ATS switch position
 - f. Well 13 ATS switch position
6. Screens shall depict all elements included in the drawings, and status Of equipment running or malfunctioning.
7. Coordinate with Owner for two more points from PLC monitored equipment.

F. Detailed report generations shall be provided showing useful information for water applications. Report on demand as well as scheduled reports shall be provided. Coordinate with Owner and provide reports per Owner's requirements.

G. Submit screen and alarm reports for approval.

H. The I/O shown on the drawings shall be included in the SCADA system.

I. Data Logging

1. Provide data logging of all analog parameters including but not limited to:

- a. Pressure at Well 14R, in PSI
- b. Well 14R pump Running Status, hours
- c. Flow of Well 14R, in GPM
- d. Totalized Flow based on XX number of hours or daily.

2.02 HARDWARE

A. No new SCADA or computer hardware is to be provided here in and in the other specifications, and as indicated on the drawings

PART 3 - EXECUTION

3.01 LICENSING

A. The Owner shall be the named license holder for all software provided.

3.02 PROGRAMMING

A. The Owner's programmer shall program the SCADA software/HMI programming at the WTP SCADA computer

B. Alarms shall be directed to the screen and hard disk.

3.03 START UP, TESTING MODIFICATIONS

A. All I/O interface shall be confirmed by testing.

B. Provide a typewritten sequence of checkout. Provide a spreadsheet including each point or tag and provide sign off field as follows:

1. Tag name
2. Well Panel checkout
3. Electrician checkout
4. Owner/Engineer checkout

C. Provide an additional 10 manhours of programming time for modifications and changes in the field. This time shall be in addition to start up and testing.

3.04 SEQUENCE OF OPERATION

- A. Provide written narrative of described the Well VFD operation, the PLC and SCADA system monitoring procedures.
- B. Provide start up description.
- C. Provide shut down description.
- D. Provide trouble shooting instructions.

END OF SECTION

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APPENDIX A

PERMITS

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Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Ron DeSantis
Governor

Joseph A. Ladapo, MD, PhD
State Surgeon General

Vision: To be the **Healthiest State** in the Nation

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

**In the matter of an
Application for Permit by:**

Paul Ward
Assistant Director
Village of Palm Springs
226 Cypress Lane
Palm Springs, FL 33461
pward@vpsfl.org

DEP FILE: 138287-212-WC
County: Palm Beach
Project: Replacement Well 14R

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number **138287-212-WC** for the construction of wells and water treatment for a Transient Non-Community water treatment facility, issued pursuant to 403.087(1), Florida Statutes

This permit is final and effective on the date filed with the clerk of the Florida Department of Health Palm Beach County (the Department) unless a petition is filed in accordance with the paragraphs below or unless a request for extension of time in which to file a petition is filed within the required time frame and conforms to Rule 62-110.106(4), F.A.C. Upon timely filing of a petition or a request for an extension, this permit will not be effective until further Order of the Department.

NOTICE OF RIGHTS

This action is final and effective unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:



- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; A statement of when and how the petitioner received notice of the agency decision;
- (c) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (d) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (e) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (f) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 4052 Bald Cypress Way, Bin A-02, Tallahassee, Florida 32399, or via facsimile at 850-413-8743, or hand delivered to Agency Clerk, Florida Department of Health 2585 Merchants Row Blvd., Prather Building Tallahassee, Florida or electronically filed <https://agency.clerk-fdh.mycusthelp.com/WEBAPP/rs/supporthome.aspx?&lp=3> . Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under [Sections 120.569](#) and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver will not apply to persons who have not received written notice of this action.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 4052 Bald Cypress Way, Bin A-02, Tallahassee, Florida 32399, or via facsimile at 850-413-8743 before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

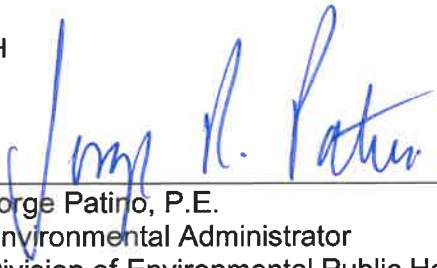
Mediation is not available in this proceeding.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (4052 Bald Cypress Way, Bin A-02) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

Executed in the City of West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT OF HEALTH
PALM BEACH COUNTY



Jorge Patino, P.E.
Environmental Administrator
Division of Environmental Public Health
800 Clematis Street, West Palm Beach, FL 33401
(561) 837-5900

MP/JH/JP

Enclosures: Permit File No. 138287-212-WC

CERTIFICATION OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Permit Issuance and all copies were mailed/electronically transmitted before the close of business on May 31, 2024 to those persons listed.

Clerk Stamp

FILING AND ACKNOWLEDGEMENT

Filed, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk



Date

Copies Furnished to:

Engineer of Record: Harrison Barron, P.E.

Florida DEP: Norva Blandin, via email

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Ron DeSantis
Governor

Joseph A. Ladapo, MD, PhD
State Surgeon General

Vision: To be the Healthiest State in the Nation

STATE OF FLORIDA
APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

PERMITTEE:

Paul Ward
Assistant Director
Village of Palm Springs
226 Cypress Lane
Palm Springs, FL 33461
pward@vpsfl.org

PWS ID NUMBER: 4501058
PERMIT NUMBER: 138287-212-WC
DATE OF ISSUE: May 30, 2024
EXPIRATION DATE: May 29, 2029
COUNTY: Palm Beach
PROJECT: Replacement Well 14R

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-550, 62-555 & 62-560. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

Construct:

- One Community Public Supply well, with a 40 HP submersible well pump.
- Associated piping, electrical controls and appurtenances.

The well is located and sized as follows:

Well Number	Latitude/Longitude	Motor HP	Pump Rating
14R	26° 38' 28" N / 80° 06' 30.4" W	40	750 GPM @ 140.5' TDH

In Accordance With: Engineering Sheets G-1, G-2, C-1, C-2, M-1, S-1, CD-1, CD-2, E-1 through E-11, and I-1 through I-5 and Preliminary Design Report and Request for Additional Information Response per Florida Department of Environmental Protection Variance Approval, received May 30, 2024 and Application Form DEP 62-555.900(1) and Engineering Report received May 13, 2024.

Located: Approximately 275 north from the Lake Worth Drainage District L-9 Canal and 40 feet east of the projected centerline of Donald Rd.

To Serve: Village of Palm Springs Utilities

Subject To: General Conditions 1 – 15, Regulatory Conditions 1 – 11, Construction Standards 1 – 8, Operational Requirements 1 – 6, Monitoring Provisions 1- 4 and Clearance Requirements 1 – 3.



A. General Conditions

The permittee shall be aware of and operate under the Permit Conditions below. These applicable conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes. [F.A.C. Rule 62-555.533(1)]

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these *conditions*.
2. *This* permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times (reasonable time may depend on the nature of the concern being investigated), access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (BACT)
 - b. Determination of Prevention of Significant Deterioration (PSD)
 - c. Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
 - d. Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation)

required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

- c. Records of monitoring information shall include:
 - i. the date, exact place, and time of sampling or measurements;
 - ii. the person responsible for performing the sampling or measurements;
 - iii. the dates analyses were performed;
 - iv. the person responsible for performing the analyses;
 - v. the analytical techniques or methods used;
 - vi. the results of such analyses.

- 15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

B. Regulatory Section

- 1. All construction must be in accordance with this permit. Before commencing work on project changes for which a construction permit modification is required per 62-555.536(1), the permittee shall submit to the Department a written request for a permit modification. Each such request shall be accompanied by one copy of a revised construction permit application, the proper processing fee and one copy of either a revised preliminary design report or revised drawings, specifications and design data. [F.A.C. Rule 62-555.536].
- 2. Permitted construction or alteration of public water supply systems must be supervised during construction by a professional engineer registered in the State of Florida if the project was designed under the responsible charge of a professional engineer licensed in the State of Florida. The permittee must retain the service of a professional engineer registered in the State of Florida to observe that construction of the project is in accordance with the engineering plans and specifications as submitted in support of the application for this permit. [F.A.C. Rule 62-555.520(3)].
- 3. If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoe remains, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at 850.245.6333 or 800.847.7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources and the permitting agency. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

4. If delays will cause project completion to extend beyond the expiration date of this permit, the permittee shall submit to the Department a request to extend the expiration date of this permit including the appropriate processing fee. This request shall specify the reasons for the delay and shall be submitted to the Department for approval prior to the expiration date of this permit. Note that no specific construction permit shall be extended so as to remain in effect longer than five years. [F.A.C. Rule 62-555.536(4)].
5. In accordance with General Condition #11 of this permit, this permit is transferable only upon Department approval. Persons proposing to transfer this permit must apply jointly for a transfer of the permit within 30 days after the sale or legal transfer of ownership of the permitted project that has not been cleared for service by the Department using form, 62-555.900(8), Application for Transfer of a PWS Construction Permit along with the appropriate fee. [F.A.C. Rule 62-555.536(5)]
6. This permit satisfies Drinking Water permitting requirements only and does not authorize construction or operation of this facility prior to obtaining all other necessary permits from other program areas within the Department, or required permits from other state, federal, or local agencies.
7. This permit is for CONSTRUCTION ONLY of the distribution system project. This permit shall not infer that the clearance necessary for connection will be granted. Any such clearance shall be granted only when the connection point has been permitted and cleared for use by the Department and the public water system to which the water main extension will be connected, has the capacity necessary to meet the design water demands of all customers to be served by the water main extension. Partial clearance may be granted, if required.
8. If gasoline contamination is found at the construction site, work shall be stopped and the proper authorities notified. With the approval of the Department, ductile iron pipe and fittings, and solvent resistant gaskets materials shall be used in the contaminated area. The ductile pipe shall be used in the contaminated area. The ductile iron pipe shall extend 100 feet beyond any solvent noted. Any contaminated soil that is excavated shall be placed on an impermeable mat, covered with waterproof covering, and held for disposal. If the site cannot be properly cleaned, then consultation with the Department is necessary prior to continuing with the project construction.
9. This permit does not constitute approval of construction on jurisdictional wetland areas; therefore, such approval must be obtained separately from the Water Management District or from DEP ERP Section, as applicable, Permittee shall provide a copy of the permit approval to the Department if water main installation involves activities on wetlands.
10. Suppliers of water shall notify the appropriate DEP District Office or ACHD and affected water customers by no later than the previous business day before initiating any planned permanent or temporary conversion from free chlorine to chloramines or vice versa for disinfection. [F.A.C. Rule 62-555.350(10)(c)]
11. Permittee shall ensure that the well and drinking water treatment facilities will be protected to prevent tampering, vandalism, and sabotage as required by Rule 62-555.315(1) & 62-555.320(5), F.A.C.

C. Construction Standards

1. All products, including paints, which shall come into contact with potable water, either directly or indirectly, shall conform with National Sanitation Foundation (NSF) International, Water Chemicals Codex, Food Chemicals Codex, American Water Works Association (AWWA) Standards and the Food and Drug Administration, as provided in Rule 62-555.320(3), F.A.C.
2. Water supply facilities, including mains, pipe, fittings, valves, fire hydrants and other materials shall be installed in accordance with the latest applicable AWWA Standards and Department rules and regulations. The system shall be pressure and leak tested in accordance with AWWA Standard C600 C603, or C605, as applicable, and disinfected in accordance with AWWA Standard C651-653, as well as in accordance with Rule 62-555.340, F.A.C.
3. The installation or repairs of any public water system, or any plumbing in residential or nonresidential facilities providing water for human consumption, which is connected to a public water system shall be lead free in accordance with Rule 62-555.322, F.A.C.
4. When any existing asbestos cement (AC) pipes are replaced under this permit, the permittee shall do so in accordance with the applicable rules of Federal Asbestos Regulation and Florida DEP requirements. **For specific requirements applicable to AC pipes, the permittee should contact the Air and Waste Management section at DOH Palm Beach County prior to commencing any such activities at (561) 837-5900 #3. Please be aware that a notification is required to be submitted to the Department for a regulated project.**
5. Setback distances between potable water wells and sanitary hazards shall be in accordance with 62-555.312, F.A.C. Reclaimed water land application areas must not be located within the setback distance from potable water supply wells established in Chapter 62-610, F.A.C.
6. Permittee shall maintain vertical clearance and horizontal separation between water mains and sanitary sewers, storm sewers, etc. unless approved otherwise by the Department, as provided in Rule 62-555.314, F.A.C., and Section 8.6 of *Recommended Standards for Water Works*, a manual adopted by reference in Rule 62-555.330(3), F.A.C.
7. The new or altered aboveground piping at the drinking water treatment plant shall be color coded and labeled as recommended in Section 2.14 of "Recommended Standards for Water Works, 1997 Edition". [F.A.C. Rule 62-555.320(10)]
8. Permittee shall ensure that there shall be no cross-connection with any non-potable water source in accordance with Rule 62-555.360, F.A.C.

This Space is Intentionally Left Blank.

D. Operational Requirements

1. The supplier of water shall operate and maintain the public water system so as to comply with applicable standards in F.A.C. Rule 62-550 and 62-555.350.
2. The permittee shall provide an operation and maintenance manual for the new or altered treatment facilities to fulfill the requirements under subsection 62-555.350(13), F.A.C. The manual shall contain operation and control procedures, and preventative maintenance and repair procedures, for all plant equipment and shall be made available for reference at the plant or at a convenient location near the plant. Bound and indexed equipment manufacturer manuals shall be considered sufficient to meet the requirements of the subsection.
3. The permittee shall submit a monthly operations report (MOR) DEP Form 62-555.900, to the Department no later than the tenth of each succeeding month.
4. The permittee shall have complete record drawings produced for the project in accordance with Rule 62-555.530(4), F.A.C.
5. The permittee or suppliers of water shall telephone the State Warning Point (SWP), at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system in accordance with the F.A.C. Rule 62-555.350(10).
6. The rate of recycled water to the head of the plant will not increase with the installation of the upgrades of this permit.

E. Monitoring Provisions

1. Permittee shall follow the guidelines of Chapters 62-550, 62-555, and 62-560, F.A.C., regarding public drinking water system standards, monitoring, reporting, permitting, construction, and operation.

This facility is a Community Water System as defined in F.A.C. Rule 62-550.200(12) and shall comply with the applicable chemical, radiological, lead and copper, and bacteriological monitoring requirements of F.A.C. Rule 62-550. Such requirements shall be initiated within the quarter that the water treatment facility is placed into service (i.e. January—March or April—June, the preceding are examples of quarters) and the results submitted to the Department.

2. The water treatment plant shall maintain throughout the distribution system a minimum combined chlorine residual of 0.6 mg/l or its equivalent. A minimum system pressure of 20 psi must be maintained throughout the system. Also, safety equipment shall be provided and located outside of chlorine room.
3. Video taping the subject sewer line in the area doesn't meet the setback and continued monitoring of the well water per Florida Department of Environmental Protection Variance dated May 30, 2024.

F. Clearance Requirements

1. The permittee must instruct the engineer of record to request system clearance from the Department within sixty (60) days of completion of construction, testing and disinfecting the

system. Bacteriological test results shall be considered unacceptable if the test were completed more than 60 days before the Department received the results. [F.A.C. Rule 62-555.340(2)(c)]

Permitted construction or alteration of a public water system may not be placed into service until a letter of clearance has been issued by this Department. [F.A.C. Rule 62-555.345]

2. Prior to placing this project into service, Permittee shall submit, at a minimum, all of the following to the Department for evaluation and approval for operation, as provided in Rules 62-555.340 and 62-555.345, F.A.C.:
 - a. the engineer's *Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components Into Operation* {DEP Form 62-555.900(9)};
 - b. certified record drawings, if there are any changes noted for the permitted project.
 - c. copy of a satisfactory pressure test of the process piping performed in accordance with AWWA Standards. [F.A.C. Rule 62-555.320(21)(a)(1)]
 - d. two consecutive days of satisfactory distribution bacteriological analytical results (see paragraph 3 below).
 - e. For new Community or Non-transient Non-community water systems, the permittee must provide a list of positions with employee names, titles and responsibilities. For the required licensed operator(s) provide a copy of the license specific to the water system for each operator. If a position is vacant, indicate the projected hiring date. Indicate the positions/employees that are responsible for acting on behalf of the water system in case of emergency, those authorized to spend money, or to make other decisions. Provide telephone numbers and email contact addresses for these responsible positions/employees. Show only positions/employee information pertaining to the water system. [F.A.C. Rule 62-555.525]
 - f. 10 satisfactory bacteriological analysis results performed on the raw water to be taken 10 consecutive weekdays, or taken twice a day, 6 hours apart for 5 consecutive weekdays.
 - g. satisfactory chemical clearance, to include Primary Inorganic Contaminants, Secondary Contaminants, Volatile Organic Contaminants (VOCs), Synthetic Organic Contaminants (SOCs, aka Pesticides and PCBs), Radionuclides (Gross Alpha, Radium-226, Radium-228, Uranium), Alkalinity, Dissolved Iron, Dissolved Oxygen, pH, Total Sulfide, and Turbidity results from a certified laboratory.

In order to facilitate the issuance of a letter of clearance, the Department requests that all of the above information be submitted as one package.

3. The new facilities shall be cleaned, disinfected, and bacteriologically cleared in accordance with Chapter 62-555, F.A.C. The bacteriological clearance data representative of the storage tank (two samples on consecutive days), the well discharge piping and distribution system (in accordance with the instructions for Bacteriological Sampling Locations shown below) and the untreated well water (two samples per day for 5 consecutive days collected at least six hours apart for each of the two wells) shall be submitted to the Department with the engineer's certification of construction completion. [Section 62-555.340 and 62-555.315(6)(b), F.A.C.].

Bacteriological Sampling Locations: Copies of satisfactory bacteriological analyses taken from locations within the distribution system or water main extension to be cleared, in accordance with

PERMITTEE: Paul Ward, Assistant Director
Village of Palm Springs Utilities
Well 14R

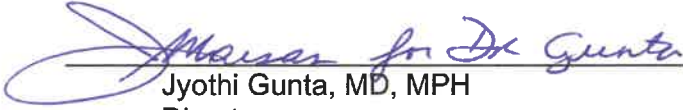
Certification/File No.: 138287-212-WC

Rules 62-555.315 (6), 62-555.340 and 62-555.330, F.A.C. and American Water Works Association (AWWA) Standard C 651-92 as follows:

- *The endpoint of the proposed addition;*
- *Any water lines branching off a main extension;*
- *Every 1,200 feet of water main;*
- *Each location shall be sampled on two separate days (at least 6 hours apart) with sample point locations and chlorine residual readings **clearly indicated** on the report and/or drawings.*
- *Bacteriological sample results will be considered unacceptable if the tests were completed more than 60 days before the Department receives the results.*

Issued This 31 Day of May 2024

**STATE OF FLORIDA DEPARTMENT OF HEALTH
PALM BEACH COUNTY**


Jyothi Gunta, MD, MPH
Director



138287-212-WC

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

See page 4 for instructions.

I. General Project Information

A. Name of Project: Village of Palm Springs Replacement of Surficial Aquifer Well No. 14

B. Description of Project and Its Purpose:

This project includes the replacement of one (1) existing surficial aquifer production well, Well No. 14, with proposed Well No. 14R approx. 75 ft from the existing well within Village of Palm Springs Eastern Wellfield and serving the Village's Main Water Treatment Plant.

The proposed replacement well will have a 16-inch final PVC casing and 30-inch steel outer casing. The well will be provided with a submersible pump. The wellhead will be 316 stainless steel equipped with a pressure gauge, check valve, flow meter, and vent. The well site will be secured with a eight-foot chain link fence. The purpose of this project is to increase the reliability and improve the performance of the Village of Palm Springs Eastern Wellfield raw water supply system. This project is proposed to restore/increase the flow available from the existing well while improving the quality of raw water. Please note that Well No. 14R shall be equipped with a variable frequency drive (VFD) to prevent hard-starting of the well pump.

C. Does project create a "new system" as described under subsection 62-555.525(1), F.A.C.? ☐ Yes, and a completed copy of Form 62-555.900(20), New Water System Capacity Development Financial and Managerial Operations Plan, is attached. ☒ No.

D. Location of Project

1. County Where Project Located: Palm Beach

2. Description of Project Location:

The location of the surficial aquifer production well is depicted on the attached plans and described below: Existing Well No. 14 is located approx. 350 feet north from the Lake Worth Drainage District L-9 Canal waterline. Proposed Well No. 14R is located approx. 275 feet north from the Lake Worth Drainage District L-9 Canal waterline and 40 feet east of the projected centerline of Donald Rd.

3. Latitude and Longitude of Each New Treatment Plant and Each New Raw Water Source (attach additional sheets if necessary):

Name of New Treatment Plant or Raw Water Source	Latitude	Longitude
Well No. 14R	26 ° 38 ' 28.0 "N	80 ° 06 ' 30.4 "W
	° ' "N	° ' "W
	° ' "N	° ' "W
	° ' "N	° ' "W
	° ' "N	° ' "W

E. Estimate of Cost to Construct Project: \$1,953,212

F. Estimate of Dates for Starting and Completing Construction of Project: October 2024 - December 2025Florida Department of Health - PBC
Plan Review

G. Applicant

PWS/Company Name: Village of Palm Springs Utilities		PWS Identification No.: *4501058	
PWS Type: * ☒ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive			
Contact Person: Paul Ward		Contact Person's Title: Assistant Director, Utilities	
Contact Person's Mailing Address: 226 Cypress Lane			
City: Palm Springs		State: FL	Zip Code: 33461
Contact Person's Telephone Number: (561) 584-8200 x8716		Contact Person's Fax Number: (561) 304-4608	
Contact Person's E-Mail Address: pward@vpsfl.org			

* This information is required only if the applicant is a public water system (PWS).

H. Public Water System (PWS) Supplying Water to Project

PWS Name: Village of Palm Springs Utilities		PWS Identification No.: 4501058	
PWS Type: ☒ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive			
PWS Owner: Village of Palm Springs Utilities			
Contact Person: Paul Ward		Contact Person's Title: Assistant Director, Utilities	
Contact Person's Mailing Address: 226 Cypress Lane			
City: Palm Springs		State: FL	Zip Code: 33461
Contact Person's Telephone Number: (561) 584-8200 x8716		Contact Person's Fax Number: (561) 304-4608	
Contact Person's E-Mail Address: pward@vpsfl.org			

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

Project Name: Village of Palm Springs Replacement of Surficial Aquifer Well No. 14	Applicant: Village of Palm Springs Utilities
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I. Public Water System (PWS) that Will Own Project after It Is Placed into Permanent Operation

PWS Name: Village of Palm Springs Utilities		PWS Identification No.: * 4501058	
PWS Type: * ☒ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive			
PWS Owner: Village of Palm Springs Utilities			
Contact Person: Paul Ward		Contact Person's Title: Assistant Director, Utilities	
Contact Person's Mailing Address: 226 Cypress Lane			
City: Palm Springs		State: FL	Zip Code: 33461
Contact Person's Telephone Number: (561) 584-8200 x8716		Contact Person's Fax Number: (561) 304-4608	
Contact Person's E-Mail Address: pward@vpsfl.org			

* This information is required only if the owner/operator is an existing PWS.

J. Professional Engineer(s) or Other Person(s) in Responsible Charge of Designing Project*

Company Name: Holtz Consulting Engineers, Inc.	
Designer(s): Robert Harrison Barron III, P.E.	Title(s) of Designer(s): Associate Engineer
Qualifications of Designer(s):	
☒ Professional Engineer(s) Licensed in Florida – License Number(s): 91550	
☐ Public Officer(s) Employed by State, County, Municipal, or Other Governmental Unit of State†	
☐ Plumbing Contractor(s) Licensed in Florida – License Number(s): ^	
Mailing Address of Designer(s): 270 South Central Blvd., Suite 207	
City: Jupiter	State: FL Zip Code: 33458
Telephone Number of Designer(s): (561) 575-2005	Fax Number of Designer(s): (561) 575-2009
E-Mail Address(es) of Designer(s): Harrison.Barron@holtzconsulting.com	

* Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers licensed in Florida.

† Attach a detailed construction cost estimate showing that the cost to construct this project is \$10,000 or less.

^ Attach documentation showing that this project will be installed by the plumbing contractor(s) designing this project, documentation showing that this project involves a public water system serving a single property and fewer than 250 fixture units, and a detailed construction cost estimate showing that the cost to construct this project is \$50,000 or less.

II Certifications

A. Certification by Applicant

I am duly authorized to sign this application on behalf of the applicant identified in Part I.G of this application. I certify that, to the best of my knowledge and belief, this project complies with Chapter 62-555, F.A.C., and provides assurance of compliance with Chapter 62-550, F.A.C. I also certify that construction of this project has not begun yet.

 Signature and Date	5/13/24 Printed or Typed Name	Paul Ward Assistant Director, Utilities Title
------------------------	----------------------------------	---

B. Certification by PWS Supplying Water to Project

I am duly authorized to sign this application on behalf of the PWS identified in Part I.H of this application. I certify that said PWS will supply the water necessary to meet the design water demands for this project. I certify that, to the best of my knowledge and belief, said PWS's connection to this project will not cause said PWS to be, or contribute to said PWS being, in noncompliance with Chapter 62-550 or 62-555, F.A.C. I also certify that said PWS has reviewed the preliminary design report or drawings, specifications, and design data for this project and that said PWS considers the connection(s) between this project and said PWS acceptable as designed.

- Name(s) of Water Treatment Plant(s) to Which this Project Will Be Connected: East (Main) Water Treatment Plant
- Total Permitted Maximum Day Operating Capacity of Plant(s), gpd: 6,000,000
- Total Maximum Day Flow at Plant(s) as Recorded on Monthly Operating Reports During Past 12 Months, gpd: 3,104,000

 Signature and Date	5/13/24 Printed or Typed Name	Paul Ward Assistant Director, Utilities Title
------------------------	----------------------------------	---

APPLICATION FOR A SPECIFIC PERMIT TO CONSTRUCT PWS COMPONENTS

Project Name: Village of Palm Springs Replacement of Surficial Aquifer Well No. 14

Applicant: Village of Palm Springs Utilities

C. Certification by PWS that Will Own Project after It Is Placed into Permanent Operation

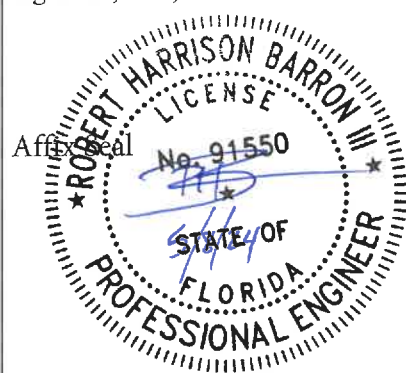
I am duly authorized to sign this application on behalf of the PWS identified in Part I.I of this application. I certify that said PWS will own this project after it is placed into permanent operation. I also certify that said PWS has reviewed the preliminary design report or drawings, specifications, and design data for this project and that said PWS considers this project acceptable as designed.

Signature and Date: 5/13/24 Paul Ward Assistant Director, Utilities
Printed or Typed Name Title

D. Certification by Professional Engineer(s) in Responsible Charge of Designing Project*

I, the undersigned professional engineer licensed in Florida, am in responsible charge of preparing the preliminary design report or drawings, specifications, and design data for this project. I certify that, to the best of my knowledge and belief, the design of this project complies with Chapter 62-555, F.A.C., and provides assurance of compliance with Chapter 62-550, F.A.C.

Signature, Seal, and Date:

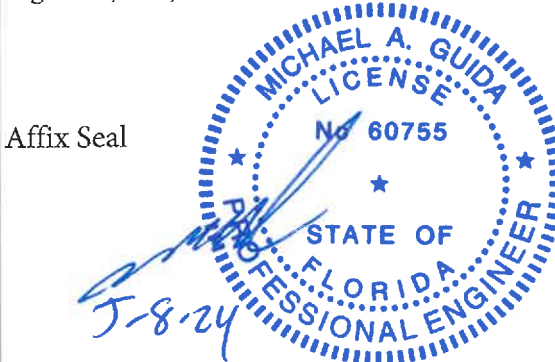


Printed/Typed Name: Robert Harrison Barron III, P.E.

License Number: 91550

Portion of Engineering Document(s) for Which Responsible:
Well head, piping, and civil/site work

Signature, Seal, and Date:

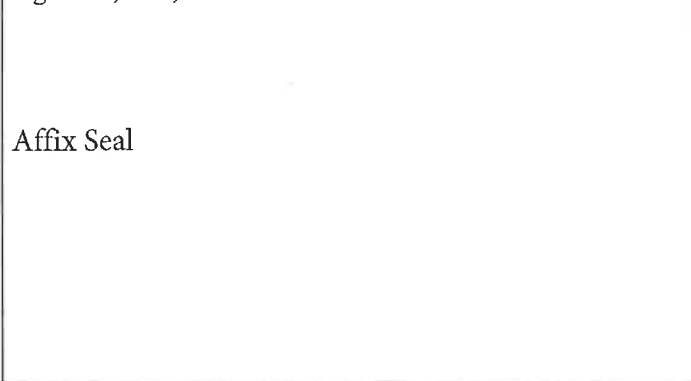


Printed/Typed Name: Michael A. Guida

License Number: 60755

Portion of Engineering Document(s) for Which Responsible:
Electrical and instrumentation improvements

Signature, Seal, and Date:

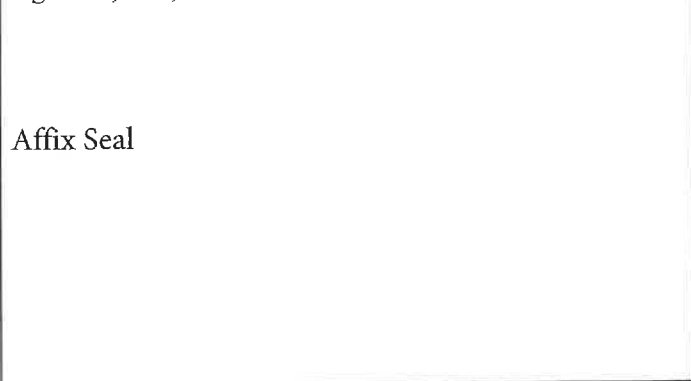


Printed/Typed Name:

License Number:

Portion of Engineering Document(s) for Which Responsible:

Signature, Seal, and Date:



Printed/Typed Name:

License Number:

Portion of Engineering Document(s) for Which Responsible:

* Except as noted in paragraphs 62-555.520(3) (a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers (PEs) licensed in Florida. If this project is being designed under the responsible charge of one or more PEs licensed in Florida, Part II.D of this application shall be completed by the PE(s) in responsible charge. If this project is not being designed under the responsible charge of one or more PEs licensed in Florida, Part II.D does not have to be completed.

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APPENDIX B

DAILY DEVELOPMENT LOGS

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APPENDIX C

DISINFECTION REPORTING FORM

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VILLAGE OF PALM SPRINGS
SURFICIAL AQUIFER WELL DISINFECTION REPORTING FORM

GENERAL INFORMATION

WELL NAME: _____ DATE: _____ WELLFIELD: _____ SUPERVISOR: _____
 COMMENTS: _____

WELL INFORMATION FOR CHEMICAL ESTIMATION

DEPTH TO BOTTOM OF CASING (FT): _____ DIAMETER OF BOREHOLE (IN): _____
 INSIDE DIAMETER OF CASING (IN): _____ INSIDE DIAMETER OF SCREEN (IN): _____
 TOTAL DEPTH OF SCREEN (FT): _____ DEPTH TO STATIC WATER LEVEL (FT): _____
 DEPTH TO TOP OF SCREEN (FT): _____ CASING AND SCREEN VOLUME (GAL): _____
 LENGTH OF SCREEN (FT): _____ TOTAL TREATMENT VOLUME VOLUME (GAL): _____

DISINFECTION CHEMICAL DATA

MANUFACTURER: _____ PRODUCT NAME: _____ AGE: _____
 DISINFECTION CHEMICAL TYPE: _____ CONCENTRATION (%): _____ EFFECTIVE CONCENTRATION (%): _____

DISINFECTION SOLUTION MIX

MIX RATIO CALCULATED BY: _____ TYPE OF EQUIPMENT TO BE DISINFECTED: _____

BATCH 1

VOLUME OF CHEMICAL (GAL): _____ VOLUME OF WATER (GAL): _____ STRENGTH OF MIX (mg/L): _____
 TESTED PROPERTIES OF MIX: CHLORINE RESIDUAL (mg/L)= _____ pH= _____
 TIME: _____ SOLUTION APPLICATION METHOD: _____ SOLUTION APPLICATION DEPTH: _____
 NOTES: _____

BATCH 2

VOLUME OF CHEMICAL (GAL): _____ VOLUME OF WATER (GAL): _____ STRENGTH OF MIX (mg/L): _____
 TESTED PROPERTIES OF MIX: CHLORINE RESIDUAL (mg/L)= _____ pH= _____
 TIME: _____ SOLUTION APPLICATION METHOD: _____ SOLUTION APPLICATION DEPTH: _____
 NOTES: _____

BATCH 3

VOLUME OF CHEMICAL (GAL): _____ VOLUME OF WATER (GAL): _____ STRENGTH OF MIX (mg/L): _____
 TESTED PROPERTIES OF MIX: CHLORINE RESIDUAL (mg/L)= _____ pH= _____
 TIME: _____ SOLUTION APPLICATION METHOD: _____ SOLUTION APPLICATION DEPTH: _____
 NOTES: _____

WELL SURGING

NUMBER OF SURGES: _____
 TIME OF SURGING: _____

SURGE WATER TESTING

CHLORINE RESIDUAL (mg/L): _____
 pH: _____

RECIRCULATION

RECIRCULATION RATE: _____
 DURATION OF RECIRCULATION: _____

RECIRCULATION WATER TESTING

CHLORINE RESIDUAL (mg/L): _____
 pH: _____

WELL PURGING

DATE: _____
 TIME: _____

PURGED WATER TESTING

TOTAL CONTACT TIME IN WELL: _____
 CHLORINE RESIDUAL (mg/L): _____
 pH: _____

DECHLORINATED DISCHARGE WATER

DATE: _____
 TIME: _____

DISCHARGE WATER TESTING

DISCHARGE LOCATION: _____
 CHLORINE RESIDUAL (mg/L): _____
 pH: _____

NOTES:

WELL CHLORINATION SOLUTION (50 mg/L)=0.4 GAL NaClO (12.5%) or 0.6 LBS Ca(ClO)₂ (72%) PER 1000 GAL WATER
 EQUIPMENT SPRAY CHLORINATION SOLUTION (200mg/L)=1.6 GAL NaClO (12.5%) OR 2.3 LBS Ca(ClO)₂ (72%) PER 1000 GAL WATER

GRAVEL PACK CHLORINATION SOLUTION (100 mg/L)=0.8 GAL NaClO (12.5%) OR 1.2 LBS Ca(ClO)₂ (72%) PER 1000 GAL WATER
 NaClO DETERIORATES AT APPROXIMATELY 5% TO 10% PER 30 DAYS OF STORAGE

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APPENDIX D

FDEP Safe Drinking Water Program Lab Reporting Format

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Florida Department of Environmental Protection Safe Drinking Water Program Laboratory Reporting Format

INSTRUCTIONS

This format is to be used by laboratories for reporting drinking water analyses to the appropriate Department of Environmental Protection (DEP) or Health Department offices (see below). For analysis results to be acceptable for compliance with Chapter 62-550, F.A.C., laboratories performing the analyses must be certified for those analyses in drinking water by the Florida Department of Health (DOH) and report results in accordance with Chapter 62-160, F.A.C. Computer generated or otherwise personalized reports will be accepted as long as they conform to this format, with the results reported using the same groups with the same contaminant IDs, contaminant names, units, column headings, and in the same order as in this format.

The contaminants shown in this example are those named in Rule 62-550, F.A.C. Other contaminants may be reported using this format as long as the contaminant IDs and names are the same as those found in the Safe Drinking Water Act. When applicable, results shall be reported using the data qualifier codes specified in the attached Table 1 of Rule 62-160, F.A.C. Parameters not reported need not be listed. Multiple samples for the same parameter can be reported under the same cover sheet as long as the sample locations are specific. Likewise, composite samples must be so identified so that if samples are from multiple plants and/or systems, credit for compliance will be given to all the plants/systems. Radionuclides samples that have been composited over time (multiple quarters) also have to be clearly identified so that proper credit for compliance will be given.

Send completed reports to the DEP District Office or DOH Health Department office which has jurisdiction over the water system. The 7-character PWS ID must be included on the report.

Northwest DEP District Office.....	160 Governmental Center, Pensacola, FL, 32502-5794.....	850.595-8300
Northeast DEP District Office	8800 Baymeadows Way West, Suite 100, Jacksonville, FL, 32256.....	904.256-1700
Central DEP District Office	3319 Maguire Blvd., Suite 232, Orlando, FL, 32803-3767.....	407.894-7555
Southeast DEP District Office	400 N. Congress Ave., Suite 200, West Palm Beach, FL, 33416.....	561.681-6600
Southeast DEP District Branch Office	1801 S.E. Hillmoor Dr., Suite C-204, Port St. Lucie, FL, 34952.....	772.398-2806
South DEP District Office	P.O. Box 2549, Ft. Myers, FL, 33902-2549	239.332-6975
Southwest DEP District Office	13051 N. Telecom Parkway, Temple Terrace, FL, 33637.....	813.632-7600
Broward County Health Department	2421 S.W. 6th Ave., Ft. Lauderdale, FL, 33315.....	954.467-4854
Dade County Health Department	1725 N.W. 167th St., Suite 119, Miami, FL, 33056.....	305.623-3552
Hillsborough County Health Department	P.O. Box 5135, Tampa, FL, 33675-5135.....	813.307-8059
Lee County Health Department	.60 Danley Dr., Unit 1, Ft. Myers, FL, 33907	239.274-2200
Palm Beach County Health Department.....	P.O. Box 29, West Palm Beach, FL, 33402	561.837-5900
Polk County Health Department.....	1290 Golfview Ave., 4 th Floor, Bartow, FL, 33830.....	863.519-8330
Sarasota County Health Department	1301 Cattleman Road, Sarasota, FL, 34232.....	941.378-6133
Volusia County Health Department.....	Environmental Engineering – Bin #180, Box 9190, Daytona Beach, FL, 32120-9190...	386.736-5436

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

DATA QUALIFIER CODES (From 62-160, Table 1)

The following qualifier codes shall be used by laboratories when reporting data values that either meet the specified descriptions outlined below or do not meet the quality control criteria of the laboratory. They are categorized on these 2 pages as Acceptable, Not Acceptable, or May Be Acceptable for compliance.

The following codes (B,D,E,I,K,L,M,U,V,!) ARE ACCEPTABLE for use with results submitted for compliance with 62-550 and 62-555.	
SYMBOL	MEANING
B	Results based upon colony counts outside the acceptable range. Applies to microbiological tests and specifically to membrane filter colony counts. It is to be used if the colony count is generated from a plate in which the total number of coliform colonies is outside the method indicated ideal range. This code is not to be used if a 100 mL sample has been filtered and the colony count is less than the lower value of the ideal range.
D	Measurement was made in the field (i.e., in situ). This code applies to any value (except field measurements of pH, specific conductance, dissolved oxygen, temperature, total residual chlorine, transparency, turbidity or salinity) that was obtained under field conditions using approved analytical methods. If the parameter code specifies a field measurement (e.g., "Field pH"), this code is not required.
E	Indicates that extra samples were taken at composite stations.
I	The reported value is greater than or equal to the laboratory method detection limit but less than the laboratory practical quantitation limit.
K	Off-scale low. Actual value is known to be less than the value given. This code shall be used if the value is less than the lowest calibration standard and the calibration curve is known to be non-linear; or the value is known to be less than the reported value based on sample size, dilution. Shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
L	Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
M	When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than or equal to the method detection limit. If the value is less than the method detection limit use "T" below.
U	Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" below).
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value. Note: unless specified by the method, the value in the blank shall not be subtracted from associated samples.
!	Data deviate from historically established concentration ranges.
The following codes (A,F,H,N,O,T,Z,?,*) are NOT ACCEPTABLE for use with results submitted for compliance with 62-550 and 62-555.	
A	Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
F	When reporting species: F indicates the female sex.
H	Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

DATA QUALIFIER CODES (From 62-160, Table 1) CONTINUED

N	Presumptive evidence of presence of material. This qualifier shall be used if the component has been tentatively identified based on mass spectral library search; or there is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
O	Sampled, but analysis lost or not performed.
T	Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
Z	Too many colonies were present for accurate counting. Historically, this condition has been reported as “too numerous to count” (TNTC). The “Z” qualifier code shall be reported when the total number of colonies of all types is more than 200 in all dilutions of the sample. When applicable to the observed test results, a numeric value for the colony count for the microorganism tested shall be estimated from the highest dilution factor (smallest sample volume) used for the test and reported with the qualifier code.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not reported due to interference.
The following codes (J,Q,R,Y) MAY OR MAY NOT BE ACCEPTABLE for use with results submitted for compliance with 62-550 and 62-555, depending on the parameter(s) and/or the circumstances. Results with these codes will be evaluated on a case by case basis.	
SYMBOL	MEANING
J	Estimated value. A “J” value shall be accompanied by a detailed explanation for designating the value as estimated. Where possible, the lab shall report whether the actual value is estimated to be less than or greater than the reported value. A “J” value shall not be used as a substitute for K, L, M, T, V, or Y, however, if additional reasons exist for identifying the value as an estimate (e.g., matrix spiked failed to meet acceptance criteria), the “J” code may be added to a K, L, M, T, V, or Y. Examples of situations in which a “J” code must be reported include: instances where a quality control item associated with the reported value failed to meet the established quality control criteria (the specific failure must be identified); instances when the sample matrix interfered with the ability to make any accurate determination; instances when data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample); instances when the analyte was detected at or above the method detection limit in a blank other than the method blank (such as calibration blank or field-generated blanks and the value of 10 times the blank value was equal to or greater than the associated sample value); or instances when the field or laboratory calibrations or calibration verifications did not meet calibration acceptance criteria.
Q	Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
R	Significant rain in the past 48 hours. (Significant rain typically involves rain in excess of 1/2 inch within the past 48 hours.) This code shall be used when the rainfall might contribute to a lower than normal value.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

PUBLIC WATER SYSTEM INFORMATION (to be completed by sampler – please type or print legibly)

System Name: _____ PWS I.D. #: _____

System Type (check one): ☐ Community ☐ Nontransient Noncommunity ☐ Transient Noncommunity

Address: _____

City: _____ ZIP Code: _____

Phone # _____ Fax #: _____ E-Mail Address: _____

SAMPLE INFORMATION (to be completed by sampler)

Sample Number: _____ Sample Date: _____ Sample Time: _____ AM PM (Circle One)

Sample Location (be specific) : _____ Location Code: _____

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids): _____ mg/L Field pH: _____

Sample Type (Check Only One)

- ☐ Distribution
- ☐ Entry Point (to Distribution)
- ☐ Plant Tap (not for compliance with 62-550)
- ☐ Raw (at well or intake)
- ☐ Max Residence Time
- ☐ Ave Residence Time
- ☐ Near First Customer

Reason(s) for Sample (Check all that apply)

- ☐ Routine Compliance with 62-550
- ☐ Confirmation of MCL Exceedance*
- ☐ Composite of Multiple Sites**
- ☐ Other: _____
- ☐ Replacement (of Invalidated Sample)
- ☐ Special (not for compliance with 62-550)
- ☐ Clearance (permitting)

Sampling Procedure Used or Other Comments: _____

*See 62-550.500(6) for requirements and restrictions.
And 62-550.512(3) for nitrate or nitrite exceedances.

**See 62-550.550(4) for requirements and
attach a results page for each site.

SAMPLER CERTIFICATION

I, _____, _____, do HEREBY CERTIFY
(Print Name) (Print Title)

that the above public water system and sample collection information is complete and correct.

Signature: _____ Date: _____

Certified Operator #: _____ Phone #: _____ Sampler's Fax #: _____

Sampler's E-mail: _____

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFICATION INFORMATION (to be completed by lab – please type or print legibly)

Lab Name: _____ Florida DOH Certification #: _____ Certification Expiration Date: _____

ATTACH CURRENT DOH ANALYTE SHEET*

Address: _____ Phone #: _____

Were any analyses subcontracted? ☐ Yes ☐ No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

ANALYSIS INFORMATION (to be completed by lab) Date Sample(s) Received: _____

PWS ID (From Page 1): _____ Sample Number (From Page 1): _____ Lab Assigned Report # or Job ID: _____

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

Inorganics

- ☐ All Except Asbestos
☐ Partial
☐ Nitrate
☐ Nitrite
☐ Asbestos

Synthetic Organics

- ☐ All 30
☐ All Except Dioxin
☐ Partial
☐ Dioxin Only

Volatile Organics

- ☐ All 21
☐ Partial

Disinfection Byproducts

- ☐ Trihalomethanes
☐ Haloacetic Acids
☐ Chlorite
☐ Bromate

Radionuclides

- ☐ Single Sample
☐ Qtrly Composite**

Secondaries

- ☐ All 14
☐ Partial

LAB CERTIFICATION

I, _____, _____, do HEREBY CERTIFY
(Print Name) (Print Title)

that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: _____ Date: _____

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES
NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER. (Non-detects reported as "BDL" or with a "<" are not acceptable.)

COMPLIANCE DETERMINATION (to be completed by DEP or DOH -- attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐ Yes ☐ No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

INORGANIC CONTAMINANTS
62-550.310(1)

Report Number / Job ID: _____

PWS ID (From Page 1): _____

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier*	Analytical Method	Lab MDL	Analysis Date	Analysis Time	DOH Lab Certification #
1040	Nitrate (as N)	10	mg/L							E
1041	Nitrite (as N)	1	mg/L							E
1005	Arsenic	0.010	mg/L							E
1010	Barium	2	mg/L							E
1015	Cadmium	0.005	mg/L							E
1020	Chromium	0.1	mg/L							E
1024	Cyanide	0.2	mg/L							E
1025	Fluoride	4.0	mg/L							E
1030	Lead	0.015	mg/L							E
1035	Mercury	0.002	mg/L							E
1036	Nickel	0.1	mg/L							E
1045	Selenium	0.05	mg/L							E
1052	Sodium	160	mg/L							E
1074	Antimony	0.006	mg/L							E
1075	Beryllium	0.004	mg/L							E
1085	Thallium	0.002	mg/L							E
1094	Asbestos	7 MFL	MFL							E

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SECONDARY CONTAMINANTS
62-550.320

Report Number / Job ID: _____

PWS ID (From Page 1): _____

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier*	Analytical Method	Lab MDL	Analysis Date	Analysis Time	DOH Lab Certification #
1002	Aluminum	0.2	mg/L							E
1017	Chloride	250	mg/L							E
1022	Copper	1	mg/L							E
1025	Fluoride	2.0	mg/L							E
1028	Iron	0.3	mg/L							E
1032	Manganese	0.05	mg/L							E
1050	Silver	0.1	mg/L							E
1055	Sulfate	250	mg/L							E
1095	Zinc	5	mg/L							E
1905	Color	15	CU							E
1920	Odor	3	TON							E
1925	pH (field pH from page 1)	6.5 - 8.5								E
1930	Total Dissolved Solids	500	mg/L							E
2905	Foaming Agents	0.5	mg/L							E

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

DISINFECTION BYPRODUCTS

62-550.310(3)

Report Number / Job ID: _____

Disinfectant Residual (mg/L): _____

PWS ID (From Page 1): _____

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier*	Analytical Method	Lab MDL	Regulatory MRL**	Analysis Date	Analysis Time	DOH Lab Certification #
1009	Chlorite	1000	µg/L					20***			E
1011	Bromate	10	µg/L					5.0 or 1.0****			E

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier*	Analytical Method	Lab MDL	Regulatory MRL**	Analysis Date	Analysis Time	DOH Lab Certification #
2450	Monochloroacetic Acid	N/A	µg/L					2.0			E
2451	Dichloroacetic Acid	N/A	µg/L					1.0			E
2452	Trichloroacetic Acid	N/A	µg/L					1.0			E
2453	Monobromoacetic Acid	N/A	µg/L					1.0			E
2454	Dibromoacetic Acid	N/A	µg/L					1.0			E
2456	Total Haloacetic Acids (HAA5)	60	µg/L					---			E

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier*	Analytical Method	Lab MDL	Regulatory MRL**	Analysis Date	Analysis Time	DOH Lab Certification #
2941	Chloroform	N/A	µg/L					1.0			E
2942	Bromoform	N/A	µg/L					1.0			E
2943	Bromodichloromethane	N/A	µg/L					1.0			E
2944	Dibromochloromethane	N/A	µg/L					1.0			E
2950	Total Trihalomethanes (TTHM)	80	µg/L					---			E

** Laboratories are required to adhere to the minimum reporting level (MRL) requirements of 40 CFR 141.131(b)(2)(iv).

*** Applicable to monitoring as prescribed in 40 CFR 141.132.(b)(2)(i)(B) and (b)(2)(ii).

**** Laboratories that use EPA Methods 317.0 Revision 2.0, 326.0 or 321.8 must meet a 1.0 µg/L MRL for bromate.

NOTE: Do not round values. Report results to the accuracy, precision, and sensitivity of the analytical method used.

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

RADIONUCLIDES
62-550.310(6)

Report Number / Job ID: _____

PWS ID (From Page 1): _____

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier*	Analytical Method	Lab MDL	RDL	Analysis Error	Analysis Date	Analysis Time	DOH Lab Certification #
4000	Gross Alpha (Excl Uranium)	15	pCi/L	**				3				E
4002	Gross Alpha (Incl Uranium)	***	pCi/L					3				E
4006	Combined Uranium**** (U-234, U-235, & U-238)	20	pCi/L					.67				E
		30	µg/L					1				E
4020	Radium-226	5	pCi/L					1				E
4030	Radium-228							1				E

** If the result exceeds 5 pCi/L, a measurement for radium-226 is required. Uranium is reported separately under Contam ID 4006.

*** If the results exceed 5 pCi/L, a measurement for radium-226 is required. If the results exceed 15 pCi/L, a measurement for Combined Uranium must be reported separately. The DEP/DOH will subtract the U value from the Gross Alpha (ID 4002) to determine compliance with MCL for Gross Alpha (Excl. U) of 15pCi/L. If the result for ID 4002 Gross Alpha (Including Uranium) does not exceed 15pCi/L, Combined Uranium need not be measured nor reported.

**** If using Uranium testing methods ASTM D5174 or EPA 200.8 only, then Analysis Error need not be reported.

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

VOLATILE ORGANICS
62-550.310(4)(a)

Report Number / Job ID: _____

PWS ID (From Page 1): _____

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier*	Analytical Method	Lab MDL	RDL	Analysis Date	Analysis Time	DOH Lab Certification #
2378	1,2,4-Trichlorobenzene	70	µg/L					0.5			E
2380	cis-1,2-Dichloroethylene	70	µg/L					0.5			E
2955	Xylenes (total)	10,000	µg/L					0.5			E
2964	Dichloromethane	5	µg/L					0.5			E
2968	o-Dichlorobenzene	600	µg/L					0.5			E
2969	para-Dichlorobenzene	75	µg/L					0.5			E
2976	Vinyl Chloride	1	µg/L					0.5			E
2977	1,1-Dichloroethylene	7	µg/L					0.5			E
2979	trans-1,2-Dichloroethylene	100	µg/L					0.5			E
2980	1,2-Dichloroethane	3	µg/L					0.5			E
2981	1,1,1-Trichloroethane	200	µg/L					0.5			E
2982	Carbon tetrachloride	3	µg/L					0.5			E
2983	1,2-Dichloropropane	5	µg/L					0.5			E
2984	Trichloroethylene	3	µg/L					0.5			E
2985	1,1,2-Trichloroethane	5	µg/L					0.5			E
2987	Tetrachloroethylene	3	µg/L					0.5			E
2989	Monochlorobenzene	100	µg/L					0.5			E
2990	Benzene	1	µg/L					0.5			E
2991	Toluene	1,000	µg/L					0.5			E
2992	Ethylbenzene	700	µg/L					0.5			E
2996	Styrene	100	µg/L					0.5			E

NOTE: Results indicating non-detection with a reported lab MDL > .5 µg/L will not be accepted for compliance.

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SYNTHETIC ORGANICS

62-550.310(4)(b)

Report Number / Job ID: _____ PWS ID (from Page 1): _____

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier*	Analytical Method	Lab MDL	RDL	Extraction Date	Analysis Date	Analysis Time	DOH Lab Certification #
2005	Endrin	2	µg/L					0.01				E
2010	Lindane	0.2	µg/L					0.02				E
2015	Methoxychlor	40	µg/L					0.1				E
2020	Toxaphene	3	µg/L					1				E
2031	Dalapon	200	µg/L					1				E
2032	Diquat	20	µg/L					0.4				E
2033	Endothall	100	µg/L					9				E
2034	Glyphosate	700	µg/L					6				E
2035	Di(2-ethylhexyl)adipate	400	µg/L					0.6				E
2036	Oxamyl (Vydate)	200	µg/L					2				E
2037	Simazine	4	µg/L					0.07				E
2039	Di(2-ethylhexyl)phthalate	6	µg/L					0.6				E
2040	Picloram	500	µg/L					0.1				E
2041	Dinoseb	7	µg/L					0.2				E
2042	Hexachlorocyclopentadinene	50	µg/L					0.1				E
2046	Carbofuran	40	µg/L					0.9				E
2050	Atrazine	3	µg/L					0.1				E
2051	Alachlor	2	µg/L					0.2				E
2063	2,3,7,8-TCDD (Dioxin)	0.03	ng/L					0.005				E
2065	Heptachlor	0.4	µg/L					0.04				E
2067	Heptachlor Epoxide	0.2	µg/L					0.02				E
2105	2,4-D	70	µg/L					0.1				E
2110	2,4,5-TP (Silvex)	50	µg/L					0.2				E
2274	Hexachlorobenzene	1	µg/L					0.1				E
2306	Benzo(a)pyrene	0.2	µg/L					0.02				E
2326	Pentachlorophenol	1	µg/L					0.04				E
2383	Polychlorinated biphenyls (PCBs)	0.5	µg/L					0.1				E
2931	Dibromochloropropane	0.2	µg/L					0.02				E
2946	Ethylene Dibromide (EDB)	0.02	µg/L					0.01				E
2959	Chlordane	2	µg/L					0.2				E

NOTE: Results indicating non-detection with a reported lab MDL >50% of the MCL will not be accepted for compliance.

**Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format**

OTHER CONTAMINANTS

Report Number / Job ID: _____

PWS ID (From Page 1): _____

[illegible]

APPENDIX E

Preconstruction Salvage Form

PRECONSTRUCTION SALVAGE FORM

Plant:

Well:

Well Item	Return to Plant	Contractor to Dispose
Pump		
Motor		
Pump and Motor Drop Pipe and Foot Valve		
Aboveground Discharge Piping		
Check Valve		
Wellhead Flange		
Air Release Valve Assembly		
Pipe Supports		
Couplings		
Valves:		
Fittings (DIP):		
Fittings (MJ):		
Instruments:		
Flow Meter		
Conductivity Meter		
Pressure Gage and Pressure Transmitter		
Level Transmitter		
Electrical Control Panel Components:		
VFD Drive and Air Condition Unit		
Soft Starters, and Breakers		
Control Panel		
Cables and Conduits		
Additional Items:		
Remote Telemetry Unit (RTU) Panel & Antenna		

NOTE: The Contractor is responsible for removal of all debris from the site not indicated on this form.

Additional Notes:

Plant Operator/Manager



Village of Palm Springs

UTILITIES DEPARTMENT

Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator Addendum No. 1 August 19, 2024

BIDS DUE: 2:00 PM, Local Time, 8/22/2024

TO ALL VENDORS BIDDING ON THIS PROJECT:

The changes, additions, substitutions, and/or deletions contained in Addendum No. 1 are hereby made a part of the Bid Documents for the **Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator** project, fully and completely as if the same were fully set forth herein.

IN THE PLANS

1. Details Sheet CD-2:

Delete:

Entire Details Sheet CD-2

Replace with:

Entire Details Sheet CD-2 as revised per Revision No. 1 and as included herein.

2. Electrical Plan Sheets:

Delete:

Entire Sheet Nos. E-2, E-3, E-5, E-7, and E-11

Replace with:

Entire Sheet Nos. E-2, E-3, E-5, E-7, and E-11 as revised per Addendum No. 1 Revision No. 1 and as included herein.

Addendum No. 1

IN THE SPECIFICATIONS

1. Bidding Requirements, Section 00410 – Bid Form

Delete:

Section 00410 in its entirety.

Replace with:

Revised Section 00410 attached herein.

2. Contract Forms, Section 00520 – Agreement

Delete:

Section 00520 in its entirety.

Replace with:

Revised Section 00520 attached herein.

3. Technical Specifications, Section 01200 – Measurement and Payment

Delete:

Section 01200 in its entirety.

Replace with:

Revised Section 01200 attached herein.

4. Technical Specifications, Section 02820 – Chain Link Fence

Delete:

Section 02820 in its entirety.

Replace with:

Revised Section 02820 attached herein.

Addendum No. 1

5. Technical Specifications, Section 16000 – Electrical General Requirements

Delete:

Section 16000 in its entirety.

Replace with:

Revised Section 16000 attached herein.

Receipt acknowledged and conditions agreed to the _____ day of _____, 2024.

Bidder

By

ATTACHMENTS

ATTACHMENT 1 RESPONSES TO BIDDER QUESTIONS

ATTACHMENT 2 DETAILS – SHEET CD-2 – ADDENDUM NO. 1

ATTACHMENT 3 ELECTRICAL PLAN SHEET NOS. E-2, E-3, E-5, E-7, AND E-11 –
ADDENDUM NO. 1

ATTACHMENT 4 SECTION 00410 – BID FORM – ADDENDUM NO. 1

ATTACHMENT 5 SECTION 00520 – AGREEMENT – ADDENDUM NO. 1

ATTACHMENT 6 SECTION 01200 – MEASUREMENT AND PAYMENT –
ADDENDUM NO. 1

ATTACHMENT 7 SECTION 02820 – CHAIN LINK FENCE – ADDENDUM NO. 1

ATTACHMENT 8 SECTION 16000 – ELECTRICAL GENERAL REQUIREMENTS –
ADDENDUM NO. 1

END OF ADDENDUM

ATTACHMENT 1

RESPONSES TO BIDDER QUESTIONS

RESPONSES TO BIDDER QUESTIONS

Question 1: Requesting that all mentions of reverse air drilling be removed from the Contract Documents.

Response 1: No changes to proposed drilling methodology are proposed herein.

Question 2: Is there site lighting planned for the project?

Response 2: There is no site lighting planned for this project.

Question 3: Specific electrical Note 1 calls out directional boring at the two entrances to the circle of Kirklane Elementary School. Since the total run of conduit is over 1,000 feet, there will probably need to be hand holes or manholes installed on the north side of the north entrance and the south side of the south entrance with a directional bore in between. Is there a spec section or drawing detail for hand holes or manholes?

Response 3: Please see “In the Plans” Item No. 2 above and attached revised plan Sheet Nos. E-2, E-7, and E-11 in Attachment No. 3.

Question 4: The details for the pole rack, flow meter, and antenna all reference grounding to the ground grid, but there is no ground grid or grounding plan shown. Drawing E—1, note 13, mentions dimensional requirements for grounding and the grounding system on the drawings. Can clarification be provided on what is required for grounding?

Response 4: Please see “In the Plans” Item No. 2 above and attached revised plan Sheet No. E-5 in Attachment No. 3.

Question 5: Can we find out the phone number for the FPL coordination? There is a new handhole shown at the base of the FPL Pole for the new service to Well 14 but this is typically provided by FP&L. We will need to reach out to them to confirm.

Response 5: Contractor may use the below listed contact information for FPL coordination.

Jonathan Muñoz – (561) 616-1627

Question 6: Who is responsible for filling the LP tanks? Do they need to be refilled after testing?

Response 6: Please see Section 01200.3.02.AA Pay Item No. 29. This pay item “includes the initial LPG filling for the tanks as well as topping off the tanks as necessary post-testing / start-up.

Question 7: Line items 22 and 23 both include bacteriological testing. Please clarify.

Response 7: Please see “In the Specifications” Item No. 1 above and Attachment No. 3.

Question 8: Plans call for 6' fence, specs calls for 8' fence. Please clarify.

Response 8: Please see "In the Plans" Item No. 1 above, "In the Specifications" Item No. 4 above and Attachment Nos. 2 and 7.

Question 9: Will FPL be able to power the new Well 14R and the existing well at the same time to allow for startup and testing of the new well?

Response 9: Please see "In the Specifications" Item No. 5 above and attached revised Section 16000 in Attachment No. 8.

Existing Well No. 14 and Proposed Well No. 14R shall not require simultaneous operation.

Question 10: How many linear feet of pipe need to be restrained for each 20" line stop?

Response 10: Line stops shall be field adjusted to reduce restraining of existing raw water main to the greatest extent possible. It is not anticipated that restraining of the existing raw water main will be required for the northern proposed line stop. The southern proposed line stop shall be restrained using bell restraints or shall be field adjusted further south as necessary and in coordination with OWNER/ENGINEER to effectively restrain using weight of existing pipe.

Question 11: Provide info for concrete pad / jacket required for 20" line stop.

Response 11: Please see Technical Specification Section 15103.3.01.B. Contractor shall provide thrust and support blocking for the tapping machinery and the existing water main prior to proceeding with installation of the line stopping equipment.

Contractor shall provide sufficient support as necessary for proposed equipment.

ATTACHMENT 2

DETAILS – SHEET CD-2 – ADDENDUM NO. 1



NTS

NTS

- NTS



NTS

NTS

License No: 91550

CD-2

VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

DETAILS

HOLTZ CONSULTING ENGINEERS, INC.

HCE 270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III

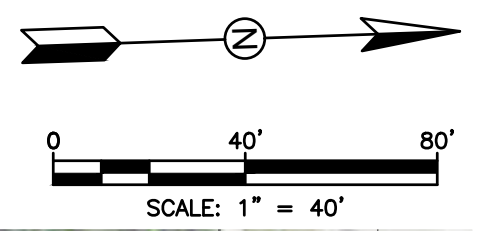
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ATTACHMENT 3

ELECTRICAL PLAN SHEET NOS. E-2, E-3, E-5, E-7, AND E-11 – ADDENDUM NO. 1

SPECIFIC ELECTRICAL NOTES

1 PROVIDE DIRECTIONAL BORING, REFER TO SPECIFICATIONS. TRENCH WHEREVER DIRECTIONAL BORING IS NOT FEASIBLE, RESTORE SURFACES TO ORIGINAL CONDITION.



BID SUBMITTAL
NOT FOR CONSTRUCTION

C&W engineering
ELECTRICAL CONSULTANTS
6903 VISTA PARKWAY NORTH, SUITE 10
WEST PALM BEACH, FL 33411
(561) 642-5333
REGISTRATION NUMBERS
C & W ENGINEERING, INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

REV	DATE	REVISIONS	BY
1	08/19/24	ADDENDUM 1	MAG

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 07-26-24
Scale: AS NOTED
Design By: JLR
Drawn By: AOD
Check By: MAG

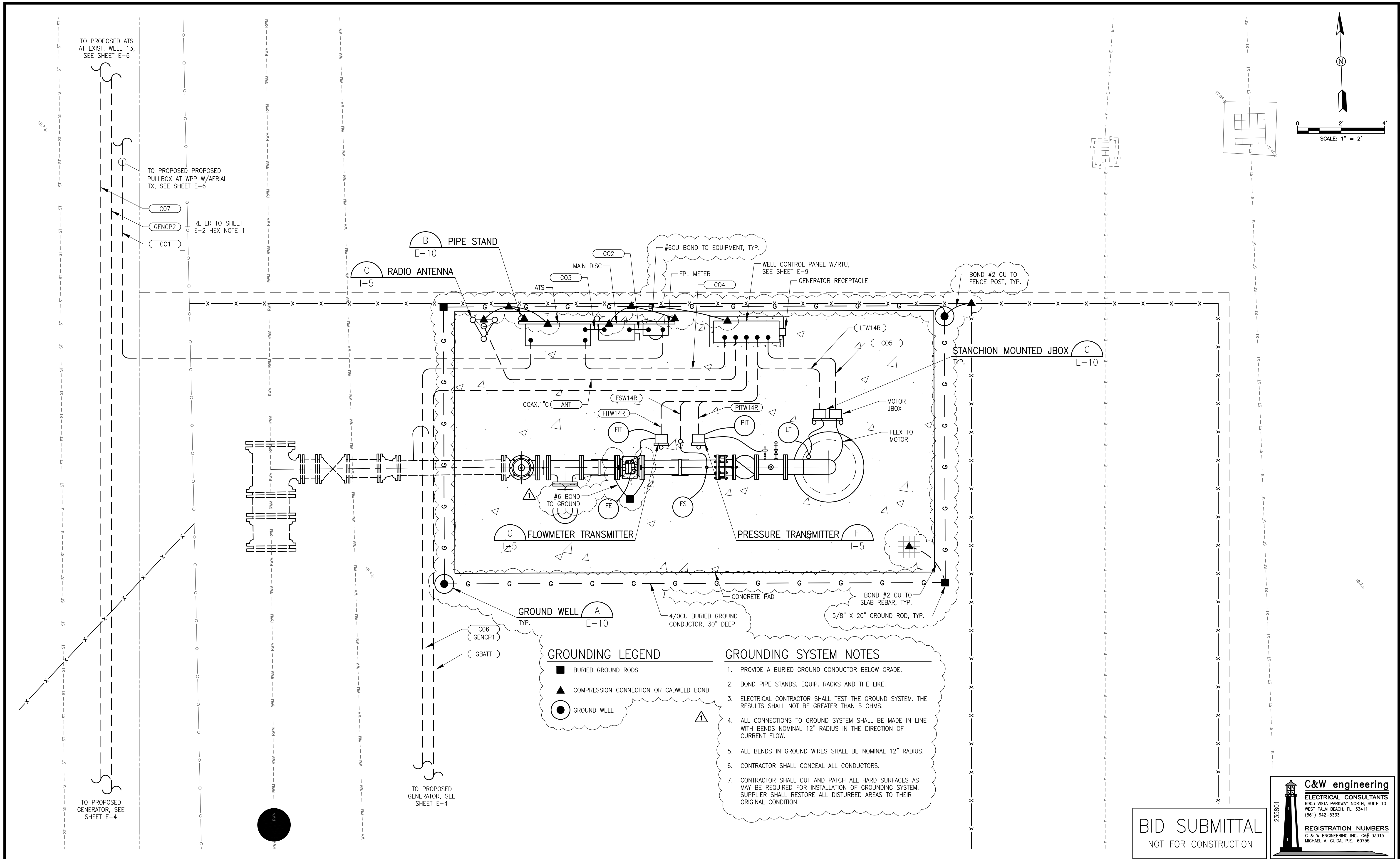
VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

OVERALL ELECTRICAL SITE PLAN

HOLTZ CONSULTING ENGINEERS, INC.
HCE 270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

MICHAEL A. GUIDA, P.E.
License No: 60755

E-2

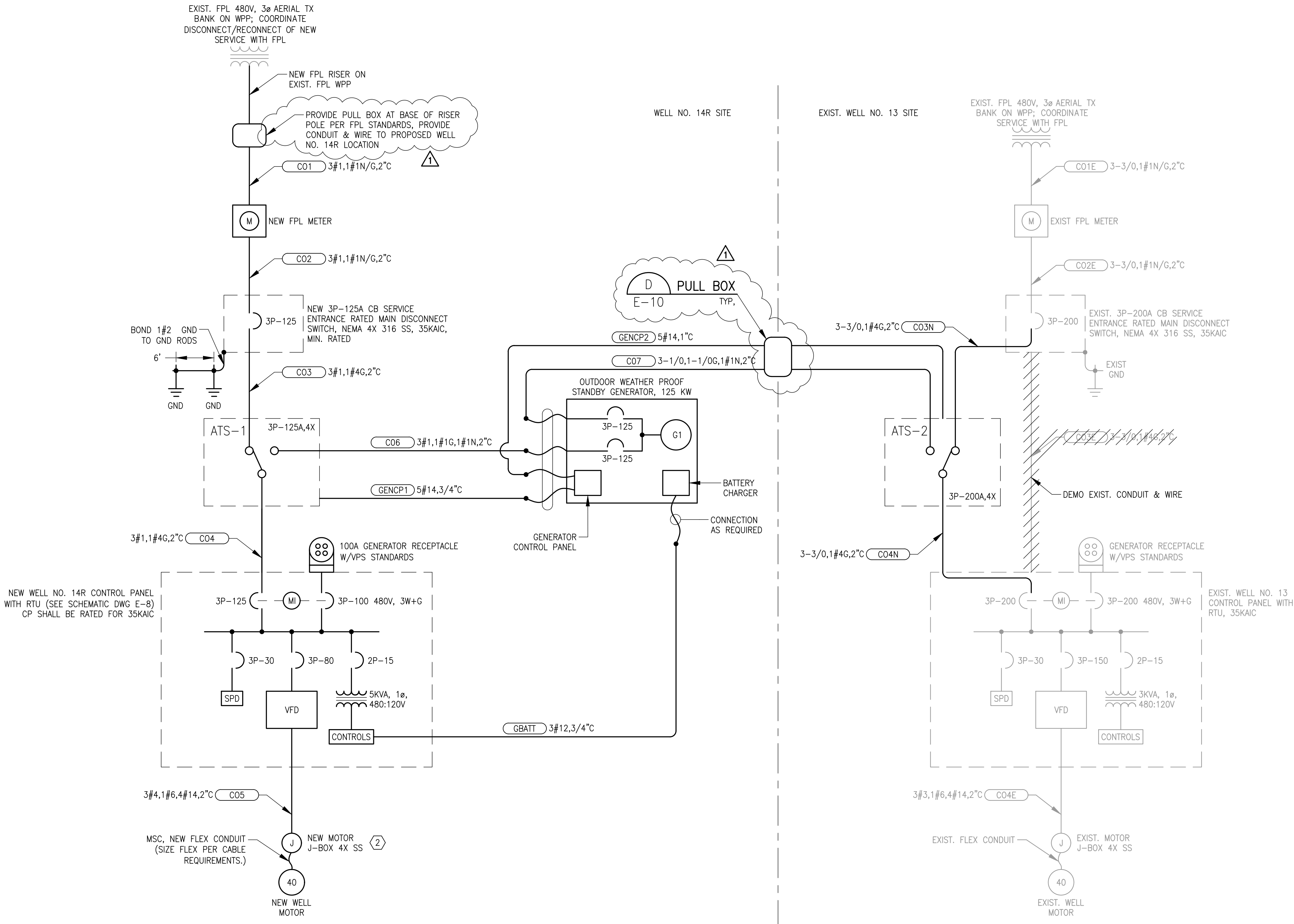


08/19/24	ADDENDUM 1	MAG	VERIFY SCALE BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING 0 1 ADJUST ALL SCALED DIMENSIONS ACCORDINGLY	Date: 07-26-24 Scale: AS NOTED Design By: JLR Drawn By: AOD Check By: MAG	VILLAGE OF PALM SPRINGS REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14 AND INSTALLATION OF STANDBY GENERATOR	WELL NO. 14R ELECTRICAL INSTALL PLAN	HOLTZ CONSULTING ENGINEERS, INC. 270 SOUTH CENTRAL BLVD., SUITE 207 JUPITER, FLORIDA 33458 PH. (561) 575-2005 CERTIFICATE OF AUTH. No. 26960	MICHAEL A. GUIDA, P.E. License No: 60755	E-5
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Drawing Name: \\10.1.10.26\CW Dropbox\JOBS\58-HOLTZ CONSULTING\235801 VPS WELL 14 REHAB AND GENSET W E FEEDER FOR NEARBY WELL\DRAWINGS\01 - Electrical Site Plans.dwg Layout Name: WELL 14R - Plotted by: Andres Demarchi - Date: 8/19/2024 - 8:46 AM - Holtz Consulting Engineers

480V 3Ø LOAD CALCULATION	
DESCRIPTION	AMPS
WELL PUMP (40HP) x 125%	65
CONTROLS	10
TOTAL	75
EXISTING 480V 3Ø SERVICE	130A

EXISTING SERVICE VOLTAGE DROP IS LESS THAN 2%
BRANCH CIRCUITS ARE LESS THAN 3% VOLTAGE DROP



WELLS NO. 14R & 13 480V, 3Ø, ELECTRICAL ONELINE DIAGRAM
NTS

Δ	08/19/24	ADDENDUM 1	MAG.
REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 07-26-24
Scale: AS NOTED
Design By: JLR
Drawn By: AOD
Check By: MAG

VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

ELECTRICAL ONELINE DIAGRAM

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

MICHAEL A. GUIDA, P.E.

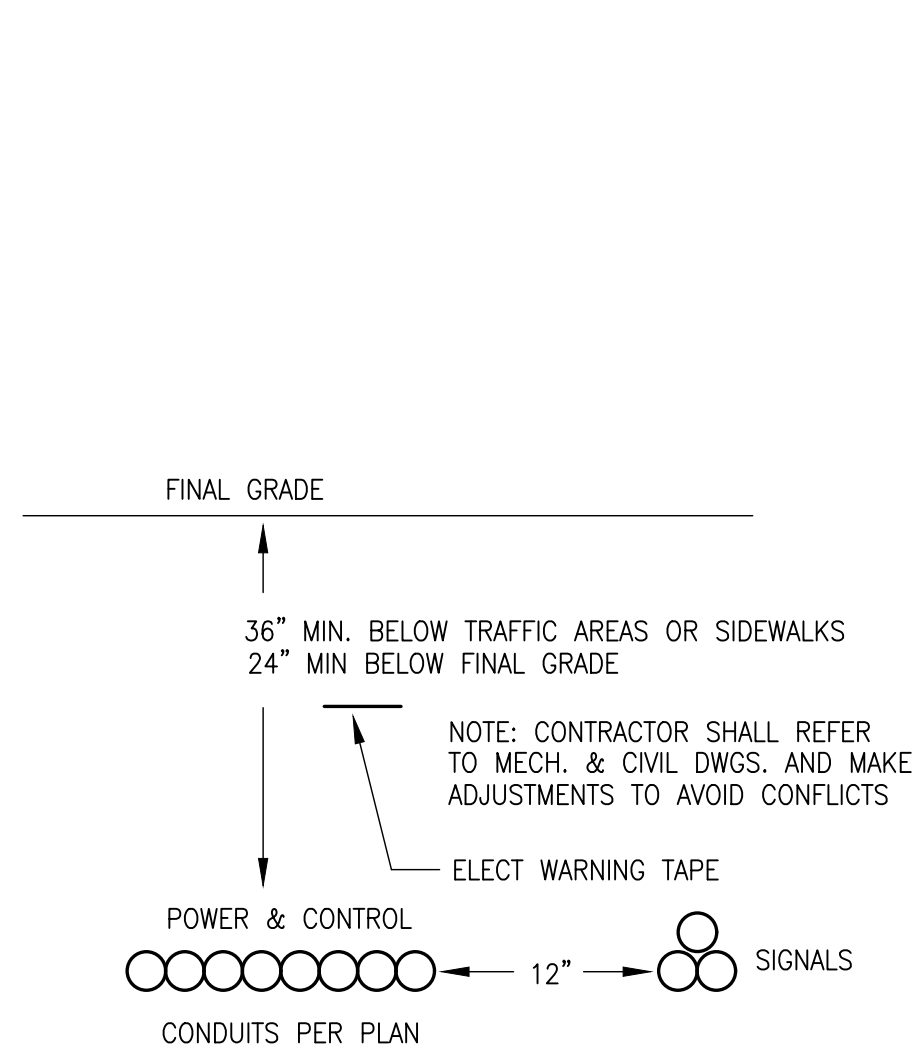
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E-7

235501

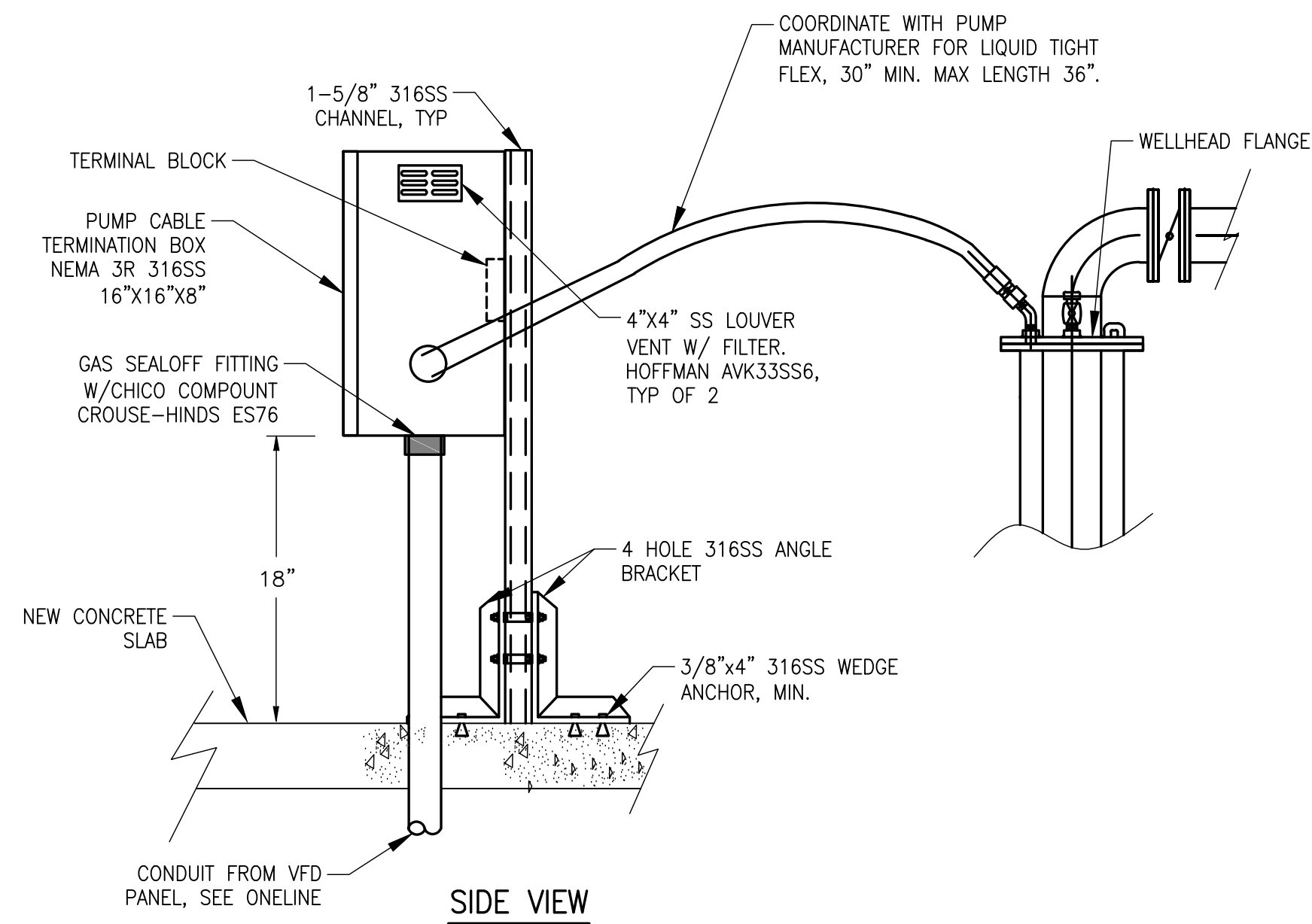
C&W engineering
ELECTRICAL CONSULTANTS
6903 VISTA PARKWAY NORTH, SUITE 10
WEST PALM BEACH, FL 33411
(561) 642-5335

REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755



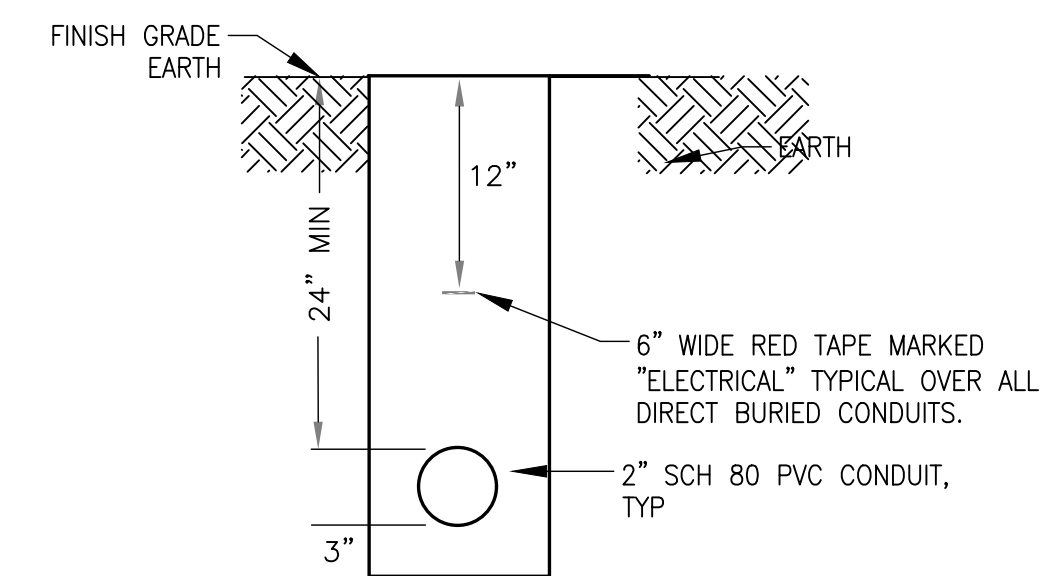
DIRECT BURIED CONDUIT

NTS



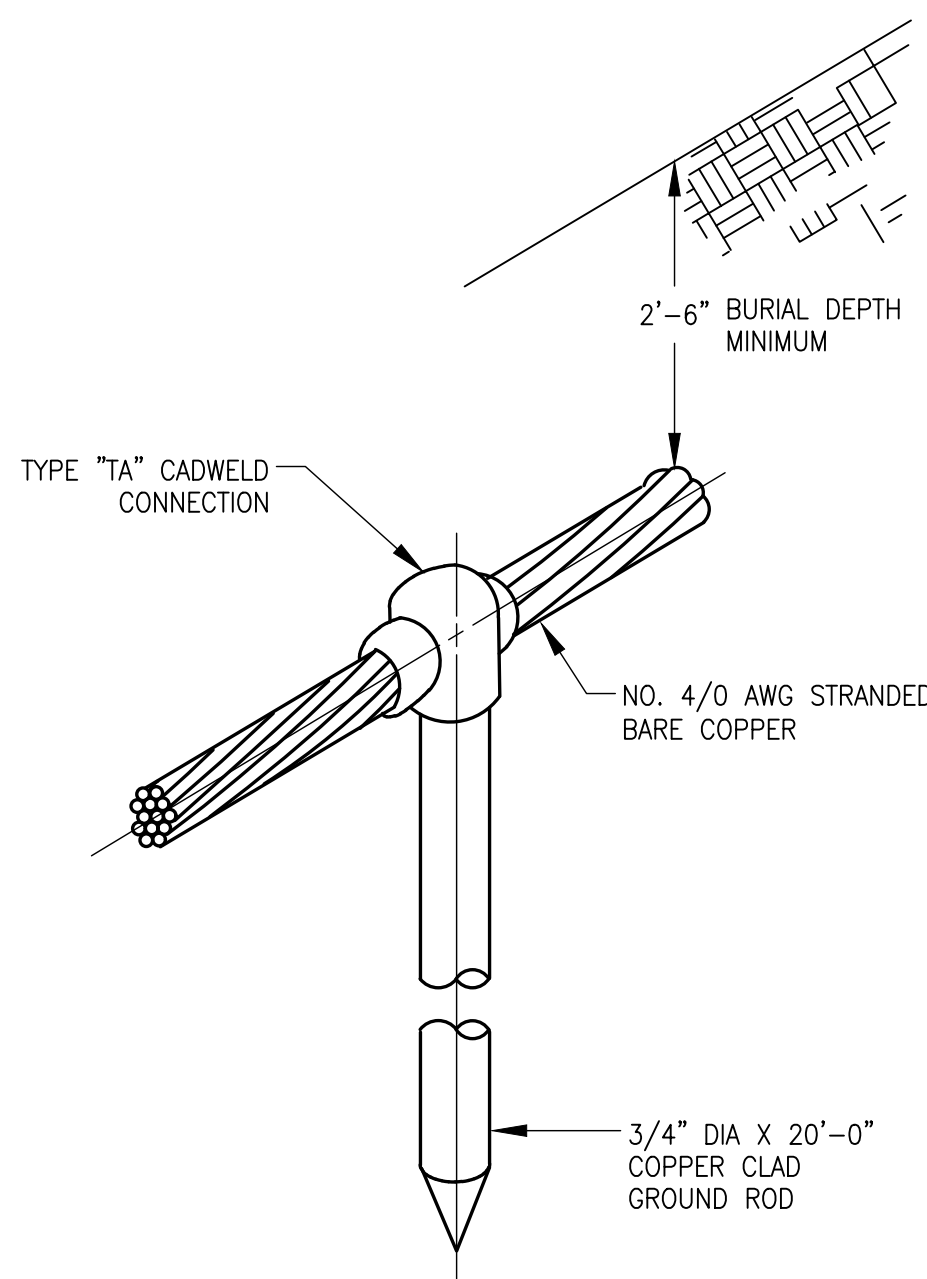
MOTOR JUNCTION BOX DETAIL

NTS



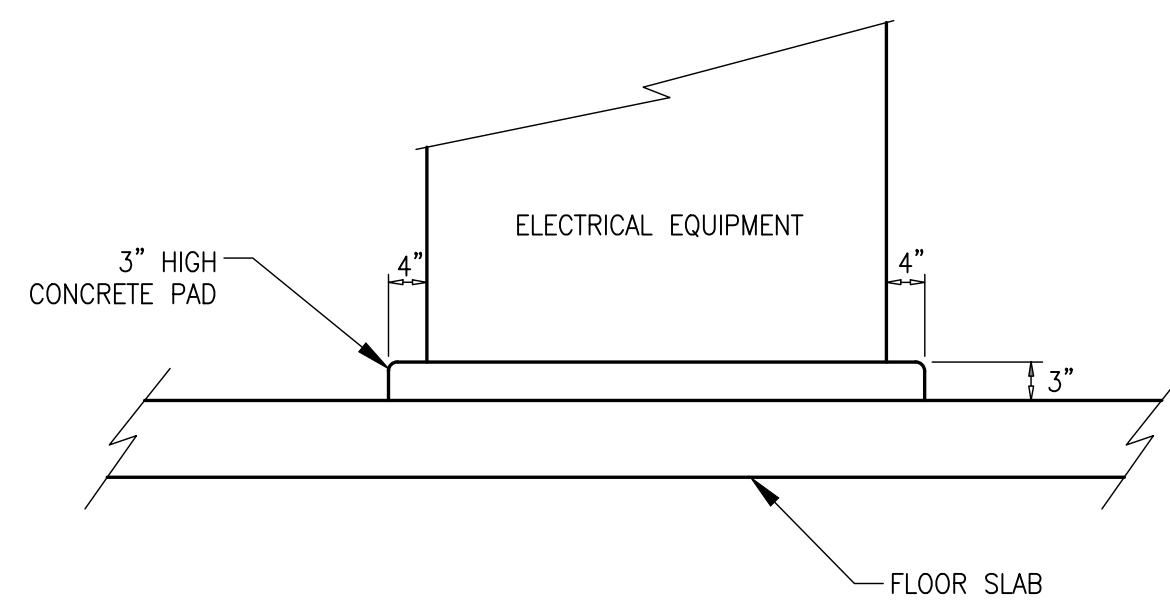
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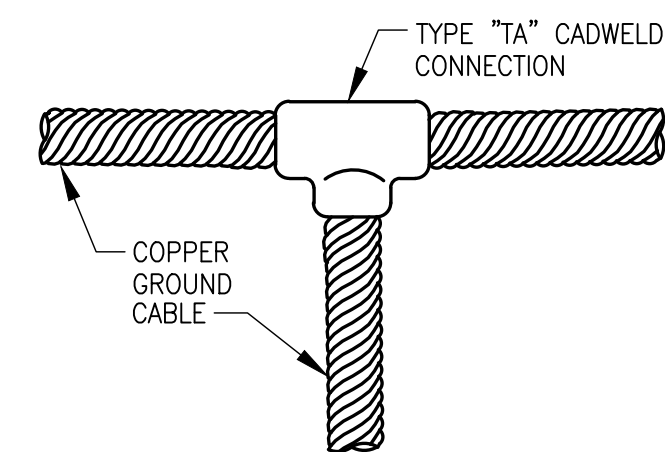
GROUND ROD DETAIL

NTS



EQUIPMENT HOUSE KEEPING PAD

NTS

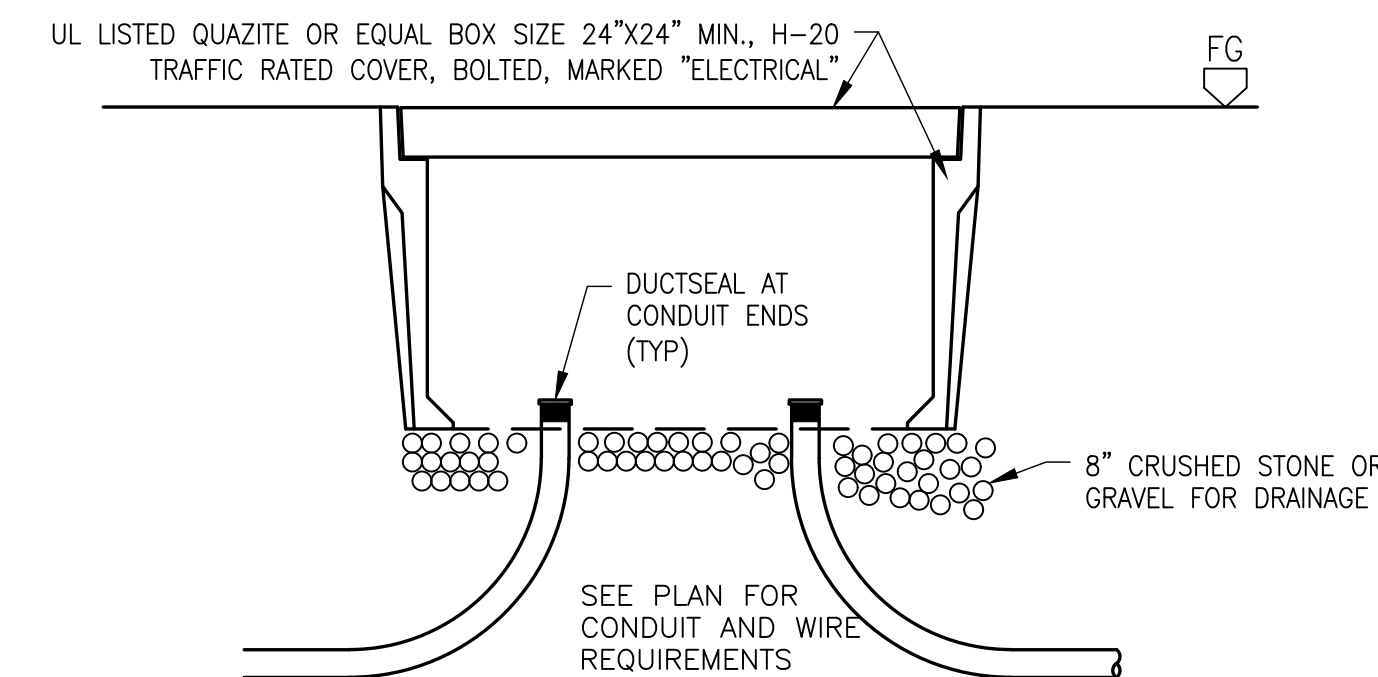


GROUND CABLE CONNECTION

NTS

NOTES:

- ENCLOSURES, BOXES AND COVERS ARE REQUIRED TO CONFORM TO ALL TEST PROVISIONS OF THE MOST CURRENT ANSI/SCTE 77 "SPECIFICATIONS FOR UNDERGROUND ENCLOSURE" FOR TIER 22 APPLICATIONS. ALL COVERS ARE REQUIRED TO HAVE THE TIER LEVEL RATING EMBOSSED ON THE SURFACE. IN NO ASSEMBLY CAN THE COVER DESIGN LOAD EXCEED THE DESIGN LOAD OF THE BOX. ALL COMPONENTS IN AN ASSEMBLY (BOX & COVER) ARE MANUFACTURED USING MATCHED SURFACE TOOLING.
- ENCLOSURE SHALL BE PG OR PC STYLE QUAZITE ENCLOSURES, FOR TIER 22 APPLICATIONS. SIZE AND DEPTH PER INSTALLATION REQUIREMENTS, NOTED ON DRAWINGS.
- COVERS SHALL BE BOLT DOWN, MARKED PER SERVICE (ELECTRICAL OR INSTRUMENTATION).
- PROVIDE GRADE EXTENSIONS AS APPLICABLE.
- ALL CONDUITS IN AND OUT OF PULL BOX SHALL HAVE PULL STRINGS.



PULL BOX DETAIL

NTS

08/19/24	ADDENDUM 1	MAG
REV	DATE	REVISIONS
BY		

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 07-26-24
Scale: AS NOTED
Design By: JLR
Drawn By: AOD
Check By: MAG

VILLAGE OF PALM SPRINGS REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14 AND INSTALLATION OF STANDBY GENERATOR

ELECTRICAL DETAILS SHEET 2

HCE HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

MICHAEL A. GUIDA, P.E.

License No: 60755

E-11

BID SUBMITTAL
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(561) 642-5333
REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

ATTACHMENT 4

SECTION 00410 – BID FORM – ADDENDUM NO. 1

BID FORM

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

VILLAGE OF PALM SPRINGS

C/O Kimberly Wynn, Village Clerk

226 Cypress Lane, Palm Springs, FL 33461

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 120 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.

Addendum, Date

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions, if any, at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

**Village of Palm Springs
Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator – Bid Form**

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
1	GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION	1	LS		
2	MOBILIZATION/DEMOBILIZATION	1	LS		
3	PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES	1	LS		
4	PLUG AND ABANDON EXISTING WELL AND WELLHEAD/SITEWORK DEMOLITION	1	LS		
5	DRILL NOMINAL 6-INCH DIAMETER PROFILE WELL TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON	1	LS		
6	FURNISH, INSTALL, AND GROUT 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT	40	FT		
7	DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD	80	FT		
8	PERFORM GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS	2	EA		
9	FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC CASING	120	FT		
10	CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC CASING IN PLACE	178	94 LB SKS		
11	DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD	80	FT		
12	FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN	80	FT		
13	FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING	120	FT		
14	FURNISH AND INSTALL WELL GRAVEL PACK	176	CF		
15	PERFORM AIRLIFT WELL DEVELOPMENT	50	HR		
16	OPTIONAL: WELL ACIDIZATION MOBILIZATION	1	LS		
17	OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl	1,800	GAL		
18	PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEANOUT OF BOREHOLE	50	HR		
19	PERFORM PUMP DEVELOPMENT	80	HR		
20	CONDUCT STEP-RATE PUMP TEST	8	HR		
21	COMPLETE WELL VIDEO LOGGING	1	LS		

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
22	WELL DISINFECTION AND SAMPLING	1	LS		
23	WATER QUALITY SAMPLING AND BACTERIOLOGICAL SAMPLING	1	LS		
24	FORMATION WATER DISPOSAL SYSTEM	1	LS		
25	FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN	1	LS		
26	FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING	1	LS		
27	SITework (INCLUDING PERIMETER FENCING AND RESTORATION)	1	LS		
28	FURNISH & INSTALL 20" LINE STOP	2	EA		
29	FURNISH AND INSTALL UNDERGROUND LP STORAGE TANKS	1	LS		
30	FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT	1	LS		
31	ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIP.)	1	LS		
32	<u>ALTERNATE BID ITEM – ALTERNATE ELECTRICAL CONSTRUCTION AS DEFINED IN SECTION 16000</u>	1	LS		
33	OWNER'S ALLOWANCE	1	CI	\$50,000	\$50,000

Total of All Unit Price Bid Item Nos. 1 thru 31 and Bid Item No. 33 (Excluding Alternate Bid Item No. 32)	\$
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Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

BIDDER shall note that this project includes an alternate bid item, Item No. 32 for which BIDDER shall provide a lump sum price to perform work described in the Technical Specifications if OWNER elects to proceed with construction/work as described therein. Identification of the Low Bidder shall be based upon the sum total of Bid Item Nos. 1 through ~~31~~ and Bid Item No. 33, excluding Bid Item No. 32. If OWNER elects to ~~proceed with~~ **forego** construction/work as defined under Alternate Bid Item No. 32, Bid Item No. ~~32~~ **31** shall not be required and shall be removed from the Contract via formal change order. See *Section 01200 – Measurement and Payment* of the Technical Specifications for additional details.

Total of Lump Sum and Unit Price Bids = Total Bid Price \$ _____

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete within **390** calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **420** calendar days after the date when the Contract Times commence to run.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. List of Proposed Suppliers;
 - D. List of Project References;
 - E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - F. Contractor's License No.: [REDACTED] **[or]** Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
 - G. Required Bidder Qualification Statement with supporting data;

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:

[Signature]

[Printed name]

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature]

[Printed name]

Title:

Submittal Date:

Address for giving notices:

Telephone Number:

Fax Number:

Contact Name and e-mail address:

Bidder's License No.:

(where applicable)

NOTE TO USER: *Use in those states or other jurisdictions where applicable or required.*

ATTACHMENT 5

SECTION 00520 – AGREEMENT – ADDENDUM NO. 1

THIS AGREEMENT is by and between Village of Palm Springs ("Owner") and
("Contractor").

requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$500.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500.00 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 Special Damages

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work other than Unit Price Work, a lump sum of: N/A.

All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.

- B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

Unit Price Work					
Item No.	Description	Unit	Est. Quantity	Unit Price	Extended Price
1	GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION	LS	1		
2	MOBILIZATION/DEMOBILIZATION	LS	1		
3	PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES	LS	1		
4	PLUG AND ABANDON EXISTING WELL AND WELLHEAD/SITWORK DEMOLITION	LS	1		
5	DRILL NOMINAL 6-INCH DIAMETER PROFILE WELL TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON	LS	1		
6	FURNISH, INSTALL, AND GROUT IN PLACE 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT	FT	40		
7	DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD	FT	80		
8	PERFORM GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS	EA	2		
9	FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC CASING	FT	120		

Unit Price Work					
Item No.	Description	Unit	Est. Quantity	Unit Price	Extended Price
10	CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC CASING IN PLACE	94 LB SKS	178		
11	DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD	FT	80		
12	FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN	FT	80		
13	FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING	FT	120		
14	FURNISH AND INSTALL WELL GRAVEL PACK	CF	176		
15	PERFORM AIRLIFT WELL DEVELOPMENT	HR	50		
16	OPTIONAL: WELL ACIDIZATION MOBILIZATION	LS	1		
17	OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl	GAL	1,800		
18	PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEANOUT OF BOREHOLE	HR	50		
19	PERFORM PUMP DEVELOPMENT	HR	80		
20	CONDUCT STEP-RATE PUMP TEST	HR	8		
21	COMPLETE WELL VIDEO LOGGING	LS	1		
22	WELL DISINFECTION AND SAMPLING	LS	1		
23	WATER QUALITY SAMPLING AND BACTERIOLOGICAL SAMPLING	LS	1		
24	FORMATION WATER DISPOSAL SYSTEM	LS	1		
25	FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN	LS	1		
26	FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING	LS	1		
27	SITework (INCLUDING PERIMETER FENCING AND RESTORATION)	LS	1		
28	FURNISH AND INSTALL 20" LINE STOP	EA	2		
29	FURNISH AND INSTALL UNDERGROUND LP STORAGE TANKS	LS	1		
30	FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT	1	LS		
31	ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIP.)	1	LS		
32	<u>ALTERNATE BID ITEM – ALTERNATE ELECTRICAL CONSTRUCTION AS DEFINED IN SECTION 16000</u>	1	LS		
33	OWNER'S ALLOWANCE	1	CI	\$50,000	\$50,000
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)					\$

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

If OWNER elects to proceed with forego construction/work as defined under Alternate Bid Item No. 32, Bid Item No. ~~32~~ 31 shall not be required and shall be removed from the

Contract via formal change order. See *Section 01200 – Measurement and Payment* of the Technical Specifications for additional details.

- C. Total of All Lump Sum Amount and Unit Price Work Bid Item Nos. 1 thru ~~31~~ and Bid Item No. 33 (~~Excluding Alternate Bid Item No. 32~~ and subject to final Unit Price adjustment) \$ [REDACTED].
- D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Payment to the Contractor shall be made pursuant Florida's Prompt Payment Act (for construction services), section 218.735, Florida Statutes (2024), except as provided herein. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer on or about the 20th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

- 1. Progress payments will be made in an amount equal to the percentages indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with the General Conditions, less liquidated damages, if any.

95% of Work completed.

95% of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to Owner as provided in the General Conditions).

Upon 50% of the Work being completed, the Contractor may request from Engineer that Owner release a portion of the retainage not to exceed 50% of the then current total retainage amount being withheld.

Within 20 business days after the Owner's delivery of the finalized punch-list to the Contractor, the Owner will pay the Contractor the remaining Contract balance that includes all retainage previously withheld by the Owner less an amount equal to 150% of the estimated cost to complete the items on the punch-list. Once all items on the punch-list are completed as confirmed by the Engineer, the Contractor may request payment for the 150% amount withheld for completion of the punch-list.

Notwithstanding the foregoing, the City shall not be required to pay or release any amounts that are subject of a good faith dispute made in writing pursuant to the Contract Documents or the subject of a claim brought pursuant to section 255.05, Florida Statutes.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions (including all punch-list items and settlement of all claims, including liquidated damages) and final inspection by the appropriate agency with jurisdiction over the project (if other than the Owner), the Contractor shall submit a “final invoice” to the Owner. In order for both parties to close their books and records, the Contractor will clearly state “FINAL” on the Contractor’s final invoice. This certifies that all Work has been properly completed and all charges have been invoiced to the Owner. Since this account will thereupon be closed, any and other further charges if not properly included in this final invoice are waived by the Contractor. If the Contractor’s Final Invoice is approved as set forth above, the Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06. Notwithstanding the foregoing, the City shall not be required to pay or release any amounts that are subject of a good faith dispute made in writing pursuant to the Contract Documents or the subject of a claim brought pursuant to section 255.05, Florida Statutes.

- 6.04 *Punch-List Process.* In accordance with section 218.735(7), Florida Statutes (2024) and section 15.03 of the General Conditions, prior to declaring the Work substantially complete the Engineer, Owner, and Contractor shall inspect the Work and the Engineer shall create a proposed punch-list of items that must be completed by the Contractor before the Contractor is authorized to submit for final payment. The proposed punch-list must include all items of Work which remain to be completed and the estimated cost to complete each Work item on the list. Upon receipt of the Engineer’s proposed punch-list, the Contractor and Owner will have seven (7) days to review, make modifications, or agree to the proposed punch-list and estimated costs. The Engineer will resolve any disputes in the punch-list and deliver the final punch-list to the Owner and Contractor along with the final certificate of substantial completion. **Once the punch-list is finalized and delivered to the Owner and Contractor, the Contractor shall have thirty (30) calendar days to complete all Work on the punch-list.** The failure of either party to include any corrective work or pending items on the finalized punch-list does not alter the responsibility of the Contractor to complete all Work and the Project. The Engineer’s proposed punch-list, modifications thereto and finalized punch-list may be by informal written notice (e.g., email, fax, or hand-delivery); however, proof of delivery shall be kept by the person providing the informal written notice to the other.

ARTICLE 7 – INTEREST

- 7.01 All amounts not paid when due shall bear interest at the rate set forth in section 218.735, Florida Statutes (as amended from time to time).

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 16, inclusive).
 - 2. Performance bond (pages 1 to 3, inclusive).
 - 3. Payment bond (pages 1 to 3, inclusive).
 - 4. Other bonds.
 - a. (pages to , inclusive).
 - b. (pages to , inclusive).
 - c. (pages to , inclusive).
 - 5. General Conditions (pages 1 to 65, inclusive).
 - 6. Supplementary Conditions (pages 1 to 10, inclusive).

7. Specifications as listed in the table of contents of the Project Manual.
8. Drawings (not attached but incorporated by reference) consisting of 24 sheets with each sheet bearing the following general title: Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator [or] the Drawings listed on the attached sheet index.
9. Addenda (numbers [] to [], inclusive).
10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages [] to [], inclusive).
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.
- E. *Governing Order of Contract Documents* - The Contract Documents include various divisions, sections and conditions which are essential parts for the work to be provided by the Contractor. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, the following precedence will govern the interpretation of the Contract Documents prior to award of the Contract:
 1. Agreement
 2. Addenda to Invitation to Bid (solicitation)
 3. Instructions to Bidders
 4. Special Conditions
 5. Supplementary Conditions
 6. General Conditions
 7. Technical Specifications
 8. Details
 9. City Standard Details
 10. Drawings/Plans
 11. Bid Form

After award, Work Change Directives, Change Orders, amendments and revisions to plans and specifications will take precedence over any of the above. In case of discrepancy among technical specifications, drawings and plans, the most restrictive shall govern. Detailed plans shall have precedence over general plans. In the event that any conflicts cannot be resolved by reference to this Governing Order of Contract Documents provision, then City shall resolve the conflict in any manner which is

acceptable to City and which comports with the overall intent of the Contract Documents.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract Documents, no assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract Documents. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Indemnity*

- A. The parties recognize that the CONTRACTOR is an independent contractor. The CONTRACTOR agrees to assume liability for and indemnify, hold harmless, and defend the Owner, its council members, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONTRACTOR, its agents, officers, contractors, subcontractors, employees, or anyone else utilized by the CONTRACTOR in the performance of the Contract Documents. The CONTRACTOR's liability hereunder shall include all attorney's fees and costs incurred by the Owner in the enforcement of this indemnification provision. This includes claims made by the employees of the CONTRACTOR against the Owner and the CONTRACTOR hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. The obligations contained in this provision shall survive termination of the Contract Documents and shall not be limited by the amount of any insurance required to be obtained or maintained under the Contract Documents.
- B. Subject to the limitations set forth in this Section, CONTRACTOR shall assume control of the defense of any claim asserted by a third party against the Owner and, in connection with such defense, shall appoint lead counsel, in each case at the CONTRACTOR's expense. The Owner shall have the right, at its option, to participate in the defense of any third party claim, without relieving CONTRACTOR of any of its obligations hereunder. If the CONTRACTOR assumes control of the defense of any third party claim in accordance with this paragraph, the CONTRACTOR shall obtain the prior written consent of the Owner before entering into any settlement of such claim. Notwithstanding anything to the contrary in this Section, the CONTRACTOR shall not assume or maintain control of the defense of any third party claim, but shall pay the fees of counsel retained by the Owner and all expenses, including experts' fees, if (i) an adverse determination with respect to the third party claim would, in the good faith judgment of the Owner, be detrimental in any material respect to the Owner's reputation; (ii) the third party claim seeks an injunction or equitable relief against the Owner; or (iii) the CONTRACTOR has failed or is failing to prosecute or defend vigorously the third party claim. Each party shall cooperate, and cause its agents to cooperate, in the defense or prosecution of any third party claim and shall furnish or cause to be furnished such records and information, and attend such conferences, discovery proceedings, hearings, trials, or appeals, as may be reasonably requested in connection therewith.
- C. It is the specific intent of the parties hereto that the foregoing indemnification complies with Section 725.06, Florida Statutes, as amended. CONTRACTOR expressly agrees that it will not claim, and waives any claim, that this indemnification violates Section 725.06, Florida Statutes. Nothing contained in the foregoing indemnification shall be construed as a waiver of any immunity or limitation of liability the Owner may have under the doctrine of sovereign immunity or Section 768.28, Florida Statutes.

10.07 *Governing Law and Remedies*

- A. The validity of this Agreement and of any of its terms or provisions, as well as the rights and duties of the parties hereunder, shall be governed by the laws of the State of Florida and venue for any and all disputes related to or arising from this Agreement shall be exclusively in Palm Beach County, Florida.

- B. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

10.08 *Office of the Inspector General*

- A. Palm Beach County has established the Office of the Inspector General, which is authorized and empowered to review past, present, and proposed County programs, contracts, transactions, accounts and records. The Inspector General (IG) has the power to subpoena witnesses, administer oaths, require the production of records, and monitor existing projects and programs. The Inspector General may, on a random basis, perform audits on all of the Owner's contracts.

10.09 *Scrutinized Companies*

- A. Contractor certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List and are not engaged in the boycott of Israel. Pursuant to section 287.135, Florida Statutes, the Owner may immediately terminate this Agreement at its sole option if the Contractor or any of its subcontractors are found to have submitted a false certification; or if the Contractor or any of its subcontractors, are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of the Contract Documents.
- B. The Contractor agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under the Contract Documents. The Contractor agrees that the certifications in this section shall be effective and relied upon by the Owner for the term of the Contract Documents, including any and all renewals. The Contractor agrees that if it or any of its subcontractors' status changes in regards to any certification herein, the Contractor shall immediately notify the Owner of the same. As provided in Subsection 287.135(8), Florida Statutes, if federal law ceases to authorize the above-stated contracting prohibitions then they shall become inoperative.

10.10 *Public Records*

- A. The CONTRACTOR shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the Owner as provided under section 119.011(2), Florida Statutes, specifically agrees to:
 - 1. Keep and maintain public records required by the Owner to perform the service.
 - 2. Upon request from the Owner's custodian of public records or designee, provide the Owner with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 - 3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract Documents and following completion of the Contract Documents if the Contractor does not transfer the records to the Owner.
 - 4. Upon completion of the Contract Documents, transfer, at no cost, to the Owner all public records in possession of the Contractor or keep and maintain public records required by the Owner to perform the service. If the Contractor transfers all public records to the Owner upon completion of the Contract Documents, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt

from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Owner, upon request from the Owner's custodian of public records or designee, in a format that is compatible with the information technology systems of the Owner.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THE CONTRACT DOCUMENTS, CONTACT THE CUSTODIAN OF PUBLIC RECORDS OR DESIGNEE AT 561-584-8200 ext. 8430, kwynn@vpsfl.org, OR BY MAIL AT VILLAGE OF PALM SPRINGS, 226 CYPRESS LANE, PALM SPRINGS, FL 33461.

10.11 *Insurance*

A. The limits of liability for insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Law and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

a. State	Statutory
b. Applicable Federal	Statutory
c. Employer Liability:	
Bodily injury, each accident	\$1,000,000
Bodily injury by disease, each employee	\$500,000
Bodily injury/disease aggregate	\$1,000,000
d. Foreign voluntary worker compensation	Statutory

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

a. General Aggregate	\$2,000,000
b. Products – Completed Operations Aggregate	\$2,000,000
c. Personal and Advertising Injury	\$1,000,000
d. Each Occurrence/Per Claim (Bodily Injury and Property Damage)	\$1,000,000

3. Automobile Liability under paragraph 6.03.D of the General Conditions:

a. Bodily Injury:	
Each Person	\$500,000
Each Accident	\$1,000,000
b. Property Damage:	
Each Incident	\$1,000,000

4. Umbrella of Excess Liability under paragraph 6.03.E of the General Conditions:

a. Excess or Umbrella Liability	
1) General Aggregate	\$5,000,000

- 2) Each Occurrence/Per Claim \$1,000,000
- 5. Contractor's Pollution Liability under paragraph 6.03.F of the General Conditions:
 - a. Contractor's Pollution Liability
 - 1) General Aggregate \$2,000,000
 - 2) Each Occurrence/Per Claim \$1,000,000
- 6. Additional Insureds include the respective officers, partners, directors, employees, agents, consultants, and subconsultants of the following firms and municipal government(s):
 - a. Village of Palm Springs

10.12 *Public Construction Bond*

- A. If the total contract price exceeds \$200,000 in total construction cost, the CONTRACTOR must provide the Owner with a public construction bond in accordance with section 255.05, Florida Statutes. Said bond must be recorded in the Official Records in and for Palm Beach County and a certified copy of recorded bond must be provided to the Owner prior to the CONTRACTOR providing any services under the Contract Documents. The Owner reserves the right to request a bond for any work which is less than \$200,000. The cost of the bond shall be a direct pass-through cost to the Owner without any mark-up by the CONTRACTOR.
- B. The public construction bond shall be on forms attached hereto as **Forms C-610 and C-615 "Performance" and "Payment" Bonds** or substantially similar as approved by the Owner. The bond shall be in an amount not less than the total contract price and shall incorporate by reference the terms of the Contract Documents in their entirety.
- C. To be acceptable to the Owner, a Surety Company shall comply with the following provisions:
 - a. The Surety Company shall have a currently valid Certificate of Authority, issued by the State of Florida Department of Insurance, authorizing it to write surety bonds in the State of Florida.
 - b. The Surety Company shall have a currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.
 - c. The Surety Company shall be in full compliance with the provisions of the Florida Insurance Code.
 - d. The Surety Company shall have at least twice the minimum surplus and capital required by the Florida Insurance Code at the time the contract is approved.
 - e. The Surety Company shall have at least the ratings of A-/Class V in the latest issue of Best's Key Rating Guide.
 - f. The Surety Company shall not expose itself to any loss on any one risk in an amount exceeding ten (10) percent of its surplus to policyholders, provided:
 - 1) Any risk or portion of any risk being reinsured shall be deducted in determining the limitation of the risk as prescribed in this section. These minimum requirements shall apply to the reinsuring carrier providing authorization or approval by the State of Florida, Department of Insurance to do business in this state have been met.

- 2) In the case of the surety insurance company, in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any security deposited, pledged or held subject to the consent of the surety and for the protection of the surety shall be deducted.

10.13 *Audit by Owner*

- A. The CONTRACTOR shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the Services for at least three (3) years after completion of the Contract Documents. The CONTRACTOR shall permit the Owner, or any authorized representatives of the Owner, at all reasonable times, access to and the right to examine all records, books, papers or documents related to the CONTRACTOR's performance under the Contract Documents including, but not limited to, expenses for sub-contractors, agents or assistants, direct and indirect charges for work performed and detailed documentation for all such work performed or to be performed under the Contract Documents.

10.14 *Copies of Data/Documents*

- A. Copies or original documents prepared by the CONTRACTOR in relation to work associated with the Contract Documents shall be provided to the Owner. Data collected, stored, and/or provided shall be in a form acceptable to the Owner and agreed upon by the Owner.

10.15 *Ownership*

- A. Each and every report, draft, work product, map, record, and other document reproduced, prepared, or caused to be prepared by the CONTRACTOR pursuant to or in connection with this Agreement shall be the exclusive property of the Owner.

10.16 *Limitations of Liability*

- A. Under no circumstances shall either party be liable to the other for any consequential, incidental, special, punitive, or any other form of indirect or non-compensatory damages.

10.17 *Enforcement Costs*

- A. All parties shall be responsible for their own attorneys' fees, court costs and expenses if any legal action or other proceeding is brought for any dispute, disagreement, or issue of construction or interpretation arising hereunder whether relating to the Contract Documents' execution, validity, the obligations provided therein, or performance of the Contract Documents, or because of an alleged breach, default or misrepresentation in connection with any provisions of this Contract Documents.

10.18 *Copyrights and/or Patent Rights*

- A. CONTRACTOR warrants that there has been no violation of copyrights and/or patent rights in the manufacturing, producing or selling of the goods, shipped or ordered, as a result of this Agreement and the CONTRACTOR agrees to hold the Owner harmless from any and all liability, loss, or expense occasioned by any such violation.

10.19 *Protection of Property*

- A. The CONTRACTOR shall at all times guard against damage or loss to the property of the Owner or of other vendors or contractors and shall be held responsible for replacing or repairing any such loss or damage. The Owner may withhold payment or make such deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the successful CONTRACTOR or its agents. The CONTRACTOR shall be responsible to safeguard all of their property such as tools and

equipment while on site. The Owner will not be held responsible for any loss of CONTRACTOR property due to theft or vandalism.

10.20 *Damage to Persons or Property*

- A. The responsibility for all damage to person or property arising out of or on account of Scope of Work done under the Contract Documents shall rest upon the CONTRACTOR.

10.21 *Discrimination*

- A. The CONTRACTOR warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, political affiliation, marital status, handicap, or sexual orientation. Further, CONTRACTOR shall not discriminate or permit discrimination against any employee or an applicant for employment on the basis of race, color, sex, religion, political affiliation, natural origin, ancestry, marital status, sexual orientation or handicap.

10.22 *Construction Defects*

- A. PURSUANT TO SECTION 558.005, FLORIDA STATUTES, ANY CLAIMS FOR CONSTRUCTION DEFECTS ARE NOT SUBJECT TO THE NOTICE AND CURE PROVISIONS OF CHAPTER 558, FLORIDA STATUTES.

10.23 *Public Entity Crimes*

- A. Contractor acknowledges and agrees that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier or sub-contractor under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list. The Contractor will advise the Owner immediately if it becomes aware of any violation of this statute.

10.24 *E-Verify*

- A. Pursuant to Section 448.095(2), Florida Statutes, beginning on January 1, 2021, the CONTRACTOR shall:
 - 1. Register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all Subcontractors (providing services or receiving funding under the Contract Documents) to register with and use the E-Verify system to verify the work authorization status of all the Subcontractors' newly hired employees;
 - 2. Secure an affidavit from all Subcontractors (providing services or receiving funding under this Agreement) stating that the Subcontractor does not employ, contract with, or subcontract with an "unauthorized alien" as defined in Section 448.095(1)(k), Florida Statutes;
 - 3. Maintain copies of all Subcontractor affidavits for the duration of the Contract Documents and provide the same to the Owner upon request;
 - 4. Comply fully, and ensure all of its Subcontractors comply fully, with Section 448.095, Florida Statutes;

5. Be aware that a violation of Section 448.09, Florida Statutes (Unauthorized aliens; employment prohibited) shall be grounds for termination of the Contract Documents; and,
6. Be aware that if the Owner terminates the Contract Documents under Section 448.095(2)(c), Florida Statutes, the Contractor may not be awarded a contract for at least 1 year after the date on which the Contract Documents are terminated and will be liable for any additional costs incurred by the Owner as a result of the termination of the Contract Documents.

10.25 *Waiver.* Failure of either party to enforce or exercise any right(s) under the Contract Documents shall not be deemed a waiver of either party's right to enforce said right(s) at any time thereafter.

10.26 *Waiver of jury trial.* TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THE CONTRACT DOCUMENTS.

10.27 *Independent Contractor.* The Contractor is, and shall be, in the performance of all Work under the Contract Documents, an Independent Contractor, and not an employee, agent, or servant of the Owner. All persons engaged in any of the Work performed pursuant to the Contract Documents shall at all times and in all places be subject to the Contractor's sole direction, supervision and control.

10.28 *Preparation.* The Contract Documents shall not be construed more strongly against either party regardless of who was more responsible for its preparation.

10.29 *Binding authority.* Contractor's representative below has full power, authority and legal right to execute and deliver these Contract Documents and perform all of its obligations under the Contract Documents. By signing the Contract Documents, the representative hereby represents to the Owner that he/she has the authority and full legal power to execute the Contract Documents and any and all documents necessary to effectuate and implement the terms of the Contract Documents on behalf of the party for whom he or she is signing and to bind and obligate such party with respect to all provisions contained in the Contract Documents.

10.30 *Assignment of warranties.* Contractor shall assign to Owner all warranties extended to Contractor by material suppliers. If an assignment of warranty requires the material supplier to consent to same, then Contractor shall secure the material supplier's consent to assign said warranties to Owner.

10.31 *Termination for failure to provide Public Construction Bond.* If a Public Construction Bond is required under the Construction Documents and the Contractor fails to provide the fully executed Public Construction Bond, including a certified copy of the Public Construction Bond as recorded in the Official Records for Palm Beach County, within fifteen (15) calendar days after the Contractor's and Owner's execution of the Contract Documents, the Owner may immediately terminate the Contract Documents upon written notice to the Contractor and the Owner shall have no further obligation to the Contractor under the Contract. In the event of such termination, the Contractor shall also forfeit its bid security to the Owner.

10.32 *Counterparts.* The Contract Documents may be executed in counterparts, each of which shall be an original, but all of which shall constitute one and the same document. Each of the parties shall sign a sufficient number of counterparts, so that each party will receive a fully executed original of the Contract Documents. The Contract Documents may be executed electronically and such electronic signature shall be treated as an original signature of the party executing the Contract Documents electronically.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on (which is the Effective Date of the Contract).

VILLAGE:

CONTRACTOR:

By: _____

By: _____

Title: Mayor

Title: _____

(Seal)

Attest: _____

Attest: _____

Title: Village Clerk

Title: Notary Public

Approved
as to
Form: _____

Title: Village Attorney

Address for giving notices:

226 Cypress Lane

Palm Springs FL, 33461

Address for giving notices:

License No.: _____
(where applicable)

ATTACHMENT 6

SECTION 01200 – MEASUREMENT AND PAYMENT – ADDENDUM NO. 1

SECTION 01200

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The Unit prices stated in the Contract shall be considered payment in full for the completion of all work. Payment shall be made under each item only for work as it is not specifically included under other items.
- B. The CONTRACTOR shall furnish all labor, equipment, and materials necessary to replace one (1) existing Surficial aquifer production well, Well No. 14, for the Village of Palm Springs (OWNER) and for furnishing and installing emergency generator facilities for supplying power to proposed Well No. 14R and exist. Well No. 13.
- C. The CONTRACTOR shall furnish all labor, equipment, and materials necessary to perform testing / pressure grouting of existing sanitary sewer piping.

1.02 PERFORMANCE

- A. Section generally defines unless otherwise indicated, the following:
 - 1. Payment item descriptions.
 - 2. Payment application descriptions.
- B. The cost of temporary facilities, bonds, insurance, attending project meetings, administration, record drawings, policing, and other general duties shall be considered incidental to all items.
- C. The OWNER may direct the CONTRACTOR to install certain portions of the work in advance of other portions without extra payment to the CONTRACTOR.
- D. Measurement methods delineated in the individual Specification sections are intended to complement the criteria of this Section. In the event of conflict, the requirements of the individual Specification section will govern.
- E. The CONTRACTOR's attention is called to the fact that the quotations for the various items of Work are intended to establish a total price for completing the Work in its entirety. Should the CONTRACTOR feel that the cost of any item of Work has not been established by the Schedule of Values or Measure and Payment, CONTRACTOR shall include the cost for that Work in the other Bid Items so that CONTRACTOR's proposal for the project does reflect CONTRACTOR's total price for completing the Work in its entirety.

1.03 RELATED SECTIONS

- A. Section 00111 – Advertisement
- B. Section 00200 – Instructions to Bidders
- C. Section 00520 - Agreement
- D. Section 00700 - General Conditions

1.04 LUMP SUM ITEMS

- A. The lump sum price shall be full compensation for all labor, materials and equipment to satisfactorily complete the installation of the items as shown on the plans and indicated in the details for lump sum bid items.

1.05 UNIT PRICE ITEMS

- A. The ENGINEER or his representative shall determine the number of units of each work item installed.

1.06 ALTERNATE BID ITEMS

- A. CONTRACTOR shall note that this project includes an alternate bid item, Item No. 32, defined below, for which CONTRACTOR shall provide a lump sum price to perform work described therein if OWNER elects to proceed with construction/work as described therein. Identification of the Low Bidder shall be based upon the sum total of Bid Item Nos. 1 through 31 and Bid Item No. 33, ~~excluding Bid Item No. 32.~~ If OWNER elects to proceed with construction/work as defined under Bid Item No. 32, ~~Bid Item No. 31 shall not be required and shall be removed from the Contract via formal change order.~~ **Bid Item No. 32 shall be billed for work included therein. If OWNER elects to forego construction/work as defined under Bid Item No. 32, Bid Item No. 32 shall be removed from the Contract via formal change order.**

1.07 SATISFACTORY COMPLETION

- A. Satisfactory completion shall include dewatering, if any, and repair or replacement of damaged landscaping, irrigation systems, pavement or other existing improvements.

1.08 PAYMENT ITEMS

- A. Unit Price Bid
 - 1. Payment shall constitute summation of measured quantities multiplied by the respective unit price for items constructed as specified herein and shown on the engineering drawings; including installation and removal of all temporary facilities, piping; and supply of all incidental materials, equipment and labor necessary to complete the contemplated Work whether specifically identified herein or not.

2. Partial progress payments will be made at monthly intervals and will be based upon the value of the Work completed on the date that a partial payment application is submitted less deductions for retainage as defined elsewhere. Signed and Sealed Record Drawings shall be submitted and approved with each partial and final pay request.

1.09 PAYMENT APPLICATION DESCRIPTION

A. Preparation of Applications:

1. Present required information in type written form, or equivalent.
2. Execute certification by signature of authorized officer.
3. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed.
4. List each authorized Change Order as an extension on the Application for Payment, listing Change Order number and dollar amount as for an original item of Work.

B. Submittal Procedures

1. Submit three copies of each Application for Payment.

Payment Period: Submit monthly as directed by the OWNER.

Submit signed and sealed record drawings covering work for which payment is being requested.

Submit revised progress schedule accurately reflecting the work completed and the schedule of future work items.

C. Substantiating Data

1. When OWNER requires substantiating information, submit data justifying dollar amounts in question.
2. Provide one copy of data with cover letter of each copy of application. Show Application number and date, and line item by number and description on each piece of data.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

3.01 GENERAL ITEMS

A. PAY ITEM NO. 1 – GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION

Payment of this item shall be on a lump sum basis. This pay item shall include the costs to comply with all elements of the General Conditions of the Contract, including but not limited to: compliance with the requirements of the General Conditions, bonds, insurance, record keeping, safety and permitting, and indemnification. Payment shall be made at the Contract Lump Sum Price as identified on the BID FORM upon completion of work identified in the general conditions. Total cost of this item shall not exceed 5% of the total bid cost. This pay item also includes complying with all elements of the General Conditions of the Contract, including but not limited to bonds, insurance, record keeping, project management, safety and permitting, and indemnification related to additional Contract scope paid for using Contract Allowance line items.

B. PAY ITEM NO. 2 – MOBILIZATION/DEMOBILIZATION

Payment of this item shall be on a lump sum basis. This pay item shall include the costs for mobilization/demobilization including work and operations in mobilizing and demobilizing for the work on the well site, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site, and for the establishment and removal of temporary offices, buildings, facilities, as required by these specifications, the special provisions, and State and local laws and regulations including pre-construction site video, sanitary facilities and any other pre- or post-construction expense necessary for starting or completing the work. Total cost of this item shall not exceed 5% of the total bid cost. No more than 65% of the amount set aside for this item may be claimed as mobilization.

3.02 WELL NO. 14 SURFICIAL AQUIFER PRODUCTION WELL CONSTRUCTION

A. PAY ITEM NO. 3 – PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES

Payment of this item shall be on a lump sum basis. The item shall be paid for at the Contract Lump Sum Price as accepted by OWNER and shall include removal of well pump, wellhead piping assemblies, and electrical service and controls, and assessment of pulled equipment and proper disposal as specified in contract documents.

B. PAY ITEM NO. 4 – PLUG AND ABANDON EXISTING WELL No. 14 AND WELLHEAD/SITWORK DEMOLITION

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials and labor necessary for satisfactory plugging/abandonment/demolition and

disposal of the well, wellhead, and buried raw water main in accordance with applicable state/federal regulations and as specified in **Section 04300 – Well Abandonment**. This item includes the demolition/disposal of existing wellhead, well pump, valves, piping, concrete, fencing, underground piping, electrical wire and conduit, control panels, telemetry units, light poles, and all other items as indicated in the plans and specifications. This pay item includes cutting/capping of the existing raw water main tie-in as necessary including restraining the existing water main as necessary for cutting/capping.

C. **PAY ITEM NO. 5 – NOMINAL 6-INCH DIAMETER PILOT HOLE TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON**

Payment of this item shall be on a lump sum basis. The item shall be paid for at the Contract Lump Sum Price as accepted by OWNER and shall include, but not be limited to, all labor, equipment and material necessary to complete the work including proper disposal of drilling mud, geophysical logging, plugging/abandonment, grout, and other materials necessary to drill a nominal 6-inch diameter pilot hole to 200-feet below land surface as described and specified in the Contract Documents and as accepted by the ENGINEER.

D. **PAY ITEM NO. 6 – FURNISH, INSTALL, AND GROUT 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT**

Payment of this item shall be on a unit price basis. The item includes furnishing all labor, equipment, materials, and incidentals necessary to install the 30-inch outside diameter (O.D.) pit casing furnished, installed, and grouted in place to the depth specified by the ENGINEER. The item shall be paid for at the Contract unit price per Linear Foot of actual measured casing installed and accepted. The item shall include but is not limited to all labor, equipment, centralizers, annular grout, and other materials necessary to properly install the casing as described in **Section 03200 – Well Casing** and as specified in the Contract Documents and accepted by the ENGINEER.

E. **PAY ITEM NO. 7 – DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD**

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the actual length of drilled borehole as measured and approved by the ENGINEER and shall be measured vertically from the bottom of the 30-inch diameter surface casing to the bottom of the nominal 28-inch diameter drilled hole interval. The item shall include but is not limited to the furnishing of all material, labor, and equipment necessary to complete the work as described in **Section 03100 - Drilling**. No additional payment will be made for dredging or for re-drilling due to partial or total hole collapse.

F. PAY ITEM NO. 8 – COMPLETE GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS

Payment of this item shall be on a unit price basis. The item includes successfully completed geophysical logs as specified in the Contract Documents for the replacement well and shall include but not be limited to furnishing all materials, labor, and equipment necessary to complete the work in accordance with the Contract Documents and as accepted by the ENGINEER.

G. PAY ITEM NO. 9 – FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC WELL CASING

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the length of 24-inch PVC well casing furnished and installed and shall be the actual measured quantities installed and approved by the ENGINEER. The length shall be calculated from land surface. The item also includes all labor, equipment, centralizers, bushing and other materials necessary to properly install the casing as described in **Section 03200 – Well Casing** and as accepted by the ENGINEER.

H. PAY ITEM NO. 10 – CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC WELL CASING IN PLACE

Payment of this item shall be on a unit price and shall be paid for at the Contract Unit Price per 94-pound sack of cement furnished. The item includes but is not limited to materials, labor, equipment, delivery charges, additives, operations, setup and removal of equipment for grout emplacement as specified in the Contract Documents and as accepted by the ENGINEER. Cement for the 24-inch diameter PVC casing installation shall be paid for at the Contract Unit Price per sack of cement furnished, and accepted by the ENGINEER, as described in **Section 03400 – Annular Grout**, and as determined by delivery tickets and field observations.

I. PAY ITEM NO. 11– DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the actual length of drilled borehole as measured from the bottom of the 24-inch diameter well casing to the bottom of the nominal 22-inch diameter drilled hole interval, and as approved by the ENGINEER. The item shall include but not be limited to the furnishing of all material, labor, equipment, and incidentals necessary to complete the work as described in **Section 03100 - Drilling**.

J. PAY ITEM NO. 12 – FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the actual length of 16-inch diameter 316 stainless steel well screen and K-packer furnished/installed below-

grade, as specified, and as accepted by the ENGINEER including, but not limited to, all labor, equipment, materials, centralizers, and incidentals necessary for proper installation as described in **Section 03600 – Well Screen**.

K. PAY ITEM NO. 13 – FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per linear foot and shall include the length of 16-inch Certa-Lok PVC well casing furnished and installed and shall be the actual measured quantities installed as specified and as approved by the ENGINEER. The length shall be calculated from land surface. The item also includes, but is not limited to, all labor, equipment, centralizers, bushings, and other materials necessary to properly install the casing as described in **Section 03200 – Well Casing** and accepted by the ENGINEER.

L. PAY ITEM NO. 14 – FURNISH AND INSTALL WELL GRAVEL PACK

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per cubic foot of gravel pack installed and accepted by the ENGINEER as determined by delivery tickets and field observations and as installed in accordance with the Contract Documents. This item shall include, but not be limited to, furnishing/installing all equipment, materials, labor, and incidentals as necessary to satisfactorily disinfect and install gravel pack from total depth to a depth specified by the ENGINEER. Gravel pack that does not meet contract specifications and ENGINEER approval will not be accepted in this line item.

M. PAY ITEM NO. 15 – PERFORM AIRLIFT WELL DEVELOPMENT

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per hour of airlift development performed and shall include the work required to perform airlift development, as approved by the ENGINEER and as described in **Section 03500 – Well Development**. The item shall include only hours of actual airlift development as approved by the ENGINEER. This item shall include, but not be limited to, furnishing/installing all material, labor, equipment, and incidentals/preparations necessary to complete the scope of work as specified in the Contract Documents.

N. PAY ITEM NO. 16 – OPTIONAL: WELL ACIDIZATION MOBILIZATION

Payment of this item shall be on a lump sum basis based upon the percentage of the work completed and approved by the OWNER. The ENGINEER shall direct the CONTRACTOR whether the work included in this item shall be performed. This optional pay item consists of preparatory work, finish work, mobilizing and demobilizing for beginning and ending work, including, but not limited to, those operations necessary for well acidization including but not limited to setup, providing acid pumping, and all labor, materials, equipment, and incidentals necessary to acidize the well as specified in the Contract Documents and as accepted by the ENGINEER.

O. **PAY ITEM NO. 17 – OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl**

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per gallon of acid furnished/installed. The ENGINEER shall direct the CONTRACTOR whether the work included in this item shall be performed. This optional pay item consists of furnishing all necessary labor, equipment, materials, and incidentals necessary to furnish/place up to 1,800 gallons of 32% hydrochloric acid into the well as directed by the ENGINEER and removal/legal-disposal of pH-stabilized water post-acidization, and all labor, materials, equipment, and incidentals necessary to complete the acid treatment as specified in the Contract Documents and as accepted by the ENGINEER.

P. **PAY ITEM NO. 18 – PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEAN OUT OF BOREHOLE**

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per hour of jetting the borehole (including simultaneous airlift) and reverse air clean out of the borehole to total depth and shall include the work required to perform jetting and reverse air clean out of the hole to the satisfaction of the ENGINEER and as described in **Section 03500 – Well Development**. The item shall include only hours of actual jetting or reverse air clean out of the hole as approved by the ENGINEER including, but not be limited to, the furnishing of all material, labor, equipment, incidentals, and preparations necessary to complete jetting, development, and clean out of the hole in accordance with the Contract Documents.

Q. **PAY ITEM NO. 19 – PERFORM PUMP DEVELOPMENT**

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per hour of pump development and shall include the work required to perform pump development of the well, including installation and removal of temporary development pump and performance of pump development to the satisfaction of the ENGINEER and as described in **Section 03500 – Well Development**. The item shall include only hours of actual pumping as approved by the ENGINEER including, but not be limited to, the furnishing of all material, labor, equipment, fuel, incidentals, and preparations necessary to complete the scope of work as specified in the Contract Documents and accepted by the ENGINEER.

R. **PAY ITEM NO. 20 – CONDUCT STEP-RATE PUMP TEST**

Payment of this item shall be on a unit price basis. The item shall be paid for at the Contract Unit Price per hour of actual step-rate pump testing (while pumping) and shall include, but not be limited to, the furnishing of all material, labor, fuel, incidentals, and equipment necessary to complete the testing as specified in **Section 04000 – Pumping Tests** as accepted by the ENGINEER. Only hours of actual step-rate pumping shall be considered for payment of this item as approved by the ENGINEER.

S. **PAY ITEM NO. 21 – COMPLETE WELL VIDEO LOGGING**

Payment of this item shall be on a unit price basis per each complete well video log performed and accepted by the ENGINEER. The item includes performance of acceptable video logs, as specified in **Section 03300 – Geophysical and Video Logging**. Video logging (in both static and dynamic conditions) shall include, but not be limited to, equipment required for the flushing of the well with potable water to provide a clear color video image to the total depth of the well and borehole, and furnishing of all material, labor, incidentals, and equipment necessary to complete the work as specified in the Contract Documents. Only video logs accepted by the ENGINEER shall be paid for under this pay item.

T. **PAY ITEM NO. 22 – WELL DISINFECTION**

Payment of this item shall be on a lump sum basis. The item includes but shall not be limited to, all equipment, materials and labor to satisfactorily disinfect the well and raw water main as required by the Contract Documents and state/local laws and regulations as related to this pay item. The CONTRACTOR shall be responsible for costs associated with re-chlorination, re-sampling, and re-testing as needed to obtain acceptable results from CONTRACTOR approved laboratory and OWNER laboratory as described in the Contract Documents.

U. **PAY ITEM NO. 23 – WATER QUALITY AND BACTERIOLOGICAL SAMPLING**

Payment of this item shall be on a lump sum basis. The item includes but shall not be limited to, all equipment, materials, and labor to satisfactorily perform water quality and bacteriological sampling/testing of the well and proposed raw water main including constructing easily accessible sampling points as required by state and local laws and regulations as related to this pay item. The CONTRACTOR shall be responsible for costs associated with re-sampling / re-testing as needed to satisfactorily obtain passing and acceptable water quality and bacteriological / disinfection test results as described in **Section 04200 – Well Facility Disinfection and Water Quality Sampling**. This item includes water quality sampling for laboratory analysis of primary and secondary drinking water standards, bacteriological sampling as required by the FDEP permit, and for any additional parameters included in the contract documents.

V. **PAY ITEM NO. 24 – FORMATION WATER DISPOSAL SYSTEM**

Payment of this item shall be on a lump sum basis. The item includes, but shall not be limited to, furnishing and installing all materials, labor, time, monitoring, operation and maintenance, and equipment necessary to install required tie-ins, temporary above grade HDPE formation water disposal piping (or approved alternate) from the well to CONTRACTOR's settling tanks and to the designated outfall locations as shown on the Contract Plans, sampling and compliance with FDEP Permit for Generic Discharge (62-621.300(2) FAC), CONTRACTOR furnished LWDD permits, implementation of necessary best management practices, and complete restoration of all areas used for formation water discharge as described

in **Section 05000 – Formation Water Disposal System**, Contract Documents, and as accepted by the ENGINEER. This pay item also includes removal and legal disposal of temporary piping, maintenance of disposal/settling system, and all temporary pumps/fittings/piping.

W. PAY ITEM NO. 25 - FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials, and labor necessary to furnish and install a new wellhead, below grade raw water main piping / fittings, valves, flow meter, above grade piping and appurtenances, pipe supports, coating of the wellhead, dewatering as necessary, and incidentals necessary to furnish/install as shown on the attached drawings and specifications. This item shall include the wellhead assembly, valves, meters, above grade piping / fittings / valves, and appurtenances, check valve, below grade raw water main piping, tie-in, disinfection/flushing of raw water main, start-up, testing, OWNER training, and any other necessary items to provide a complete and operating system.

Disinfection of the existing raw water main shall include, but not be limited to furnishing/installing all necessary labor, equipment, materials, and tooling necessary to disinfect and flush existing raw water main facilities removed from service during performance/completion of raw water main tie-in including management/legal-disposal of flushing water, and all other work necessary to place existing raw water main facilities back into normal operation to the sole satisfaction of the OWNER.

X. PAY ITEM NO. 26 - FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING

Payment of this item shall be on a lump sum basis. The item includes furnishing and installation of the submersible well pump, motor, column pipe, column pipe-pump adaptor, foot-valve, safety chains, disinfection, and all required appurtenances including but not limited to all equipment, labor, and materials required to connect all electrical services and controls and complete the work as specified in the Contract Documents and accepted by the ENGINEER.

Y. PAY ITEM NO. 27 – SITE WORK INCLUDING PERIMETER FENCING AND SITE RESTORATION

Payment of this item shall be on a lump sum basis. The item includes preparing the site for drilling, furnishing and installing temporary perimeter site security / privacy fencing, providing intended grades including adding/grading/compacting clean fill as necessary, removal/trimming of landscaping as necessary, replacement of existing vegetation as necessary, relocation of utilities as noted on the Construction Plans and as approved by the OWNER/ENGINEER, ground cover / sodding, furnishing and installing the concrete well pad, generator concrete slab, bollards, and permanent perimeter fencing and access gates as shown on the site plan, and final site restoration to existing or better conditions, to the satisfaction of the OWNER and as accepted by the ENGINEER.

Z. PAY ITEM NO. 28 – FURNISH AND INSTALL LINE STOP

The CONTRACTOR's bid unit price per each (EA) shall include all labor, materials, equipment, tools, and incidentals necessary to furnish and install the line stop, including restraining the existing water main as directed on the contract plans, concrete pad/jacket, excavation for the trench, restraining of existing utilities as required in the Contract Plans, disposal of all excess materials, containment and legal disposal of spilled fluids, bracing, sheeting, dewatering, backfilling and compaction of trenches, density testing, maintaining uninterrupted services of existing utilities, providing access to driveways and roadways at all times, excavation as necessary for exploration and installation, pipe material specific requirements including all necessary materials, equipment, labor, and/or pre-evaluation work required to confirm size/material/OD, cleaning the site of the work location, protection of existing utilities, structures, trees, shrubs, irrigation systems, and lawns, restoration of affected areas, and all other materials for a complete installation of the line stop as shown on the Drawings and as specified herein.

AA. PAY ITEM NO. 29 – FURNISH AND INSTALL TWO (2) 1000-GALLON LP UNDERGROUND STORAGE TANKS.

Payment for this item shall be on a lump sum basis. The item shall include furnishing and installation of the two (2) 1000-gallon LP underground storage tanks, connections between tanks and generators, underground gas piping, risers, regulators, below-grade anchoring system (as designed by tank supplier), and all other required appurtenances including but not limited to all equipment, labor, and materials necessary to complete the work as specified in the Contract Documents and for acceptance by the ENGINEER and OWNER. This item includes the initial LPG filling for the tanks as well as topping off the tanks as necessary post-testing / start-up. This item includes all excavation, backfill, bedding, dewatering, and compaction as necessary for tank installation. This item includes all materials, equipment, labor, tooling, fueling, and incidentals as in **Section 13200 – Underground LP Storage and Distribution** of the Technical Specifications and as shown in the Contract Plans.

BB. PAY ITEM NO. 30 – FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials, and labor necessary to furnish and install the proposed generator and automatic transfer switches (ATS) (including at Well Nos. 14R and Well 13) including the generator unit, ATS units, and concrete slab/anchoring as necessary and as shown on the attached drawings and specifications. The item includes all equipment, materials, and labor necessary to furnish and install the specified permanent emergency generator including complete installation in accordance with the manufacturer's instructions and the plans/specifications. This line item includes all necessary start-up services for the generator and ATS specific equipment.

Pay Item No. 31 includes furnishing/installing labor, equipment, materials, and incidentals necessary for installing all power feeds and services, power and control panels, instrumentation/controls, disconnects, wire, conduit, grounding, lightning

protection, SCADA, telemetry, and appurtenances shall be furnished/installed as described in the plans and specifications.

CC. **PAY ITEM NO. 31 – ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIPMENT)**

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials, and labor necessary to furnish and install electrical service to the surficial well, including all electrical facilities, instrumentation, controls, and telemetry, as necessary and as shown on the attached drawings and specifications. This item shall include all power feeds and services, power and control panels, instrumentation/controls, disconnects, wire, conduit, grounding, lightning protection, SCADA, telemetry, and appurtenances as described in the plans and specifications. This line item includes all necessary start-up services for electrical, instrumentation, and controls facilities.

This item also includes all necessary materials, equipment, labor, tooling, and incidentals required to furnish/install electrical facilities between the Well No. 14R site / generator and the existing Well No. 13 site including furnishing and installing all necessary conduit and open-cut/trenchless installation thereof, conductors, instrumentation/controls, modifications to and tie-ins to existing control panels/facilities at Well No. 13, concrete cutting/patching, necessary excavation, backfill, dewatering, sheeting/shoring, backfill, compaction, asphalt pavement / concrete sidewalk / sod restoration, site restoration required to restore the site to pre-existing conditions or better, and all other electrical work not referenced in Pay Item No. 30 and as shown on the attached drawings and specifications.

DD. **PAY ITEM NO. 32 – ALTERNATE BID ITEM – ~~ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIP.)~~ ALTERNATE ELECTRICAL CONSTRUCTION AS DEFINED IN SECTION 16000**

Payment of this item shall be on a lump sum basis. The item includes all equipment, materials, and labor necessary to furnish and install alternate electrical/communications construction as defined / detailed in Section 16000 – Electrical General Requirements, Section 16901 – I&C Systems, and Section 16681 – Variable Frequency Drive of the Technical Specifications. See Section 16681 Part 1.1.G for additional information. If OWNER elects to forego construction/work as defined under Bid Item No. 32, Bid Item No. 32 shall be removed from the Contract via formal change order.

~~Payment of this item shall be on a lump sum basis. The item includes all equipment, materials, and labor necessary to furnish and install electrical service to the surficial well, including all electrical facilities, instrumentation, controls, and telemetry, as necessary and as shown on the attached drawings and specifications. This item shall include all power feeds and services, power and control panels,~~

instrumentation/controls, disconnects, wire, conduit, grounding, lightning protection, SCADA, telemetry, and appurtenances as described in the plans and specifications. This line item includes all necessary start-up services for electrical, instrumentation, and controls facilities.

~~This item also includes all necessary materials, equipment, labor, tooling, and incidentals required to furnish/install electrical facilities between the Well No. 14R site / generator and the existing Well No. 13 site including furnishing and installing all necessary conduit and open cut/trenchless installation thereof, conductors, instrumentation/controls, modifications to and tie-ins to existing control panels/facilities at Well No. 13, concrete cutting/patching, necessary excavation, backfill, dewatering, sheeting/shoring, backfill, compaction, asphalt pavement / concrete sidewalk / sod restoration, site restoration required to restore the site to pre-existing conditions or better, and all other electrical work not referenced in Pay Item No. 30 and as shown on the attached drawings and specifications.~~

~~This item includes alternate construction as defined / detailed in **Section 16000—Electrical General Requirements, Section 16901—I&C Systems, and Section 16681—Variable Frequency Drive** of the Technical Specifications. See Section 16681 Part 1.1.C for additional information. If selected, equipment, materials, labor, and incidentals pertaining to this work item shall be furnished/installed in lieu of that which is proposed under Pay Item No. 31.~~

EE. **PAY ITEM NO. 33 – OWNER’S ALLOWANCE**

Payment of this item shall be on a Cost Incurred (CI) basis based upon invoices provided by the CONTRACTOR. This pay item shall include payments to FPL for fees required by FPL related to electrical service to Well No. 14 as well as additional project work required due to unforeseen conditions and as approved in writing by the OWNER/ENGINEER. Payment on this item shall only be with prior written approval of the OWNER/ENGINEER. CONTRACTOR shall provide an original invoice from FPL to OWNER for approval, as evidence of the total amount to be paid for electrical service connection. Costs for any additional work shall be reviewed / approved by OWNER/ENGINEER prior to any work being performed. No payments shall be made for work performed prior to / without written approval/agreement from OWNER/ENGINEER. Any remaining money left in this allowance that is not used and approved by the OWNER shall not be paid to the CONTRACTOR and shall be returned to the OWNER in a final reconciliation change order.

END OF SECTION

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ATTACHMENT 7

SECTION 02820 – CHAIN LINK FENCE – ADDENDUM NO. 1

SECTION 02820

CHAIN LINK FENCE

PART 1 – GENERAL

1.01 DESCRIPTION

This work consists of all labor, materials, and equipment necessary for furnishing and installing chain link fence, gates, temporary fencing and screening, and accessories in conformance with the specifications, drawings, and details.

1.02 RELATED SECTIONS

- A. All of Division 1.
- B. **Section 02210 – Grading.**
- C. **Section 03700 – Concrete Work.**

1.03 REFERENCES

- A. ASTM F668, Standard Specification for PVC-Coated Steel Chain Link Fence Fabric.
- B. ASTM F900, Standard Specification for Industrial and commercial Swing Gates.
- C. ASTM F1083, Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated .Welded for Fence Structures.
- D. ASTM F567, Standard Practice for Installation of Chain-Link Fences.
- E. ASTM F626 Standard Specification for Fence Fittings.

1.04 SUBMITTALS

- A. Submit manufacturer's data for fabric, posts, gates, and all other materials, finishes, and appurtenances.
- B. Submit shop drawing showing dimensions of materials and layout of posts and gates.
- C. Submit temporary fencing and screening plan.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Match, style, finish, and color of each fence component with that of other fence components. All fence components shall be black, PVC coated, **unless otherwise noted on plans. Fencing located on or tying into fencing at properties owned by the School District of Palm Beach County shall conform to the School District of Palm Beach County's design standards.**

2.02 CHAIN LINK FENCE FABRIC

- A. Fence fabric shall be black, PVC coated galvanized fabric conforming to STM F668, Class 1 or 2a with a minimum thickness of five (5) mm, **unless otherwise noted on plans. Galvanized fence fabric shall conform to the School District of Palm Beach County design standards.**
- B. Fence height shall be 96 inches, **unless otherwise noted on plans.**
- C. Core wire gauge shall be No. 9 prior to vinyl coating.
- D. Link patten shall be two (2) inch diamond mesh.
- E. Loops of knuckled selvages shall be closed or nearly closed with space not exceeding diameter of wire
- F. Wires of twisted selvages shall be twisted in a closed helix three full turns and cut at an angle to provide sharp barbs that extend a minimum of ¼-inch beyond the twist.
- G. Fencing shall be slatted, **unless otherwise noted on plans.**

2.03 POSTS

- A. Strength and stiffness requirements shall meet ASTM F1043, except as modified in this section. The steel shall meet the requirements of ASTM F1083.
- B. The post length shall be the manufacturer's standard with an allowance for a minimum of 36 inches of embedment below finished grade.
- C. Protective coating shall be a **hot dip** zinc coating applied to the internal and external portions of the post meeting the requirements of ASTM F1043, Type A.
- D. Color coating shall be applied over the zinc coating a minimum of 10 mils in thickness and matching the color of the chain link fabric.

- E. Line posts shall have an outside diameter of 2½-inches and a minimum weight of 2.96 pounds per foot.
- F. End, corner, angle, and pull posts shall have an outside diameter of three (3) inches and a minimum weight of 4.69 pounds per foot.
- G. Gates posts shall have an outside diameter of four (4) inches and a minimum weight of 4.85 pounds per foot.

2.04 TOP RAILS AND BRACE RAILS

- A. Rails shall be manufactured from **hot dip** galvanized steel pipe.
- B. The protective coating and color coating shall match the coating applied to the posts.
- C. The rails shall have an outside diameter of 1⅝ and a minimum weight of 2.27 pounds per foot.

2.05 FENCE FITTINGS

- A. Post and line caps shall be designed to accommodate passage of top rail through cap.
- B. The protective coating and color coating shall match the coating applied to the posts.
- C. Tension and brace bands shall be vinyl clad.
- D. Truss rods assemblies shall be ⅜-inches in diameter.

2.06 TENSION WIRE

- A. Tension wire shall be zinc-coated steel marcelled tension wire confirming to ASTM A824, Type II, Class 2.
- B. The protective coating and color coating shall match the coating applied to the posts.

2.07 GATES

- A. Gates shall have welded steel joints coated with zinc-based paint.
- B. The protective coating and color coating shall match the coating applied to the posts.
- C. The chain link fabric shall be attached to the gate frame a maximum of every 15 inches.
- D. Hinges shall be 180-degree commercial duty.

2.08 PVC VERTICAL SLATS

- A. The slats shall be black in color, made of UV-resistant PVC, and installed vertically the entire height of the fence.

2.08 TEMPORARY FENCING AND SCREENING

- A. Fence height shall be 72 inches.
- B. Temporary screening shall be provided with temporary fencing and may consist of non-transparent fabric or PVC vertical slats which provide a visual barrier of all fenced area.
- C. Signage shall be provided and attached to temporary fencing and shall include project emergency contact information.

PART 3 – EXECUTION

3.01 GENERAL

- A. Install chain link fences and gates in accordance with ASTM F567, except as modified in this Section.
- B. Provide necessary hardware for a complete fence and gate system.

3.02 POST SETTING

- A. Driven posts are not acceptable.
- B. Post hole depth shall be a minimum of three feet below finished grade.
- C. Post holes shall be backfilled with concrete to two (2) inches above finished grade. The concrete shall have a crown to divert water away from the post. Where posts come in contact with concrete, they shall be coated with Koppers 300M or approved equal.

3.03 GATE INSTALLATION

- A. Hang gates and adjust hardware so gates operate satisfactorily from both the open and closed positions and all latches operate freely.

3.04 FIELD QUALITY CONTROL

- A. Demonstrate to the ENGINEER proper operation of the gates from both the open and closed position prior to final acceptance.

END OF SECTION

ATTACHMENT 8

SECTION 16000 – ELECTRICAL GENERAL REQUIREMENTS – ADDENDUM NO. 1

SECTION 16000

ELECTRICAL GENERAL REQUIREMENTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General Conditions, apply to all the Work specified in the Electrical 16000 Sections.

1.02 LAWS, PERMITS, FEES AND NOTICES

- A. Secure and pay all permits, fees, and licenses necessary for the proper execution of the Work. Submit all notices and comply with all laws, ordinances, rules and regulations of any public agency bearing on the Work. CONTRACTOR shall be licensed Electrical CONTRACTOR in the county of construction.

1.03 DEPARTURES

- A. If any departures from the Contract drawings or specifications are deemed necessary, details of such departures and the reasons therefore shall be submitted to the ENGINEER for advance written approval, prior to departure.

1.04 GUARANTEES

- A. Furnish written guarantee covering all materials, workmanship, labor, and equipment for a period of one (1) year from the date of acceptance as described in the Contract General Conditions.
- B. The OWNER reserves the right to operate and use all materials and equipment failing to meet the requirements of the Contract documents until such unacceptable materials and equipment are replaced or repaired to the satisfaction of the ENGINEER.

1.05 AS-BUILT INFORMATION

- A. A set of "red-lined" electrical drawings shall be carefully maintained at the job site. Actual conditions are to be put on the drawings in red on a daily basis so the drawings will continuously show locations and routes of cable trays, conduits, pull-boxes, circuit numbers, and other information required by the ENGINEER.

1.06 JOB SITE VISIT

- A. Visit the project site before submitting a bid. Verify all dimensions shown and determine the characteristics of existing facilities which will affect performance of the Work, but which may not be shown on drawings or described within these specifications.

1.07 CLEANUP

- A. Maintain a continuous cleanup during the progress of the Work and use appointed storage areas for supplies. The premises shall be kept free from accumulations of waste materials and rubbish.

1.08 CUTTING AND PATCHING

- A. Cut and prepare all openings, chases and trenches required for the installation of equipment and materials. Repair, remodel and finish in strict conformance with the quality of workmanship and materials in the surroundings. Obtain written permission from the ENGINEER for any alterations to structural members before proceeding.

1.09 MAINTENANCE

- A. Render all necessary measures to ensure complete protection and maintenance of all systems, materials, and equipment prior to final acceptance. Any materials or equipment not properly maintained or protected to assure a factory new condition at the time of final acceptance shall be replaced immediately at no additional cost to the OWNER.

1.10 WATERPROOFING

- A. Whenever any Work penetrates any waterproofing, seal and render the Work waterproof. All Work shall be accomplished so as not to void or diminish any waterproofing bond or guarantee.

1.11 TESTS

- A. Conduct an operating test of equipment prior to the ENGINEER's approval. The equipment shall be demonstrated to operate in accordance with the requirements of these specifications. The tests shall be performed in the presence of the ENGINEER or an authorized representative. The electrical CONTRACTOR shall furnish all instruments, electricity and personnel required for the tests.

1.12 POWER SHUT DOWNS COORDINATION

- A. CONTRACTOR shall coordinate at well sites any power shut downs to the station and control panel. All power shut downs shall be kept to a minimum.

1.13 SUMMARY OF ELECTRICAL WORK

- A. Provide all labor, materials, tools, supplies, equipment, and temporary utilities to complete the Work shown on the drawings and specified herein. All systems are to be completely installed and fully operational. Specifically, the Work includes, but is not necessarily limited to:
 - 1. Demolition of existing Well 14 equipment, including existing meter, main disconnect, control panel, meter, raceways, pipe stand, and the like, see drawings and other specifications for other information.

2. Coordinate demolition work with the Owner. **Electrical Service for existing Well No. 14 shall remain in place until proposed Well No. 14R is ready to begin start-up / testing. Electrical service for exist. Well No. 14 may be disconnected once proposed Well No. 14R is ready to begin start-up / testing. Existing Well No. 14 shall not be plugged/abandoned until proposed Well No. 14R is placed into service, has been accepted by the OWNER, and OWNER has given permission to commence plugging/abandonment operations on existing Well No. 14.**
3. Power coordination with FPL for disconnect/reconnect of existing 480V aerial service. **Provide new underground FPL electrical service for proposed Well No. 14R**
4. Provide power & control raceways, pull boxes as required, and conductors as called out on drawings.
5. At Well 13 provide modifications as indicated on the drawings to add an ATS switch, and related raceways to the existing equipment.
6. **Provide for Well 14 Power distribution including new service, meter, main, well control panel with VFD, PLC and RTU equipment. Refer to the VFD specification and the I&C systems, there is a base bid (hard wired communications between VFD and PLC, and Alternate bid item where Ethernet communications between VFD and PLC is used instead)**
7. Provide and install outdoor generator on generator pad, and ATS equipment. Generator shall be properly bolted down into generator concrete slab and isolation rubber pads, 1/2" thick minimum shall be used at each tiedown or bolting point to isolate the generator bottom from slab and humidity and water to prevent corrosion of tank.
8. Grounding and lightning protection of equipment and field instruments, surge protection.
9. Installation and connection of field I&C instruments and equipment. Provide new signal conduits between ATS equipment and generator as indicated on the plans.
10. Installation of RTU Antenna for Control Panel radio telemetry.
11. Temporary and permanent power service as required.
12. Testing and startup of equipment.
13. Training and provide as-built, and O&M final shop drawings and manuals.

1.14 CODES AND STANDARDS

- A. General Applicable provisions of the following codes and standards and other codes and standards required by the State of Florida and local jurisdictions are hereby imposed on a general basis for electrical Work (in addition to specific applications specified by individual Work sections of these specifications):
1. U.L.: Electrical materials shall be approved by Underwriters' Laboratories, Inc. This applies to materials which are covered by U.L. standards. Factory applied labels are required.
 2. National Electrical Code.
 3. OSHA: Standards of the Occupational Safety and Health Administration are to be complied with.
 4. NEMA: National Electrical Manufacturers Association Standards are to be met wherever standards have been established by that agency and proof is specifically required with material submittals for switchboards, motor control centers, panelboards, cable trays, motors, switches, circuit breakers and fuses.
 5. ANSI: America National Standards Institute
 6. NESC: National Electrical Safety Code
 7. Any and all local codes.

1.15 ELECTRICAL TEMPORARY FACILITIES

- A. The electrical CONTRACTOR shall include in his bid the cost of furnishing, installing, maintaining, and removing all materials and equipment required to provide temporary light and power to perform his Work during construction and until Work is completed.
- B. Safety
1. All reasonable safety requirements shall be observed to protect workers and the public from shock and fire hazards. Ground fault interrupters shall be employed in accordance with codes.
 2. Ground wires are required in all circuits. Ground poles are required on all outlets. All metallic cases shall be grounded.
 3. Raintight cabinets shall be used for all equipment employed in wet areas.

1.16 EXCAVATING FOR ELECTRICAL WORK

- A. General – Not needed

1.17 ELECTRICAL SUBMITTALS

A. Submittals for Approval

1. Refer to Contract General Conditions for additional instructions on the General Conditions and this section, the more stringent requirements shall apply.
2. Shop Drawings and Manufacturer's data sheets are required for all electrical materials.
3. Submittals will not be accepted for partial systems. Submit all materials for each specification section at one time. Submittals must be arranged, correlated, indexed, and bound in orderly sets for ease of review.
4. Samples are to be supplied for any substitute as requested by the ENGINEER.
5. The following numbers of copies are required:

Shop drawings	6 sets
Samples	1 each
Manufacturer's data	6 sets
Certifications	6 sets
Test reports	6 sets
Warranties/Guarantees	6 sets

6. Submit shop drawings, Manufacturer's data, and certifications on all items of electrical Work prior to the time such equipment and materials are to be ordered. Order no equipment or materials without approval from the ENGINEER. Submittals will not be accepted for partial system submittals; submit all data at one time. Submittals will be promptly returned, approved, approved as noted, or not approved. Items "approved as noted" must be changed to comply with the ENGINEER's comments and need not be resubmitted for "approved" status. Items "not approved" are not suitable, requiring complete new submittals.
7. Time delays caused by rejection of submittals are not cause for extra charges to OWNER or time extensions. CONTRACTOR shall be responsible for investigating existing systems or shop drawings in order to fully integrate the new equipment into the system. Adequate shop drawings may or may not exist for all existing systems.

B. Operation and Maintenance Manuals

1. Submit to the ENGINEER five (5) copies of all Manufacturer's service installation and operation manuals, instructions, and bulletins. These manuals shall be subject to review of the ENGINEER. If acceptable they shall be forwarded to the OWNER. If not acceptable they shall be returned to the CONTRACTOR for revision and

resubmittal. Manuals shall contain, but not be limited to, the following:

- a. Brief description of system and basic features.
- b. Manufacturer's name and model number for all components in the system.
- c. List of local factory authorized service companies.
- d. Operating instructions.
- e. Maintenance instructions
- f. Trouble shooting instructions
- g. Manufacturer's literature describing each piece of equipment.
- h. Power and control wiring diagrams
- i. Parts lists

1.18 ELECTRICAL PRODUCTS

A. Standards Products

1. Unless otherwise indicated in writing by the ENGINEER, the products to be furnished under this specification shall be the Manufacturer's latest design. Units of equipment and components of the same purpose and rating shall be interchangeable throughout the project. All products shall be newly manufactured. Defective equipment or equipment damaged in the course of installation or test, shall be replaced or repaired in a manner meeting with the approval of the ENGINEER at no additional expense to the OWNER.

B. Delivery, Storage and Handling

1. Deliver products to project properly identified with names, model numbers, types, grades, compliance labels and similar information needed for distinct identification; adequately packaged or protected to prevent deterioration during shipment, storage and handling. Store in a dry, well ventilated, indoor space, except where prepared and protected by the Manufacturer specifically for exterior instructions for storage locations.

C. Substitutions

1. Comply with instructions in the Contract General Conditions and Special Conditions and obtain pre-approval of the ENGINEER regarding substitutions.

1.19 SKILLED ELECTRICAL CRAFTSMEN

- A. CONTRACTOR shall employ and staff the project with skilled Craftsmen experienced in the project requirements.
- B. As a minimum, a Licensed Journeyman Electrician shall be present on the project at all times.
- C. Other skilled persons shall be present as the project requirements dictate including Manufacturers representatives, start-up technicians, ENGINEERS, etc.

1.20 DRAWINGS AND SPECIFICATIONS

- A. Refer to the drawings for additional requirements. There are requirements indicated on the drawings which are not indicated in the specification.
- B. Bidders, suppliers, equipment vendors, General CONTRACTOR, Sub Contractors, and other similar entities are required to read all the Contract documents including drawings and specifications.

1.21 SCHEMATIC NATURE

- A. Plan views are schematic in nature and meant to show the schematic arrangement of equipment and conduit.
- B. CONTRACTOR shall provide the OWNER/ENGINEER with an 11 x 17 (min) drawing (to scale) of the final layout of the equipment and conduit routing for approval. This drawing shall include measurements for all NEC required clearances and separations for equipment and conduit. Refer to other spec sections for conduit routing requirements.

1.22 APPROVED SHOP DRAWINGS

- A. Use approved shop drawings for lay out of equipment. The Contract documents will vary from the shop drawings. Inform the ENGINEER immediately if there are lay out issues or inadequate space for equipment or clearances. Land conduits in openings of enclosures per the approved shop drawings, do not use the Contract drawings.
- B. Housekeeping pads, equipment racks and the like shall be based on the approved shop drawings.

1.23 CLEARANCES

- A. It shall be the CONTRACTOR's responsibility to meet N.E.C. clearances about equipment.

1.24 ROUTING

- A. Conduit routing is schematic in nature. Conduit routing is shown for clarity on the Contract drawings. See other spec sections for additional conduit routing requirements.

1.25 FUTURE FACILITIES

- A. Where future facilities are indicated, conduit routing shall account for such facilities.
- B. Where conduits are installed as spares or for future equipment, these conduits shall include pull string, any conduits installed exposed along a concrete pad or slab, shall be capped.

1.26 DRAWINGS FURNISHED BY CONTRACTOR

- A. OWNER shall be provided all CONTRACTOR furnished drawings. Such drawings include, but are not limited to: Control panels, MCC.s, switch boards, instrumentation details, redline mark-up of the Contract drawing and the like.
- B. Drawings shall be furnished for review and approval. No materials shall be provided without the ENGINEER's approval.
- C. Final drawings shall be furnished or as field modified accounting for any changes made during start up.

1.27 HOMERUNS

- A. CONTRACTOR shall coordinate home runs between plan views. Where any conduit is shown in any plan view it shall be installed the entire length may be required.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14 AND INSTALLATION OF STANDBY GENERATOR

PREPARED FOR VILLAGE OF PALM SPRINGS

PALM BEACH COUNTY, FLORIDA
SECTION 13, TOWNSHIP 44S, RANGE 42E



VILLAGE COUNCIL

BEV SMITH, MAYOR	
PATTI WALLER, VICE MAYOR	DISTRICT 2
KIM SCHMITZ, MAYOR PRO TEM	DISTRICT 1
JONI BRINKMAN	DISTRICT 4
GARY M. READY	DISTRICT 3

VILLAGE MANAGER

MICHAEL BORNSTEIN

UTILITIES DEPARTMENT

JIMMIE JOHNSON	UTILITIES DIRECTOR
PAUL WARD	ASSISTANT UTILITIES DIRECTOR



VICINITY MAP

NTS

SHEET INDEX

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G-2	LEGEND AND NOTES
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C-2	PROPOSED WELL No. 14R SETBACKS
M-1	WELL HEAD PLAN AND SECTION
S-1	PROPOSED WELL No.14R STRUCTURAL PLAN AND DETAILS
CD-1	DETAILS
CD-2	DETAILS
E-1	ELECTRICAL NOTES & LEGEND
E-2	OVERALL ELECTRICAL SITE PLAN
E-3	EXISTING WELL No. 14 ELECTRICAL DEMOLITION PLAN
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I-1	I&C NOTES & LEGENDS
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I-3	WELL P & ID
I-4	GENERATOR P & ID
I-5	INSTRUMENTATION DETAILS

JULY 2024

100% SUBMITTAL

HOLTZ CONSULTING ENGINEERS, INC.
HCE 270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

G-1

REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14 AND INSTALLATION OF STANDBY GENERATOR

ABND	Abandon or Abandoned	LSA	Landscape Area
ACP	Asbestos Cement Pipe	MAX	Maximum
ADD'L	Additional	MB	Mailbox
AL, Alum	Aluminum	MECH	Mechanical
APPROX	Approximate	MH	Manhole
ARV	Air Release Valve	MIN	Minimum
ASP, Asph	Asphalt	MISC	Miscellaneous
		MJ	Mechanical Joint
BFP	Backflow Preventer		
BFV	Butterfly Valve	N/D	Nail and Disk
B/L	Base Line	No	Number
BLDG	Building	NTS	Not to Scale
BM	Benchmark		
BO	Blowoff	OC,O/C	On Center
BOP	Bottom of Pipe	OD	Outside Diameter
		OHW	Overhead Wire
CATV	Cable Television	ORB	Official Records Book
CB	Catch Basin		
CO	Cleanout	PB	Plat Book
CL	Center Line	PE	Polyethylene Piping
CLF	Chain Link Fence	PGL	Profile Grade Line
CIP	Cast Iron Pipe / Cast in Place	PVC	Polyvinyl Chloride/Polyvinyl Chloride Pipe
CMP	Corrugated Metal Pipe		
CONC	Concrete	RC	Reinforced Concrete
CONST	Construct/Construction	RCP	Reinforced Concrete Pipe
		RCW	Reclaimed Water
DE	Drainage Easement	RED	Reducer
DI	Ductile Iron	REINF	Reinforce/Reinforced
DIP	Ductile Iron Pipe	RJ	Restrained Joint
DIA	Diameter	RWM	Raw Water Main
DR	Dimensional Ratio/Drainage	R/W,ROW	Right of Way
DWY	Driveway		
		S=	Slope (FT/FT)/(Rise/Run)
EL	Elevation	SAN	Sanitary
EP	Edge of Pavement	SCH/SCHED	Schedule
ESMT	Easement	SEC	Section
EOW	Edge of Water	SF	Silt Fence
EX, EXIST	Existing	SP	Sample Point
		SS	Sanitary Sewer
FDOT	Florida Department of Transportation	STA	Station
FH	Fire Hydrant		
FL	Flanged	TBM	Temporary Benchmark
FM	Force Main	TEMP	Temporary
FND	Found	TOB	Top of Bank
FNPT	Female Nominal Pipe Thread	TON	Top of Nut
FPL	Florida Power and Light	TOP	Top of Pipe
FW	Finished Water	TOS	Toe of Slope
		TYP	Typical
GPS	Global Positioning System		
GV	Gate Valve	UE	Utility Easement
		UEC	Underground Electric Conduit
HB	Hose Bibb	UGE	Underground Electric
HDD	Horizontal Directional Drill	UGT	Underground Telephone
HDPPE	High Density Polyethylene	UNK	Unknown
HYD	Hydrant		
		W/	With (Combined Form)
ID	Identification/Inside Diameter	WF	Wood Fence
INV	Invert/Invert Elevation	WM	Water Main or Water Meter
IRC	Iron Rod & Cap	WPB	Wire Pullbox
IRR	Irrigation	WTP	Water Treatment Plant
		WV	Water Valve
		WWTP	Waste Water Treatment Plant
LAE	Limited Access Easement		
LF	Linear Feet		
LP	Light Pole		
LS	Lift Station		

		CONCENTRIC REDUCER
		ECCENTRIC REDUCER
		UNION
		BALL VALVE (BV)
		GATE VALVE (GV)
		BUTTERFLY VALVE (BFV)/ ODOR CONTROL DAMPENER
		PLUG VALVE (PV)
		CHECK VALVE (CV)
		PLUG/CAP
		CLEAN OUT
		TAPPING VALVE
		LINE STOP
		HOSE BIBB
		EXISTING PIPE
		EXISTING BURIED PIPE
		PROPOSED PIPE
		PROPOSED BURIED PIPE
		MECHANICAL JOINT
		FLANGE JOINT
		FLEXIBLE COUPLING
		FLEXIBLE COUPLING WITH THRUST TIES
		ELBOW UP
		ELBOW DOWN
		90° ELBOW
		TEE UP
		TEE DOWN
		TEE
		CROSS

	EXISTING*	PROPOSED*
CABLE TV	— — CATV — — CATV —	
CENTER LINE	— — — — —	— — — — —
DRAIN	— DR — DR —	— DR — DR —
EASEMENT	— — — — —	— — — — —
ELECTRIC	— E — E —	
FENCE (BARB/FIELD)	— X — X —	— X — X —
FENCE (CHAINLINK)	— O — O —	— O — O —
FENCE (WOOD)	— WF — WF —	— WF — WF —
FIBER OPTIC	— — FOC — — FOC —	— — FOC — — FOC —
FIRE MAIN	— FIRE — FIRE —	— FIRE — FIRE —
FORCE MAIN	— FM — FM —	— FM — FM —
FORCE MAIN (LOW PRESSURE)	— LPF — LPF —	— LPF — LPF —
GAS	— — GAS — — GAS —	
GUARDRAIL	— u — u — u — u —	— u — u — u — u —
IRRIGATION	— IRR — IRR —	
OVERHEAD UTILITIES	— OHU — OHU —	
RAILROAD TRACK	— — — — —	
RAW WATER MAIN	— — RWM — —	— RWM —
RECLAIMED WATER MAIN	— — RCW — — RCW —	— RCW —
RIGHT-OF-WAY	— — — — —	
SANITARY SEWER	— — S — — S —	— — S — — S — S —
SANITARY SEWER SERVICE	— — SS — SS —	— — SS — SS —
SILT FENCE		— SF — SF —
STORM DRAINAGE	— — ST — — ST — ST —	— — ST — — ST —
TELEPHONE	— — T — — T — — T —	
TOP OF BANK	— — — — —	— — — — —
TOE OF SLOPE	—	— — — — —
TRAFFIC SIGNAL	— — TS — — TS — TS —	— — TS — — TS —
TURBIDITY BARRIER		— TB — TB —
UNKNOWN	— — UNK — — UNK —	
VACUUM SEWER	— — VS — VS — VS —	— — VS — — VS —
WATER MAIN	— WM — WM —	— WM — WM —
WATER SERVICE	— WS — WS —	— WS — WS —

* DEPICTS ABOVE GRADE

* DEPICTS BELOW GRADE

— TEXT — TEXT — TEXT —

---TEXT---TEXT---TEXT---TEXT---

CONSTRUCTION BASE LINE				
DIRECTION OF FLOW				
EXIST. SPOT ELEVATION				
REFERENCE ELEVATION				
NEW CONTOUR ELEV.				
EXIST. UTILITY POLES	 UTILITY	 POWER	 TELEPHONE	 LIGHT
NEW UTILITY POLES	 UTILITY	 POWER	 TELEPHONE	 LIGHT
PIPING CONFLICT LOCATION				
SAMPLE POINT				
WATER SURFACE	PLAN SECTION			
FIRE HYDRANT				
EXIST. MANHOLE, DRAINAGE STRUCTURE				
NEW MANHOLE, DRAINAGE STRUCTURE				
TO BE REMOVED/DEMOLISHED				

A.E.	ACCESS EASEMENT		ANTENNA
DC	DROP CURB		BENCHMARK
D.E.	DRAINAGE EASEMENT		BOLLARD
E	EAST		CABLE TV RISER
EL	ELEVATION		CATCH BASIN
LB	LICENSED BUSINESS		CONCRETE POWER POLE
LS	LICENSED SURVEYOR		DRAINAGE MANHOLE
N	NORTH		ELECTRIC BOX
NAVD	NORTH AMERICAN VERTICAL DATUM		ELECTRIC HANDHOLE
NGVD	NATIONAL GEODETIC VERTICAL DATUM		ELECTRIC METER
NO.	NUMBER		FIBER OPTIC HANDHOLE
OHW	OVERHEAD WIRE		FIRE HYDRANT
O.R.B.	OFFICIAL RECORDS BOOK		IRRIGATION CONTROL VALVE
P.B.	PLAT BOOK		JUNCTION BOX
P.B.C.R.	PALM BEACH COUNTY RECORDS		MISC. TREE WITH TRUNK DIAMETER IN INCHES
PCN	PARCEL CONTROL NUMBER		POWER POLE ANCHOR
PG.	PAGE		SANITARY MANHOLE
R/W	RIGHT OF WAY		SIGN
S	SOUTH		WATER METER
TOP	TOP OF PIPE		WATER VALVE
TON	TOP OF NUT		WOOD POWER POLE
TS	TEXTURED SURFACE		
U.E.	UTILITY EASEMENT		
W	WEST		

1. The survey depicted hereon has been classified as a Topographic Survey, as defined in Rule 5J-17.050 of the Florida Administrative Code, pursuant to Chapter 472.027, Florida Statutes as amended.
2. This survey has been prepared in the office of Dennis J. Leavy & Associates, Inc. located at: 460 Business Park Way, Suite B, Royal Palm Beach, Florida, whose certificate of authorization number is LB #6599, and the certifying surveyor's (David A. Bower) license number is LS #5888.
3. The survey sketch shown hereon does not necessarily contain all of the information obtained or developed by the undersigned surveyor in his field work, office work, or research.
4. THIS IS NOT A BOUNDARY SURVEY
5. This survey does not address environmental matters, jurisdictional boundaries or hazardous waste concerns should any of the foregoing exist.
6. The elevations shown hereon are for the purpose of indicating the ground elevation only at the position shown and in no way indicate elevations at any other point than shown hereon and do not determine sub surface conditions.
7. The undersigned makes no representations or guarantees as to the information reflected hereon pertaining to easements, rights of way, setback lines, agreements and other matters, and further, this instrument is not intended to reflect or set forth all such matters. Such information should be obtained and confirmed by others through appropriate title verification. Lands shown hereon were not abstracted for rights of way and/or easements of record.
8. This survey does not meet those standards established by the American Land Title Association.
9. Underground apparent use and/or improvements have not been shown unless otherwise noted.
10. This instrument may not be reproduced in part or whole without the written consent of Dennis J. Leavy & Associates Inc.
11. Date of field survey: July 5th, 2023, as recorded in Field Book 537, Page 51, 66, 67, 70, and 72 through 75 & Field Book 539, Page 1.
12. This survey lies in Section 13, Township 44 South, Range 42 East, Village of Palm Springs, Palm Beach County, Florida.
13. By graphic plotting only the subject property lies within Zone X, as shown on the U.S. Department of Homeland Security Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Map Number: 12099C0588F, Community: Village of Palm Springs, Number: 120223, Panel 0588, Suffix: F, Effective date: October 5, 2017.
14. In some instances, graphic representations have been exaggerated to more clearly illustrate relationships between physical improvements and/or lot lines. In all cases, dimensions shown shall control the location of the improvements over scaled positions.
15. Measurements shown hereon are expressed in feet and decimal parts thereof unless otherwise noted.
16. All dates shown within the revision block hereon are for interoffice filing use only, and in no way affect the date of the field survey stated herein.
17. Benchmark of Origin: Palm Beach County Benchmarks "FH 14" and "FH 15" whose published elevations are 17.553' and 15.448' respectively, based on the North American Vertical Datum of 1988.
18. Elevations referenced hereon are based on the North American Vertical Datum of 1988 (NGVD 88).

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0  1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 01-23-24
Scale: AS NOTED
Design By: BG
Drawn By: RR
Check By: HB

VILLAGE OF PALM SPRINGS
RECONSTRUCTION OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

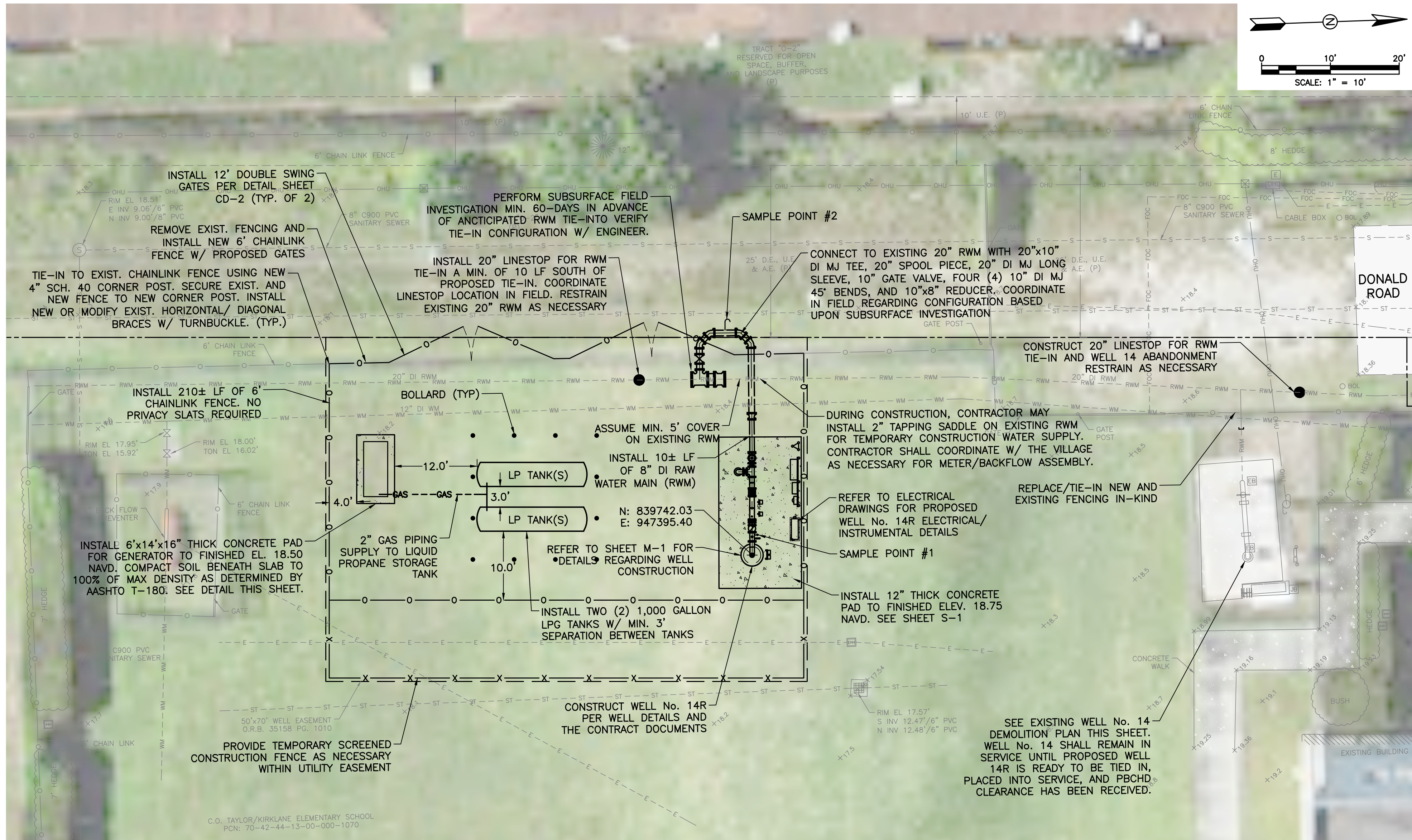
HOLTZ CONSULTING ENGINEERS, INC.
 270 SOUTH CENTRAL BLVD., SUITE 207
 JUPITER, FLORIDA 33458
 PH. (561) 575-2005
 CERTIFICATE OF AUTH. No. 26960

STEPHEN R. FOWLER, PE

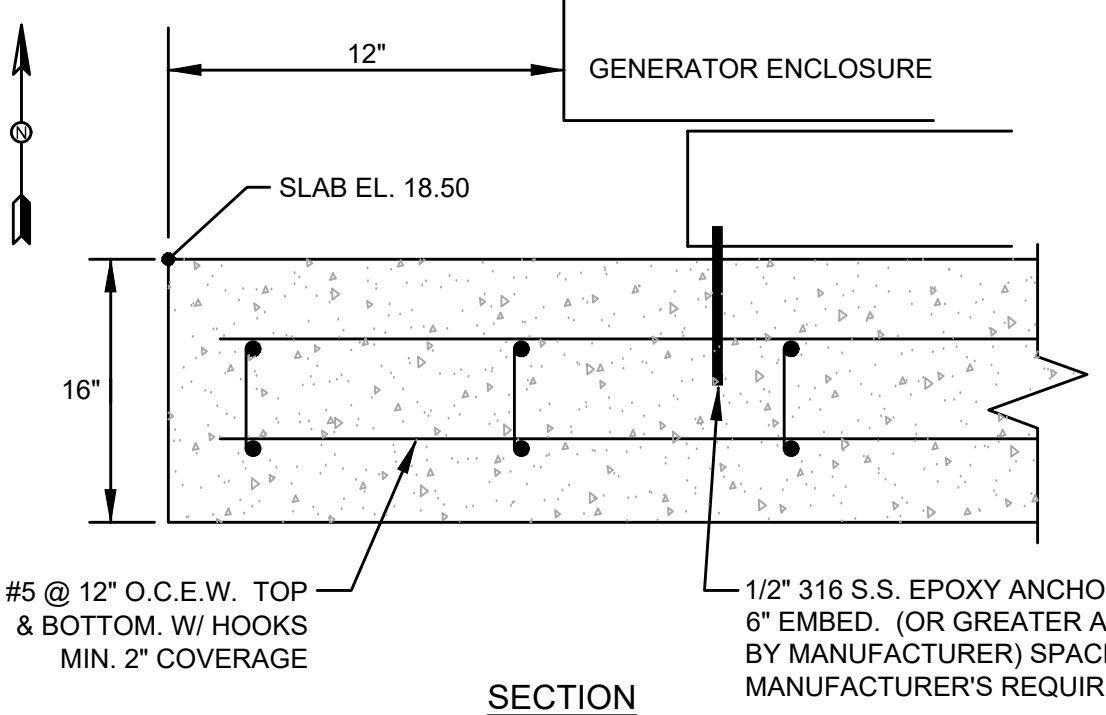
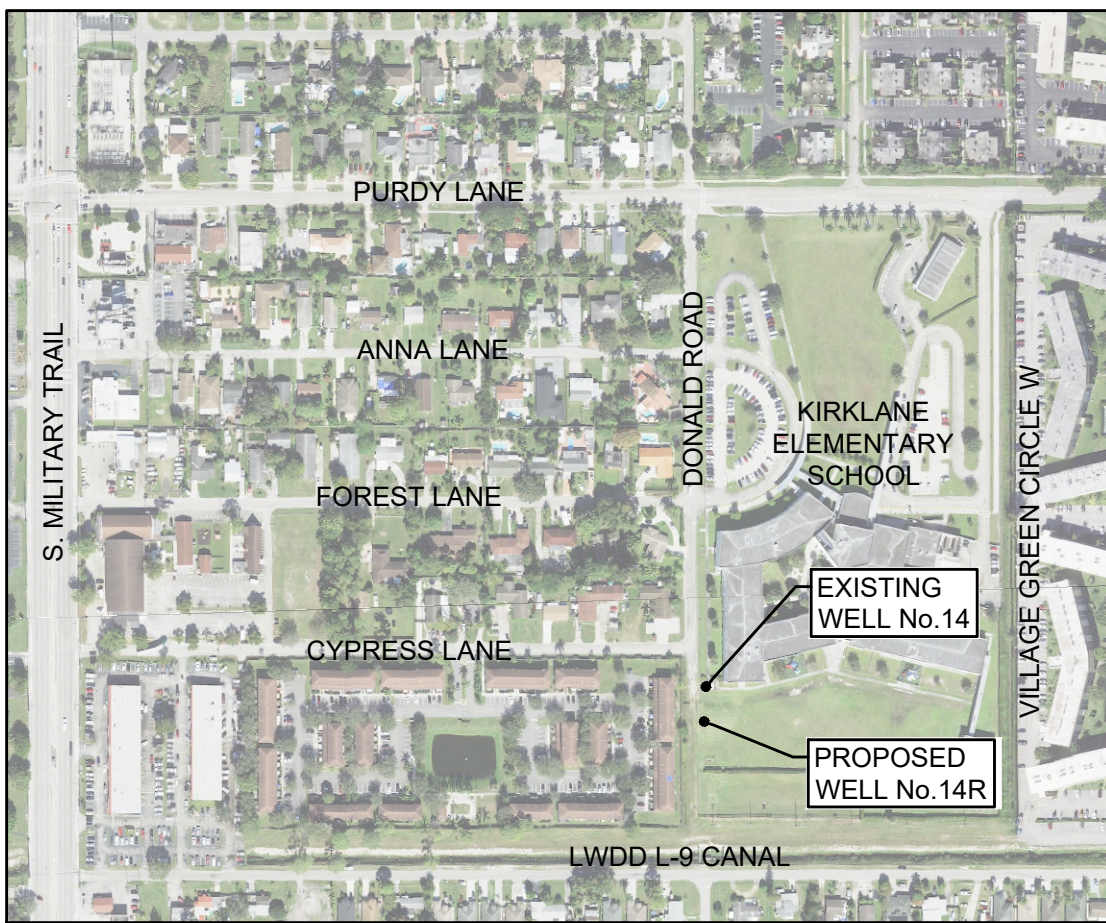


Know what's **below**.
Call before you dig.

G-2



PROPOSED WELL No. 14R SITE PLAN



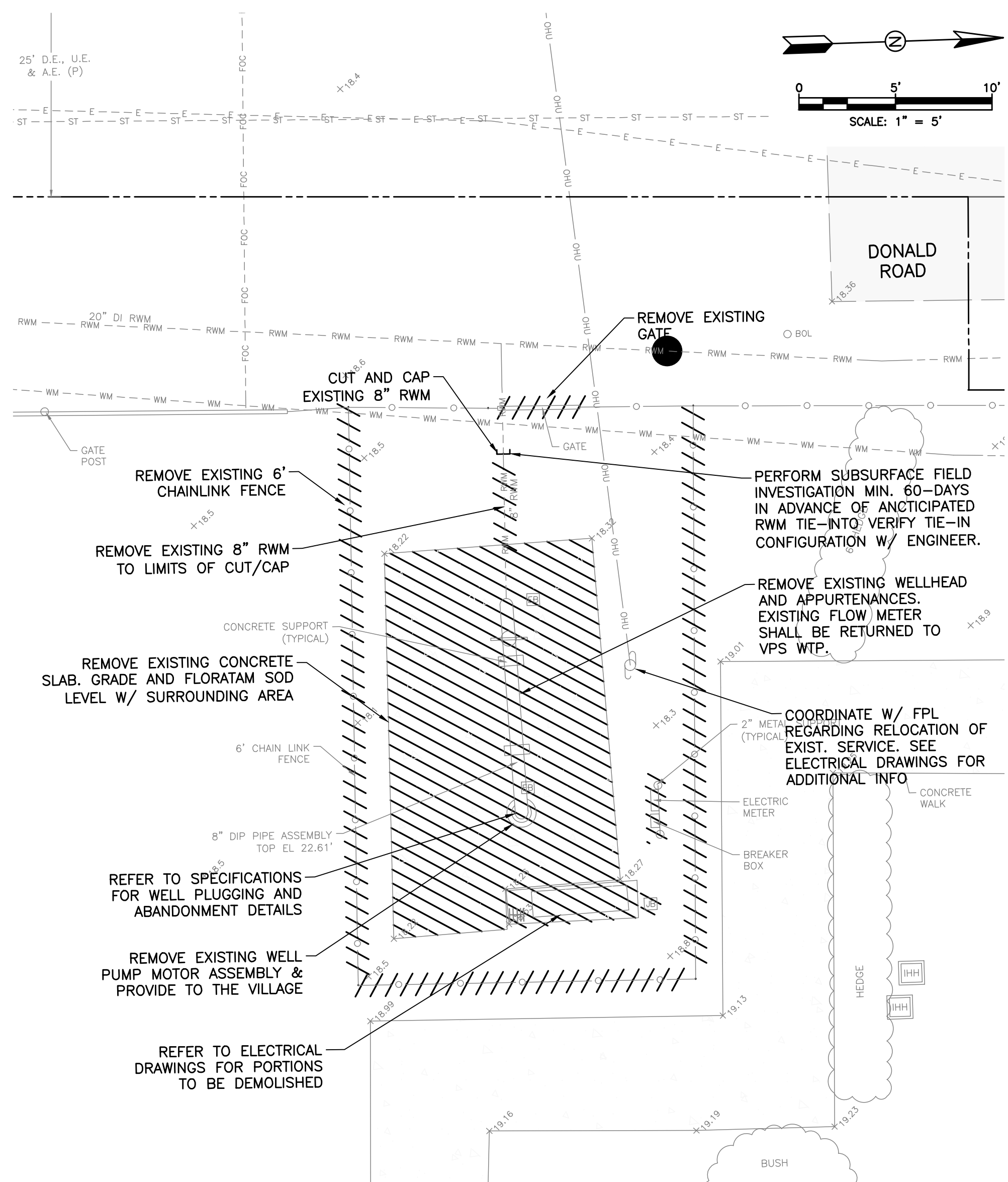
- NOTES:
1. COMPACT SOIL BENEATH SLAB TO 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
 2. CONCRETE STRENGTH AT 28 DAYS SHALL BE 4,000 PSI
 3. ALL SLABS TO BE 2" ABOVE GRADE EXCEPT WHERE SLABS MEET STABILIZED DRIVES. GRADES AT STABILIZED DRIVES SHALL BE FLUSH.

GENERATOR PAD DETAIL
NOT TO SCALE

- NOTES:
1. CONTRACTOR SHALL RE-SOD ALL DISTURBED AREAS AND SHALL RESTORE PROJECT SITE, LAYDOWN/STORAGE AREAS, AND ACCESS ROAD TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
 2. CONTRACTOR SHALL COORDINATE ALL SHUT DOWNS AND TIE-INS TO VILLAGE OF PALM SPRINGS (VPS) FACILITIES A MINIMUM OF ONE (1) WEEK IN ADVANCE (EXCLUDING WEEKENDS OR VPS HOLIDAYS).
 3. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF PANELS, DISCONNECTS, INSTRUMENTATION, CONDUIT AND WIRING.
 4. THE WELL, WELL HEAD, AND BELOW-GRADE PIPING SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 04200.
 5. WELL No. 14R IS LOCATED IN ZONE X ACCORDING TO THE FEMA FIRM COMMUNITY PANEL 1209900588F. THEREFORE, THE AREA IS ABOVE THE 100-YEAR FLOOD PLAIN.
 6. CONTRACTOR MAY USE VPS WELL EASEMENT FOR LAY-DOWN, STORAGE AND STAGING. SITE WILL REQUIRE TEMPORARY SECURITY FENCING TO SECURE ALL LAYDOWN EQUIPMENT. COORDINATE WITH VPS STAFF.
 7. DEVELOPMENT WATER SHALL BE DISCHARGED USING TEMPORARY DISCHARGE PIPING AS SHOWN AND TO SATISFACTION OF THE SCHOOL DISTRICT OF PALM BEACH COUNTY. TURBIDITY BARRIERS SHALL BE USED. SEE SECTION 05000 FOR ADDITIONAL REQUIREMENTS.
 8. CONTRACTOR SHALL COMPLY WITH THE WELLHEAD PROTECTION ORDINANCES. FUEL, CHEMICALS, AND OTHER HAZARDOUS MATERIALS SHALL BE PROPERLY CONTAINED. INFORM VPS IMMEDIATELY OF ANY SPILLS. SPILLS ARE TO BE CLEANED AT CONTRACTOR'S EXPENSE.
 9. RESTORE AREA AFFECTED BY CONSTRUCTION TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
 10. CONTRACTOR SHALL CONTACT VPS FOR OPERATION OF ALL VALVES.
 11. ALL VALVES AND FITTINGS SHALL INCLUDE 316SS INTERIOR/EXTERIOR HARDWARE.
 12. CONTRACTOR SHALL MAINTAIN LWDD STAFF ACCESS THROUGH LWDD ROW THROUGHOUT CONSTRUCTION
 13. EXISTING 8" C900 PVC GRAVITY SEWER CONSTRUCTED TO FORCE MAIN STANDARDS AND PRESSURE TESTED TO 150 PSI FOR TWO HOURS UNDER FDOH-PBC PERMIT NO. PBCDD.150-07 138287.119-DWC.
 14. CONTRACTOR SHALL GRADE AROUND PROPOSED SLABS AS NECESSARY TO PROVIDE UNIFORM SLOPE NOT TO EXCEED 1% BETWEEN SLAB AND EXISTING GRADE.
 15. CONTRACTOR SHALL COORDINATE W/ AND COMPLY W/ ALL SCHOOL DISTRICT OF PALM BEACH COUNTY REQUIREMENTS REGARDING WORK ON SCHOOL PROPERTY.



EXISTING WELL No. 14 SITE PHOTO



EXISTING WELL No. 14 DEMOLITION PLAN

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 07-24-24
Scale: AS NOTED
Design By: BG
Drawn By: RR
Check By: HB

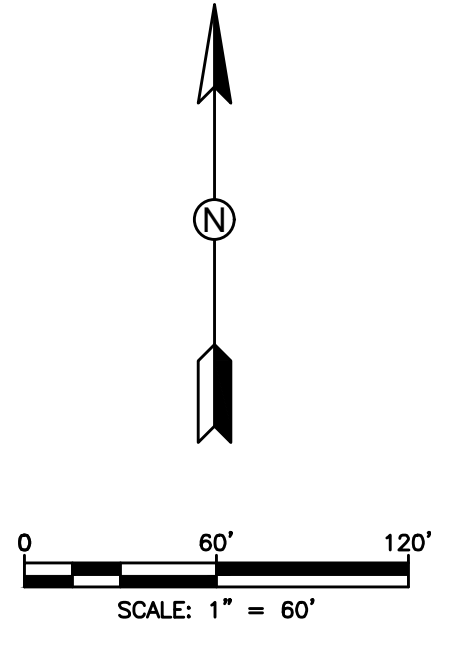
VILLAGE OF PALM SPRINGS REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14 AND INSTALLATION OF STANDBY GENERATOR

EXISTING WELL NO. 14 DEMOLITION PLAN AND PROPOSED WELL NO. 14R SITE PLAN

HOLTZ CONSULTING ENGINEERS, INC.
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PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-1



- NOTES:**
1. WELL No. 14R SHALL BE PROTECTED BY THE PALM BEACH COUNTY WELLFIELD PROTECTION ORDINANCE WHICH RESTRICTS ACTIVITY WITHIN THE WELLFIELD ZONES.
 2. ALL NEW OR REPLACEMENT SANITARY SEWER MAINS INSTALLED WITHIN PBC WELLFIELD PROTECTION ZONES 1 AND 2 SHALL BE CONSTRUCTED AND INSTALLED PER ARTICLE 14 OF THE PALM BEACH COUNTY UNIFIED LAND DEVELOPMENT CODE (ULDC), LATEST EDITION.
 3. ALL EXISTING GRAVITY SEWER JOINTS WITHIN WELL No. 14R WELLFIELD PROTECTION ZONE 2 HAVE BEEN PRESSURE TESTED AND HAVE RECEIVED JOINT/CRACK SEALING VIA INTERNAL CHEMICAL GROUTING AS NECESSARY AND IN ACCORDANCE WITH ARTICLE 14 OF THE PALM BEACH COUNTY UNIFIED LAND DEVELOPMENT CODE (ULDC), LATEST EDITION.
 4. BOTH THE VILLAGE OF PALM SPRINGS MAIN WATER TREATMENT PLANT (SERVED BY WELL No. 14R) AND THE PRATT WATER TREATMENT PLANT HAVE ADOPTED, WITH FLORIDA DEPARTMENT OF HEALTH APPROVAL, 4-LOG DISINFECTION IN THE CLEARWELL USING FREE CHLORINATION AS OF JUNE 2015. HISTORICAL WATER QUALITY REPORTS FROM 2015 THROUGH 2023 HAVE BEEN PROVIDED TO THE FLORIDA DEPARTMENT OF HEALTH PALM BEACH COUNTY BRANCH WHICH SHOW RAW WATER QUALITY ABSENT OF TOTAL COLIFORM BACTERIA, FOR EXISTING WELL No. 14.
 5. EXISTING 8" C900 PVC GRAVITY SEWER CONSTRUCTED TO FORCE MAIN STANDARDS AND PRESSURE TESTED TO 150 PSI FOR TWO HOURS UNDER FDOH-PBC PERMIT No. PBCHD. 150-07138287.119-DWC

F.A.C. 62-532 WATER WELL SETBACK REQUIREMENTS		
SETBACK	DESCRIPTION	WELL No. 14R
500-FT	ON-SITE SLOW RATE AND RAPID RATE LAND APPLICATION FLOW SYSTEMS, DOMESTIC WASTEWATER RESIDUALS LAND APPLICATION, PHOSPHOGYPSUM STACK SYSTEMS, AND SOLID WASTE DISPOSAL FACILITIES,	MEETS REQ
200-FT	ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS, YARD TRASH DISPOSAL, STORAGE, OR PROCESSING	MEETS REQ
100-FT	TRANSMISSION FACILITIES CONVEYING RECLAIMED WATER TO RESTRICTED PUBLIC ACCESS SLOW RATE LAND APPLICATION SYSTEMS, RAPID RATE LAND APPLICATION SYSTEM OR OVERLAND FLOW SYSTEMS, ABOVEGROUND OR UNDERGROUND STORAGE TANKS, ONSITE SEWAGE TREATMENT OR SOLID WASTE TANKS, SANITARY HAZARD AS DEFINED IN CHAPTER 62-550, F.A.C., FOR DRINKING WATER SUPPLY WELLS SERVING PUBLIC WATER SYSTEMS	SEE NOTES 4 & 5
75-FT	PUBLIC ACCESS, RESIDENTIAL IRRIGATION, OR EDIBLE CROP SLOW-RATE LAND APPLICATION SYSTEMS, TRANSMISSION FACILITIES CONVEYING RECLAIMED WATER TO PUBLIC ACCESS, RESIDENTIAL IRRIGATION, OR EDIBLE CROP SLOW-RATE LAND APPLICATION SYSTEMS	MEETS REQ
50-FT	SANITARY HAZARD AS DEFINED IN CHAPTER 62-550, F.A.C., FOR DRINKING WATER SUPPLY WELLS SERVING PUBLIC WATER SYSTEM	MEETS REQ.

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED DIMENSIONS ACCORDINGLY

Date: 07-24-24
Scale: AS NOTED
Design By: RG
Drawn By: RR
Check By: HB

VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

PROPOSED WELL NO. 14R SETBACKS

HOLTZ CONSULTING ENGINEERS, INC.
HCE 270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
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GENERAL NOTES

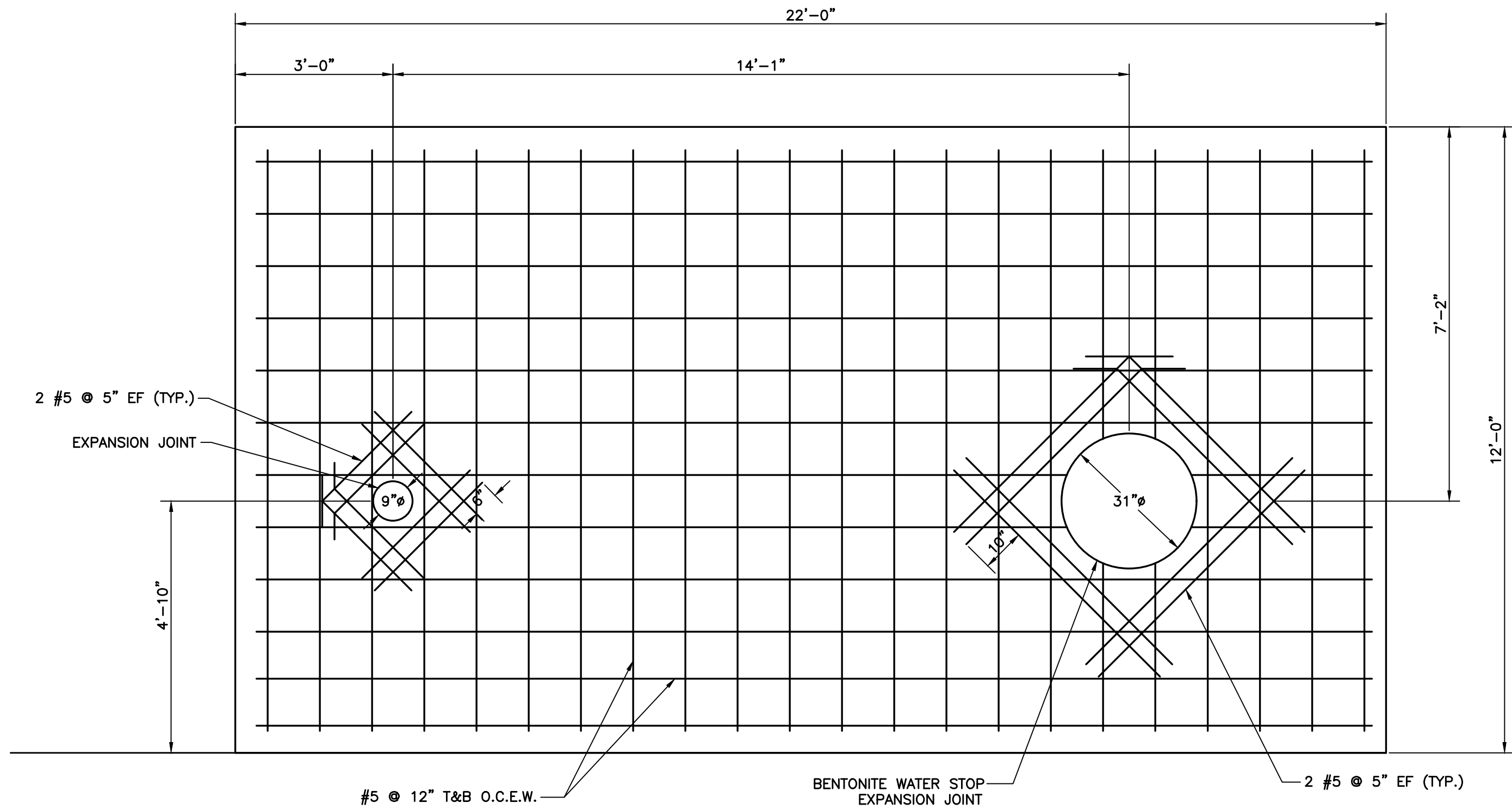
1. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE 2017 EDITION FLORIDA BUILDING CODE, THE ACI AND AISC SPECIFICATIONS AND RECOMMENDED PRACTICE.
2. ALL WORK SHALL MEET THE STANDARDS OF THE OWNER (VILLAGE OF PALM SPRINGS)
3. NO DIMENSIONS SHALL BE SCALED FROM DRAWINGS.
4. CONTRACTOR SHALL CHECK, REVIEW AND VERIFY ALL PLANS, DIMENSIONS AND SITE CONDITIONS PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS, OR ANY VARIATIONS NEEDED IN ORDER TO CONFORM TO THE CODES, RULES AND REGULATIONS. ALL DIMENSIONS SHALL BE COORDINATED WITH THE SELECTED MANUFACTURER.
5. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH CIVIL, MECHANICAL AND ELECTRICAL DRAWINGS TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OUTLET RECESSES, OPENINGS REGLETS, SLEEVES, ETC.
6. CONTRACTOR SHALL RESTRICT AND PROPERLY ISOLATE ALL CONSTRUCTION EQUIPMENT AND LOADS FROM INDUCING OR TRANSMITTING VIBRATIONS TO THE ADJACENT STRUCTURES DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL ADEQUATELY PROTECT HIS WORK AND ADJACENT PROPERTY AND BE RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLECT.
8. ALL CONNECTIONS EXPOSED TO WEATHER, OF STEEL TO STEEL AND STEEL TO MASONRY, MUST BE 316 STAINLESS STEEL BOLTS.
9. CONCRETE COVER TO REINFORCEMENT:
FOOTINGS, SIDES = 3"
FOOTINGS, BASE = 3"
ALL OTHER EXPOSED TO EARTH OR WEATHER: 3"

CONCRETE

1. CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS:
FOUNDATIONS = 4,000 PSI
SLAB ON GRADE = 4,000 PSI
A. SLUMPS SHALL BE 2" MINIMUM AND 5" MAXIMUM.
B. CONCRETE SHALL HAVE 3 PERCENT AIR ENTRAINMENT.
C. JOB SITE WATER SHALL NOT BE ADDED.
2. CONCRETE: ALL REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318-10, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ALL STRENGTHS NOTED ABOVE ARE 28-DAY STRENGTHS. EXTERIOR CONCRETE SHALL HAVE 3% MINIMUM ENTRAINED AIR.
3. SUBMIT ALL REINF. STEEL SHOP DRAWINGS FOR ENGINEER APPROVAL PRIOR TO ANY FABRICATION.
4. WELDED WIRE FABRIC: SHALL COMPLY WITH ASTM A 185, UNLESS OTHERWISE SPECIFIED. PLACE FABRIC 2" CLEAR FROM TOP OF THE SLAB IN SLAB ON GRADE AND SUPPORT ON SLAB BOLSTERS SPACED AT 3'-0" O.C., WHERE FABRIC IS REQUIRED.
5. ALL REINFORCING STEEL SHALL BE MANUFACTURED FROM HIGH STRENGTH BILLET STEEL CONFORMING TO ASTM DESIGNATION A 615 GRADE 60.
6. ALL CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER.

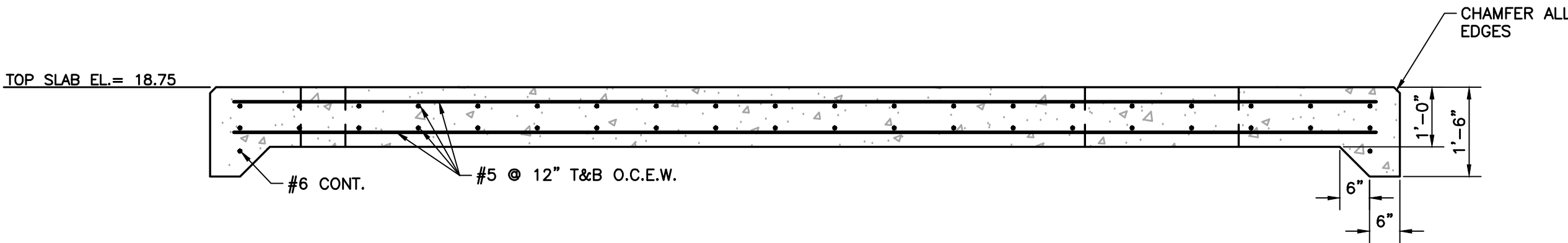
FOUNDATION

1. ALL SITE PREPARATION AND EXCAVATION WORK IS TO BE PERFORMED IN ACCORDANCE WITH STANDARD CONSTRUCTION PRACTICES AND STANDARDS
2. EXCAVATION & BACKFILL:
A. ALL EXCAVATION SHALL BE KEPT DRY. EXCAVATE TO DEPTHS AND DIMENSIONS INDICATED. TAKE EVERY PRECAUTION TO GUARD AGAINST ANY MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES, UTILITIES, PIPING, ETC.
B. BACKFILL IN HORIZONTAL LAYERS, MAXIMUM OF 12" THICK LAYERS AND COMPACT TO A MINIMUM OF 98% MAXIMUM PROCTOR DENSITY. PLACE BACKFILL SYMMETRICALLY, TAKING CARE TO PREVENT ANY ECCENTRIC LOADING OR WEDGING ACTION AGAINST WALLS OR BUILDINGS.
C. BACKFILL TESTING: ONE (1) TEST PER EACH 12" LAYER OF COMPACTED SOIL FOR EACH 1,000 S.F. OF AREA OR FRACTION THEREOF. MINIMUM OF TWO (2) TESTS FOR ANY AREA.
3. DIMENSIONS: ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE VERIFIED AND COORDINATED WITH THE FIELD CONDITIONS AND APPROVED BY ENGINEER. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING BEFORE PROCEEDING WITH ANY WORK.
4. MINIMUM REQUIRED SBV = 2,000 PSF.



WELL HEAD CONCRETE SLAB PLAN

SCALE: 1/2" = 1'-0"



WELL HEAD CONCRETE SLAB SECTION

SCALE: 1/2" = 1'-0"

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VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
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ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

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Drawn By: RR
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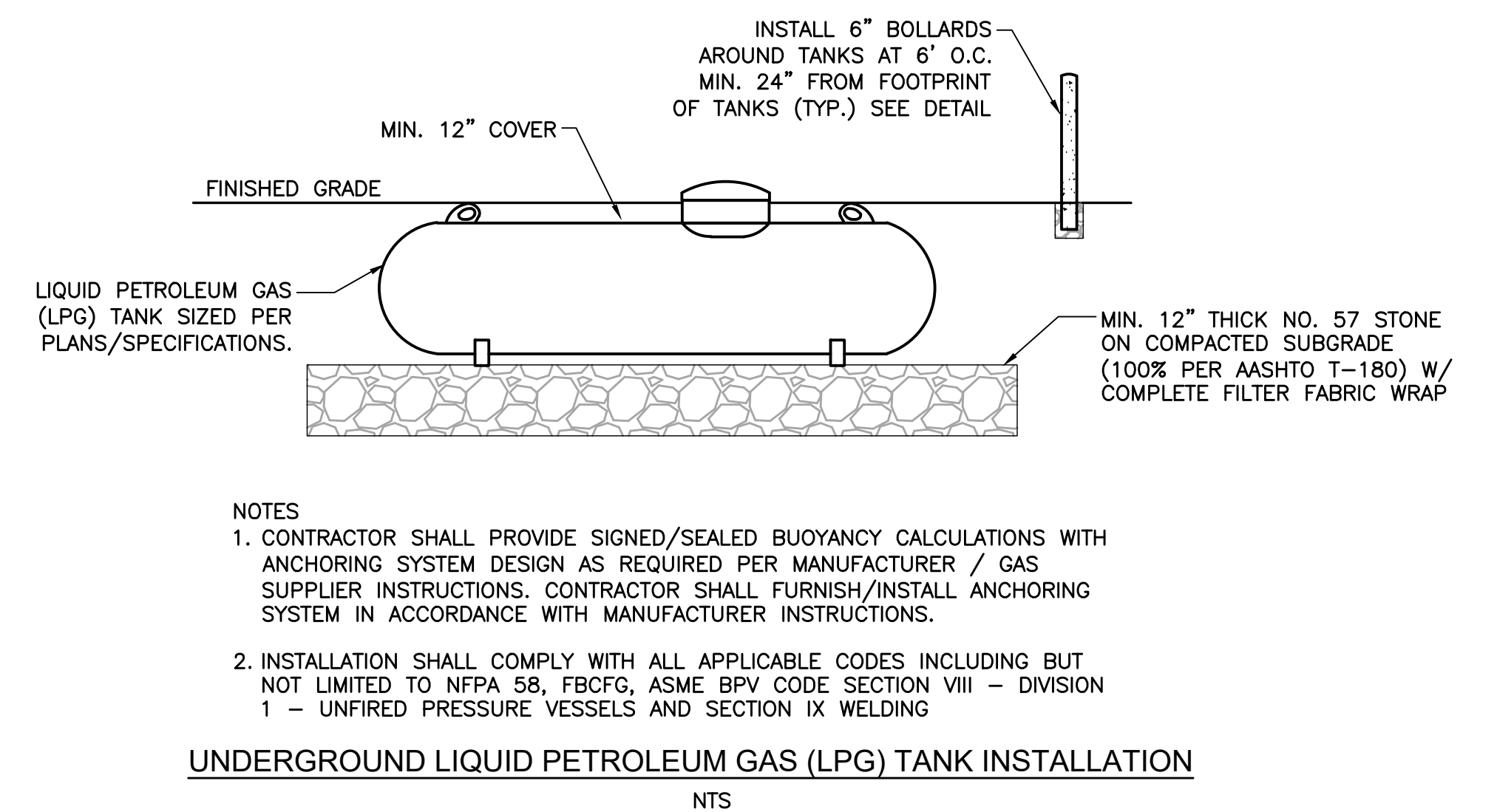
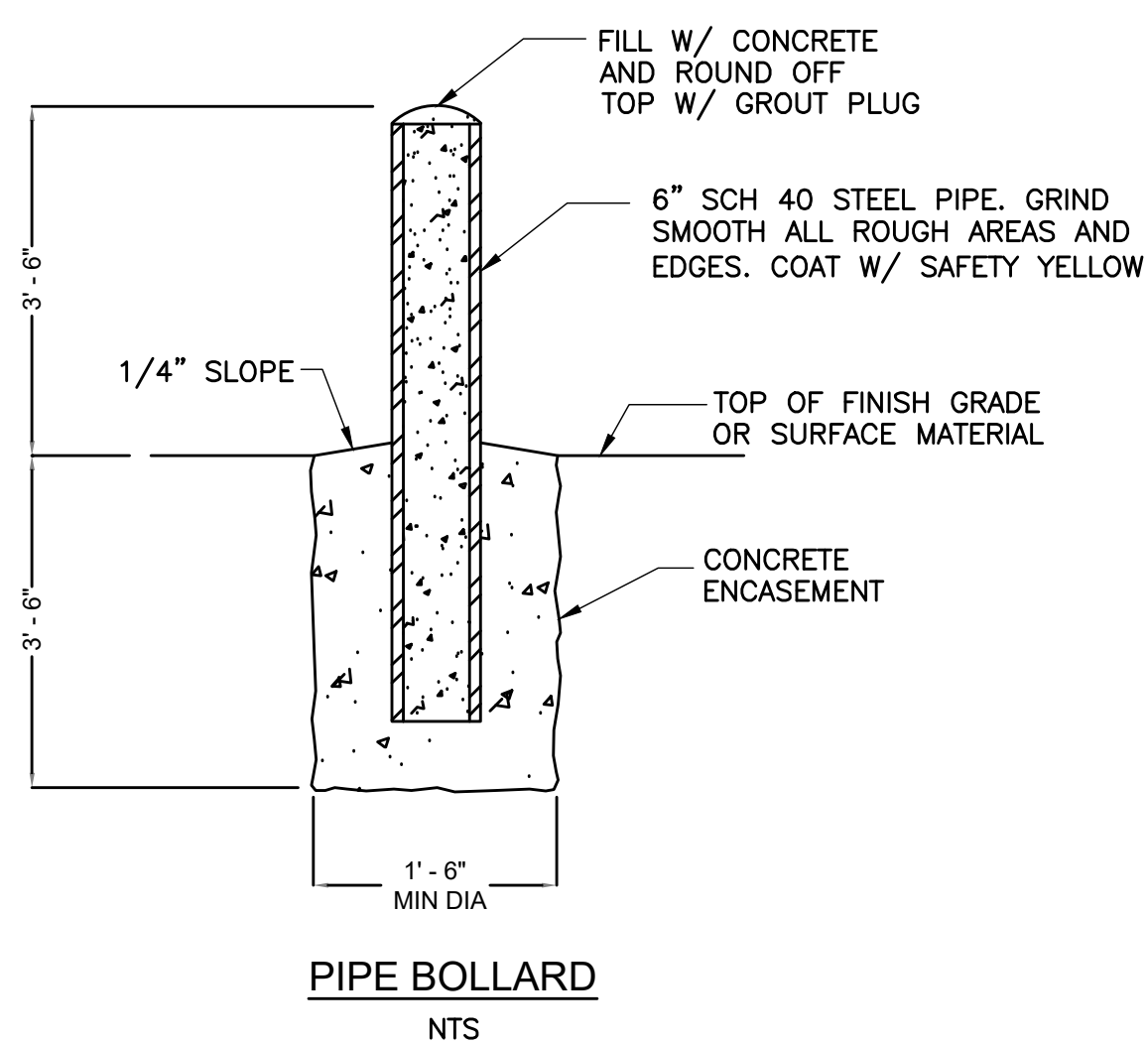
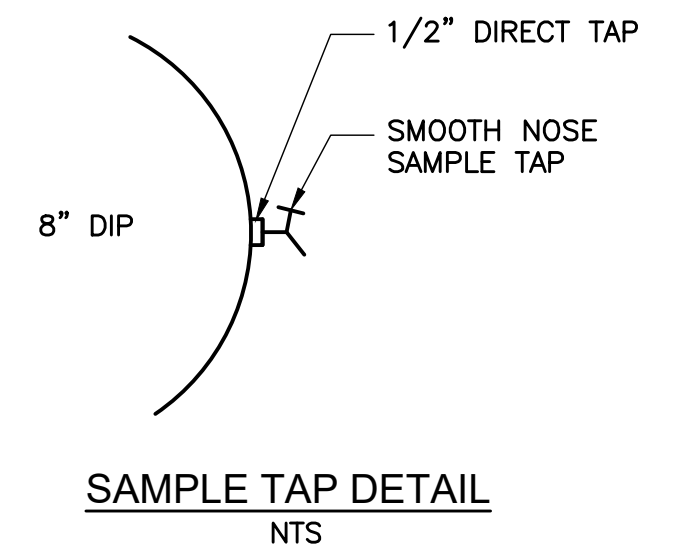
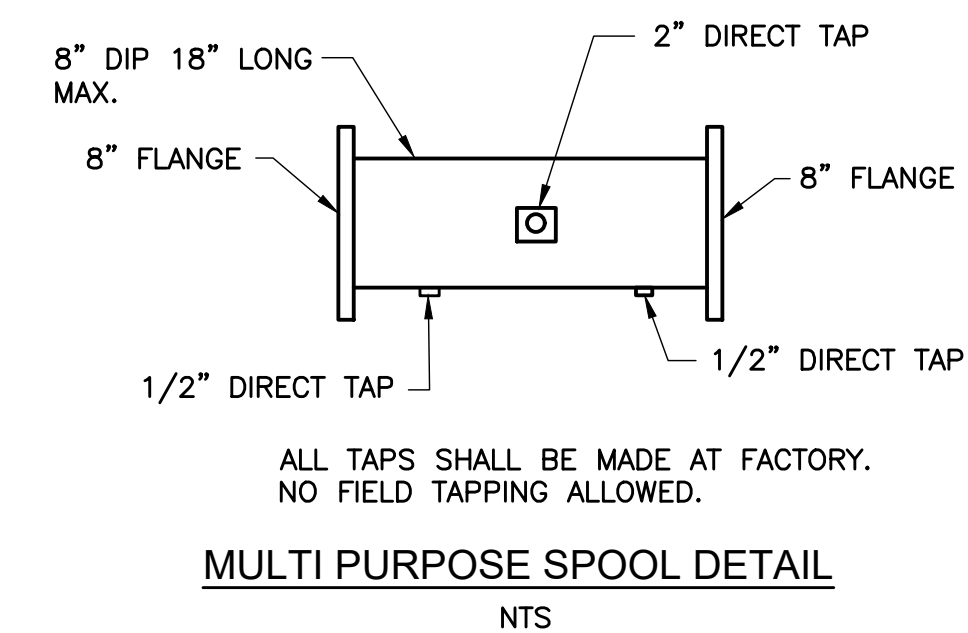
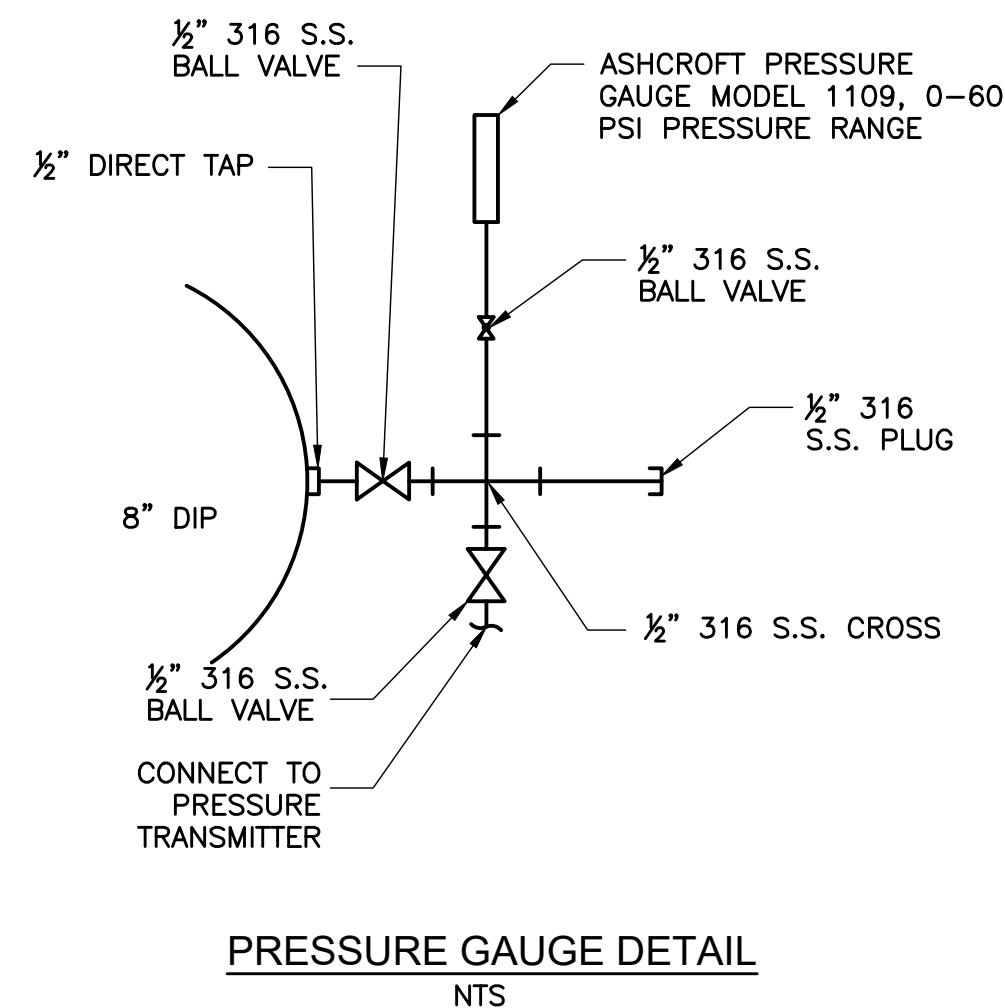
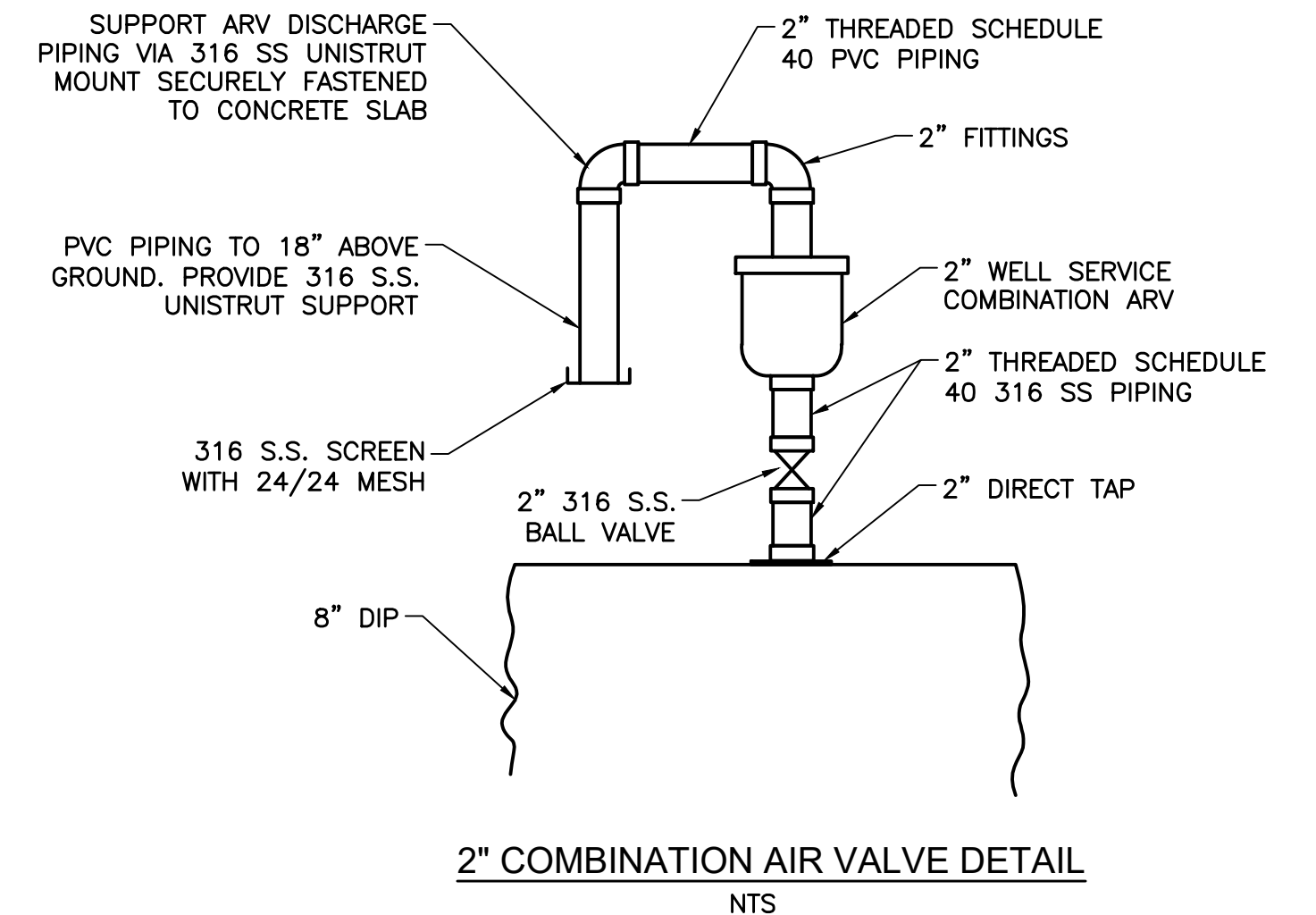
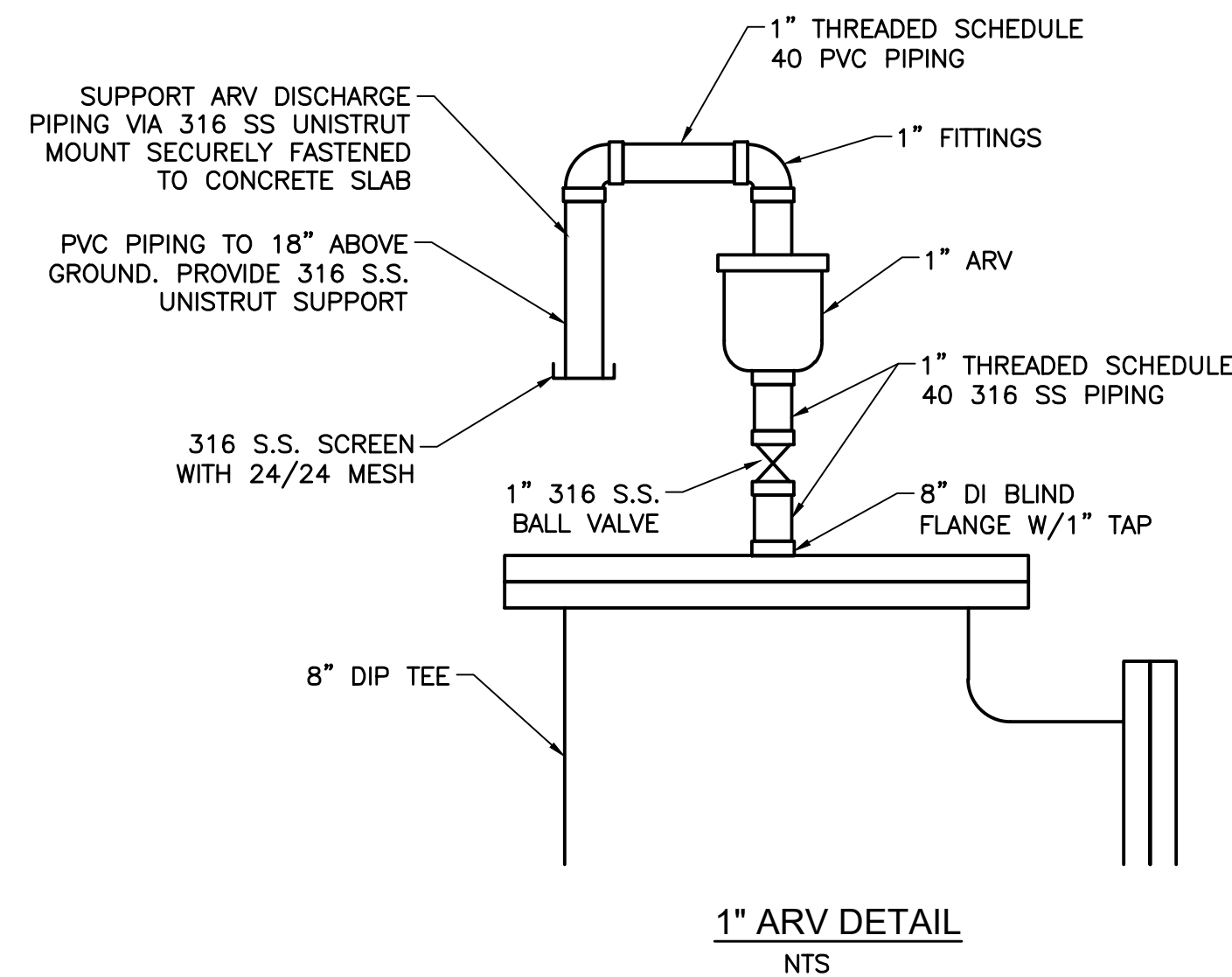
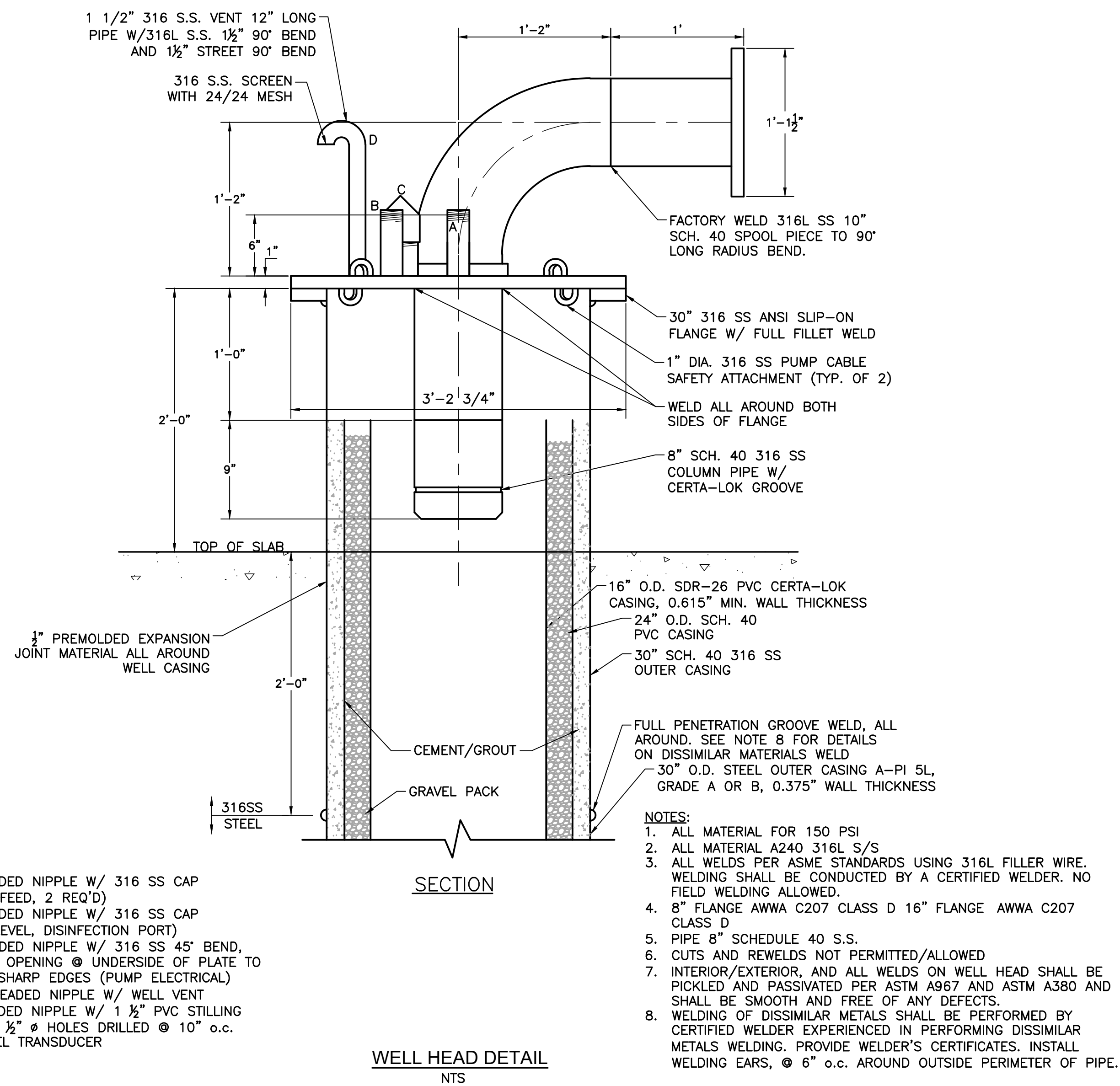
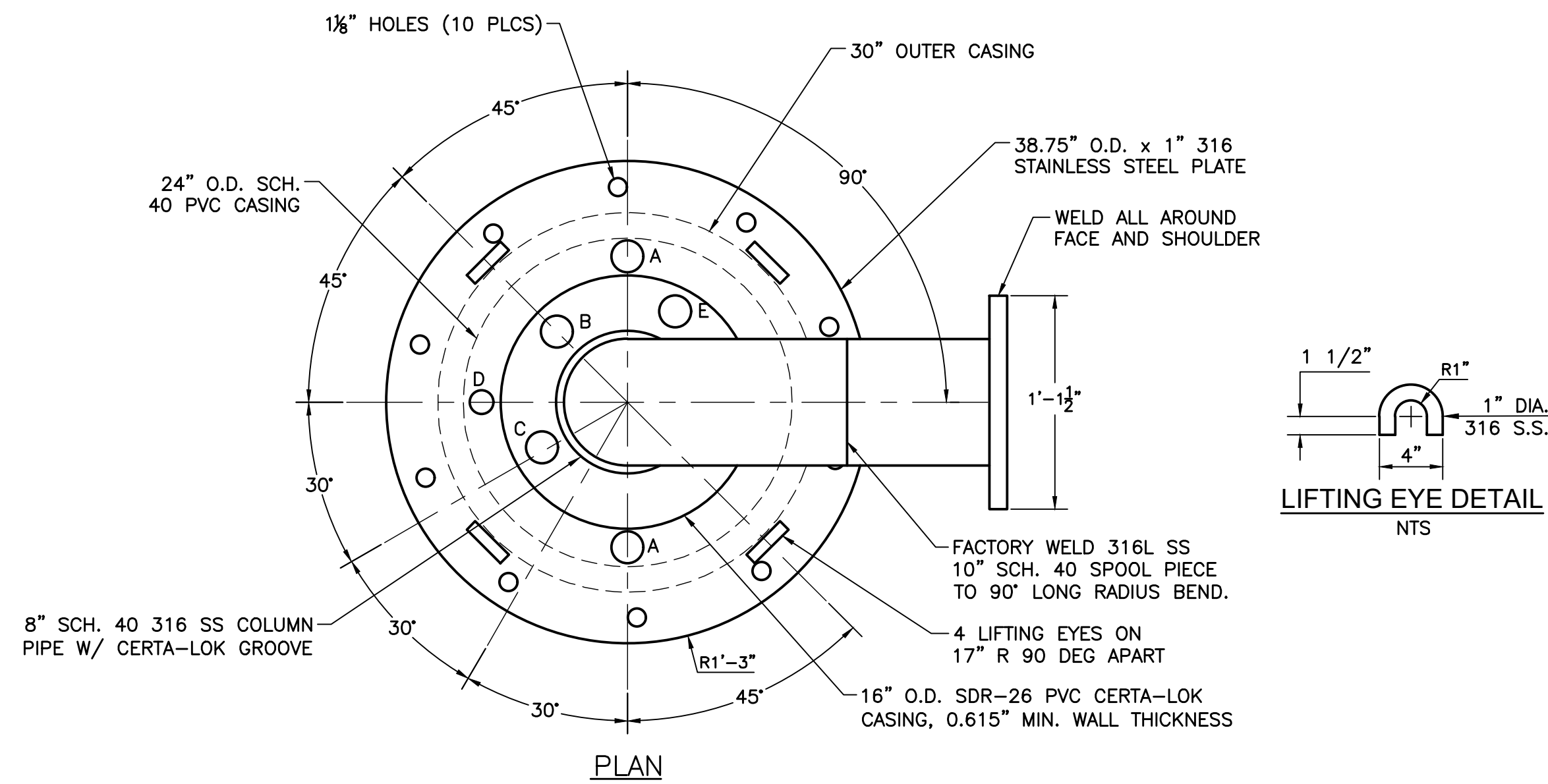
VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

PROPOSED WELL NO.14R
STRUCTURAL PLAN AND DETAILS

HOLTZ CONSULTING ENGINEERS, INC.
HCE 270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
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CERTIFICATE OF AUTH. No. 26960

STEPHEN R. FOWLER, PE
License No: 69039

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VILLAGE OF PALM SPRINGS REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14 AND INSTALLATION OF STANDBY GENERATOR

DETAILS

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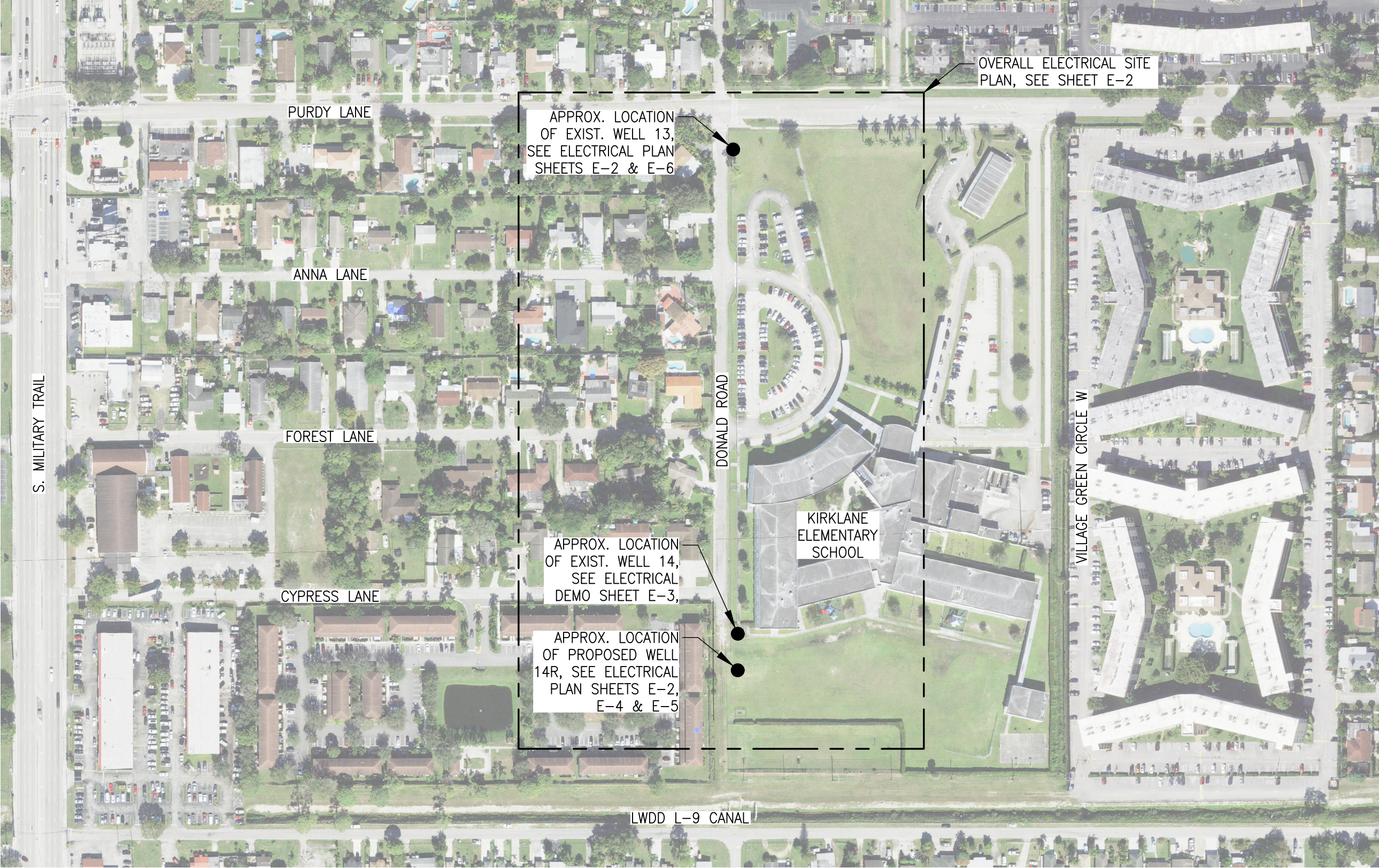
ROBERT HARRISON BARRON III
License No. 91550

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GENERAL ELECTRICAL NOTES

1. **SCHEMATIC NATURE**
PLAN VIEWS ARE SCHEMATIC IN NATURE AND MEANT TO SHOW THE SCHEMATIC ARRANGEMENT OF EQUIPMENT AND CONDUIT.
2. **APPROVED SHOP DRAWINGS**
USE APPROVED SHOP DRAWINGS FOR LAY OUT OF EQUIPMENT. THE CONTRACT DOCUMENTS WILL VARY FROM THE SHOP DRAWINGS. INFORM THE ENGINEER IMMEDIATELY IF THERE ARE LAY OUT ISSUES OR INADEQUATE SPACE FOR EQUIPMENT OR CLEARANCES. LAND CONDUITS IN OPENINGS OF ENCLOSURES PER THE APPROVED SHOP DRAWINGS, DO NOT USE THE CONTRACT DRAWINGS.
3. **CLEARANCES**
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MEET N.E.C. CLEARANCES ABOUT EQUIPMENT. THE SAME APPLIES TO RACEWAY SUPPORTS.
4. **ROUTING**
CONDUIT ROUTING IS SCHEMATIC IN NATURE. CONDUIT ROUTING IS SHOWN FOR CLARITY ON THE CONTRACT DRAWINGS. ROUTE CONDUITS AS MAY BE REQUIRED.
5. **FIELD VERIFICATIONS**
FIELD VERIFY ALL EXISTING CONDITIONS. MAKE MINOR ADJUSTMENTS AS NEEDED. INFORM OWNER/ENGINEER OF INCONSISTENCIES IMMEDIATELY IF PROBLEMS OR CONFLICTS EXIST.
6. **COMPLETE AND FUNCTIONAL SYSTEMS**
PROVIDE ALL LABOR AND MATERIAL FOR A COMPLETE AND FUNCTIONAL SYSTEM. DEMONSTRATE SYSTEM OPERATION TO THE OWNER/ENGINEER.
7. **LABELING**
THE CONTRACTOR SHALL PROVIDE LAMCOID PRINTED LABELS FOR ALL EQUIPMENT AND TYPED PANELBOARD SCHEDULES AS REQUIRED.
8. **CONTRACTOR MINIMUM REQUIREMENTS**
PROVIDE AND INSTALL A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM SHALL BE INCLUDED.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS.
- ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NFPA, AND THE LOCAL BUILDING CODES. ALL COMPONENTS SHALL BE U.L. APPROVED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL CONCEALED FACILITIES BEFORE ANY WORK BEGINS.
9. **SCOPE OF WORK**
1. DEMO EXISTING ELECTRICAL EQUIPMENT.
2. INSTALL ELECTRICAL RACEWAYS & EQUIPMENT.
3. INSTALL FIELD INSTRUMENTS.
4. PROVIDE PROGRAMING OF RTU/PLC AND PLANT SCADA FOR WELL 14R.
5. TEST AND STARTUP OF NEW EQUIPMENT AND INSTRUMENTS.
10. **CONDUIT**
CONDUIT SIZES AS SHOWN ON THE DRAWINGS ARE MINIMUM. THE CONTRACTOR MAY INCREASE AS REQUIRED FOR EASE OF PULLING.

11. **JUNCTION BOXES**
PROVIDE ADDITIONAL BOXES AS MAY BE REQUIRED.
12. **CONDUCTORS**
CONDUCTORS SHALL BE COPPER STRANDED TYPE THWN WITH 75°C RISE INSULATION.
13. **GROUNDING**
PROVIDE GROUND SYSTEM AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE NATIONAL ELECTRIC CODE.
14. **FUTURE FACILITIES**
WHERE FUTURE FACILITIES ARE INDICATED. CONDUIT ROUTING SHALL ACCOUNT FOR SUCH FACILITIES.
15. **RESPONSIBILITIES**
BIDDERS, SUPPLIERS, EQUIPMENT VENDORS, GENERAL CONTRACTOR, SUB CONTRACTORS AND OTHER SIMILAR ENTITIES ARE REQUIRED TO READ ALL THE CONTRACT DOCUMENTS INCLUDING DRAWINGS AND SPECIFICATIONS.
16. **HOME RUNS**
CONTRACTOR SHALL COORDINATE HOME RUNS BETWEEN PLAN VIEWS. WHERE ANY CONDUIT IS SHOWN IN ANY PLAN VIEW IT SHALL BE INSTALLED THE ENTIRE LENGTH AS MAY BE REQUIRED.
17. **SEPARATION**
MAINTAIN MIN. 12" SEPARATION BETWEEN 4-20MADC SIGNAL AND OTHER RACEWAYS.
18. **DEMOLITION**
AS MAY BE REQUIRED.
19. **SHUT DOWNS**
CONTRACTOR SHALL COORDINATE ANY POWER DOWNTIME WITH FPL AND THE OWNER. ANY POWER DOWN TIME SHALL BE APPROVED BY THE OWNER.
20. **RESTORATION**
CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITION ALL FACILITIES HE DISTURBS. CONTRACTOR SHALL PROVIDE CLEANUP, AND PROPER DISPOSAL, AND PAY ALL FEES FOR ALL DEMOLISHED MATERIALS AND THE LIKE.



AERIAL SITE PLAN

SCALE: 1" = 200'

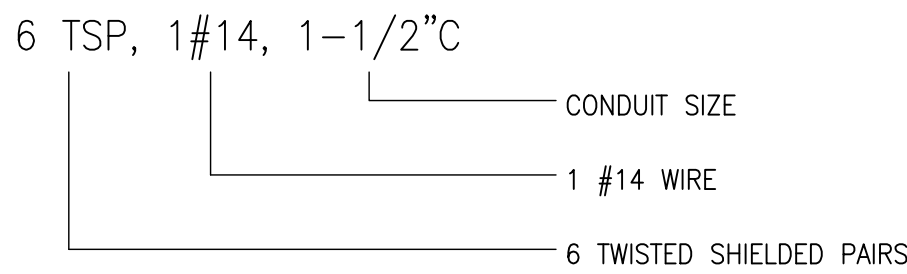
ELECTRICAL LEGEND

	RACEWAY EXPOSED		SELECTOR SWITCH
	LIGHTING RACEWAY CONCEALED		PUSH BUTTON
	RACEWAY CONCEALED		ON-OFF SWITCH
	RACEWAY TURNED UP/DOWN		NORMALLY OPEN CONTACT
	MOTOR		NORMALLY CLOSED CONTACT
	TRANSFORMER		JUNCTION BOX
	FUSE		PANELBOARD, ELECTRICAL EQUIP. ENCL.
	CIRCUIT BREAKER		MOTOR OPERATED VALVE
	CAPACITOR		RED, MAINTAINED PUSH BUTTON
	LIGHTNING ARRESTER		TIMING CONTACT
	SAFETY DISCONNECT SWITCH, HP RATED		ENCLOSED COMBINATION STARTER
	GROUND		CONTROL RELAY, MOTOR STARTER, ETC.
	DUPLEX, 14" AFF		DENOTES CONDUIT TAG 01
	LEVEL SWITCH, FLOAT SWITCH		DENOTES SEPARATE CONDUITS WITH SEPARATE WIRE
	THERMAL SWITCH		DENOTES PANELBOARD A, CIRCUIT 3
	HEATER		
	PILOT LIGHT		
	RUN TIME METER		

ELECTRICAL ABBREVIATIONS

BPSCP	BOOSTER PUMP STATION CONTROL PANEL	PB	PULL BOX
CB	CIRCUIT BREAKER	PDP	POWER DIST. PANEL
CM	COMPRESSOR	PM	POWER MONITOR
CP	CONTROL PANEL	PNLBD	PANEL BOARD
CR	CONTROL RELAY	PSB	PUMP STATION BYPASS
CV	CONTROL VALVE	PSCP	PUMP STATION CONTROL PANEL
DFM	DISCHARGE FLOW METER	PSV	PRESSURE SUSTAINING VALVE
DISC	DISCONNECT SWITCH	R,G,A	RED, GREEN, AMBER PILOT LIGHT
ETM	ELAPSED TIME METER	RGS	RIGID GALVANIZED STEEL
F	FUSE	RTU	REMOTE TERMINAL UNIT
FSA	FIELD SURGE ARRESTOR	SM	SUB-METER
GEN	GENERATOR	SA	SURGE ARRESTER
GFI	GROUND FAULT INTERRUPTER	SB	SURGE BOX
HOA	HAND-OFF-AUTO	SC	SURGE CAPACITOR
HOR	HAND-OFF-REMOTE	SCC	SHIELDED CONTROL CABLE
IDF	INLET AND DISCHARGE FLOW	SS	SELECTOR SWITCH OR 316 STAINLESS STEEL
IPB	INST. PULL BOX	TD	TIME DELAY
LA	LIGHTNING ARRESTER	TS	TEST SWITCH
M	MOTOR STARTER	US	UP STREAM
MCC	MOTOR CONTROL CENTER	WP	WEATHER PROOF
MLO	MAIN LUGS ONLY	XFMR	TRANSFORMER
OL	OVER LOAD RELAY	ZSC	POSITION SWITCH CLOSED
OH	OVERHEAD	ZSO	POSITION SWITCH OPEN
OOX	OFF, OFF, ON		
PB	PUSH BUTTON		

CONDUIT LEGEND



MATERIAL SCHEDULE

LOCATION	CONDUIT	MISC ENCLOSURE MATERIALS	MISC ENCLOSURE NEMA RATING	FASTENERS, STRUT, THREADED ROD, ETC.	REMARKS
INTERIOR					
EXPOSED	PVC SCHED. 80	316 SS	4X	316 SS	
EXTERIOR					
BELOW GRADE	PVC SCHED. 40	CONCRETE BOXES	N/A	316 SS	
ABOVE GRADE	PVC SCHED. 80	316 SS	4X	316 SS	

GENERAL NOTES

1. THE SCHEDULE SHALL ESTABLISH THE MINIMUM LEVEL OF QUALITY FOR MATERIALS. UNLESS OTHERWISE INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS
2. THE SCHEDULE SHALL NOT APPLY TO POWER TRANSFORMERS, LIGHT FIXTURES AND THE LIKE, THOSE ELEMENTS ARE NOTED OR INDICATED ELSEWHERE

LEGEND

N/A	NOT APPLICABLE
316 SS	316 STAINLESS STEEL

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(561) 642-5333

REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

ELECTRICAL NOTES & LEGEND

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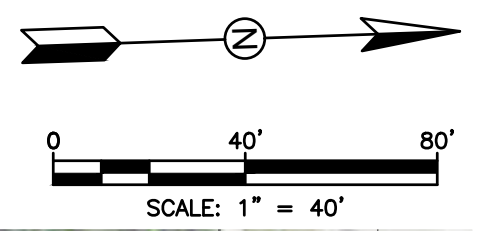
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SPECIFIC ELECTRICAL NOTES

1 PROVIDE DIRECTIONAL BORING, REFER TO SPECIFICATIONS. TRENCH WHEREVER DIRECTIONAL BORING IS NOT FEASIBLE, RESTORE SURFACES TO ORIGINAL CONDITION.



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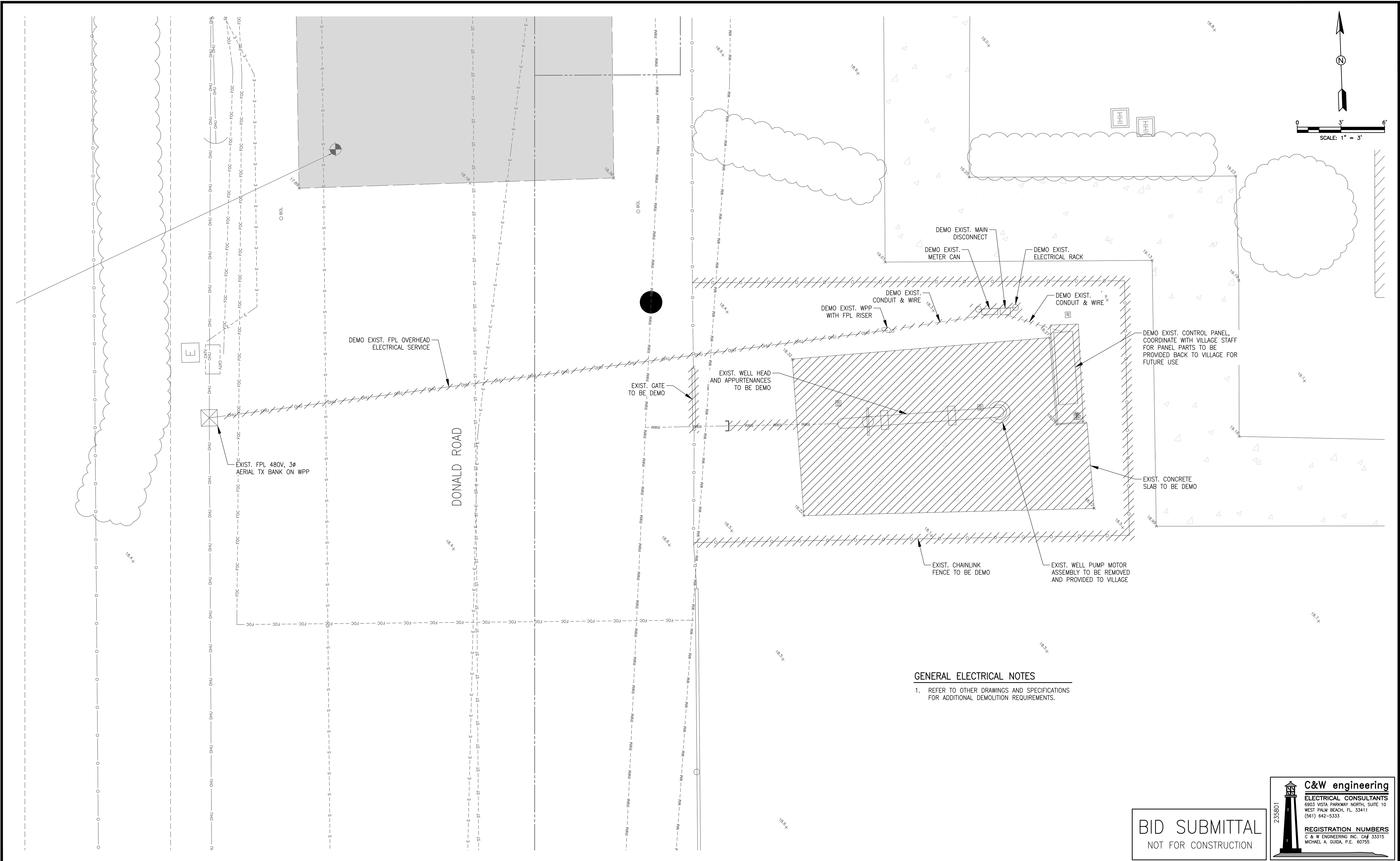
VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

OVERALL ELECTRICAL SITE PLAN

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GENERAL ELECTRICAL NOTES

1. REFER TO OTHER DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS.

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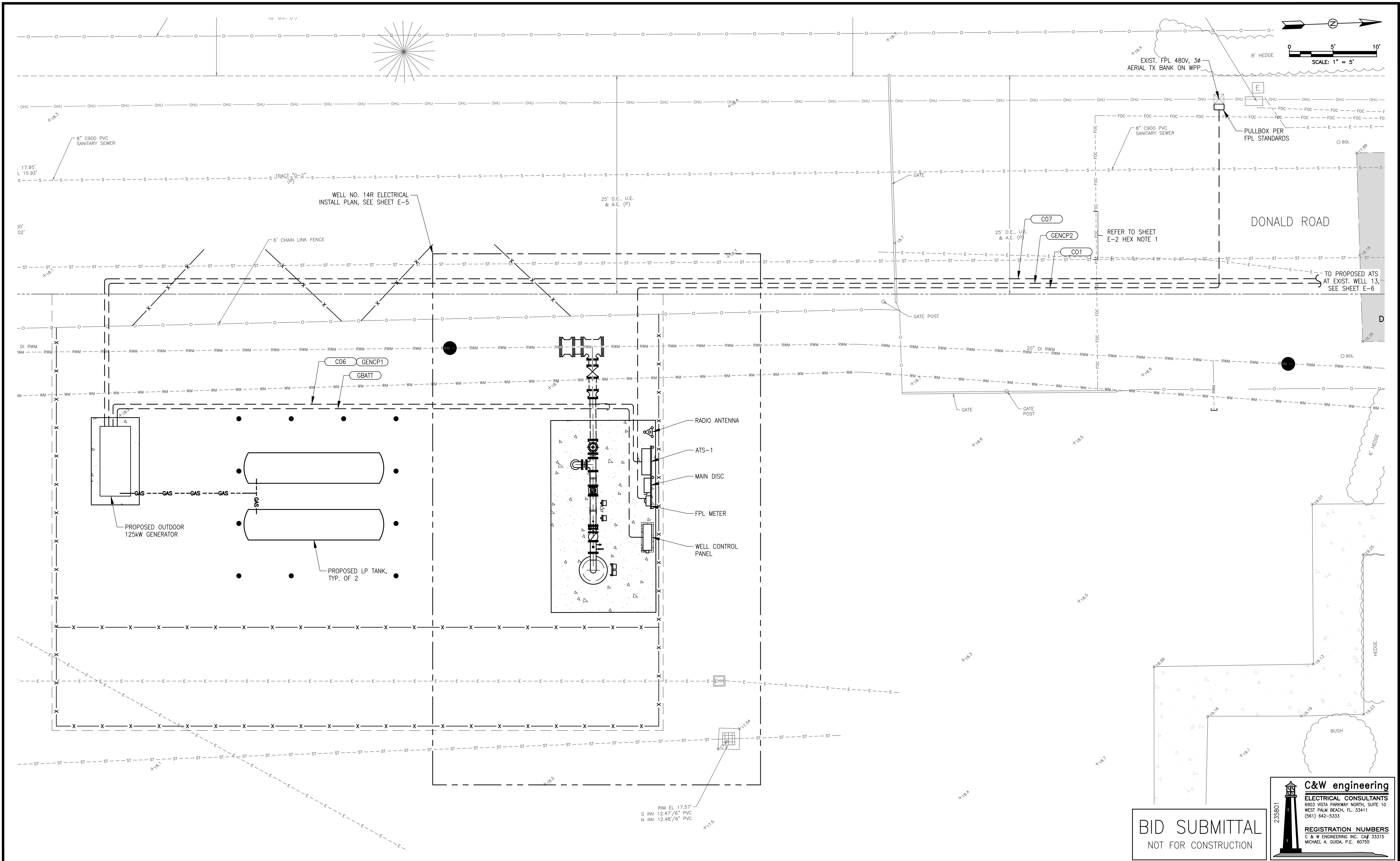
VILLAGE OF PALM SPRINGS
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NO. 14 AND INSTALLATION OF STANDBY GENERATOR

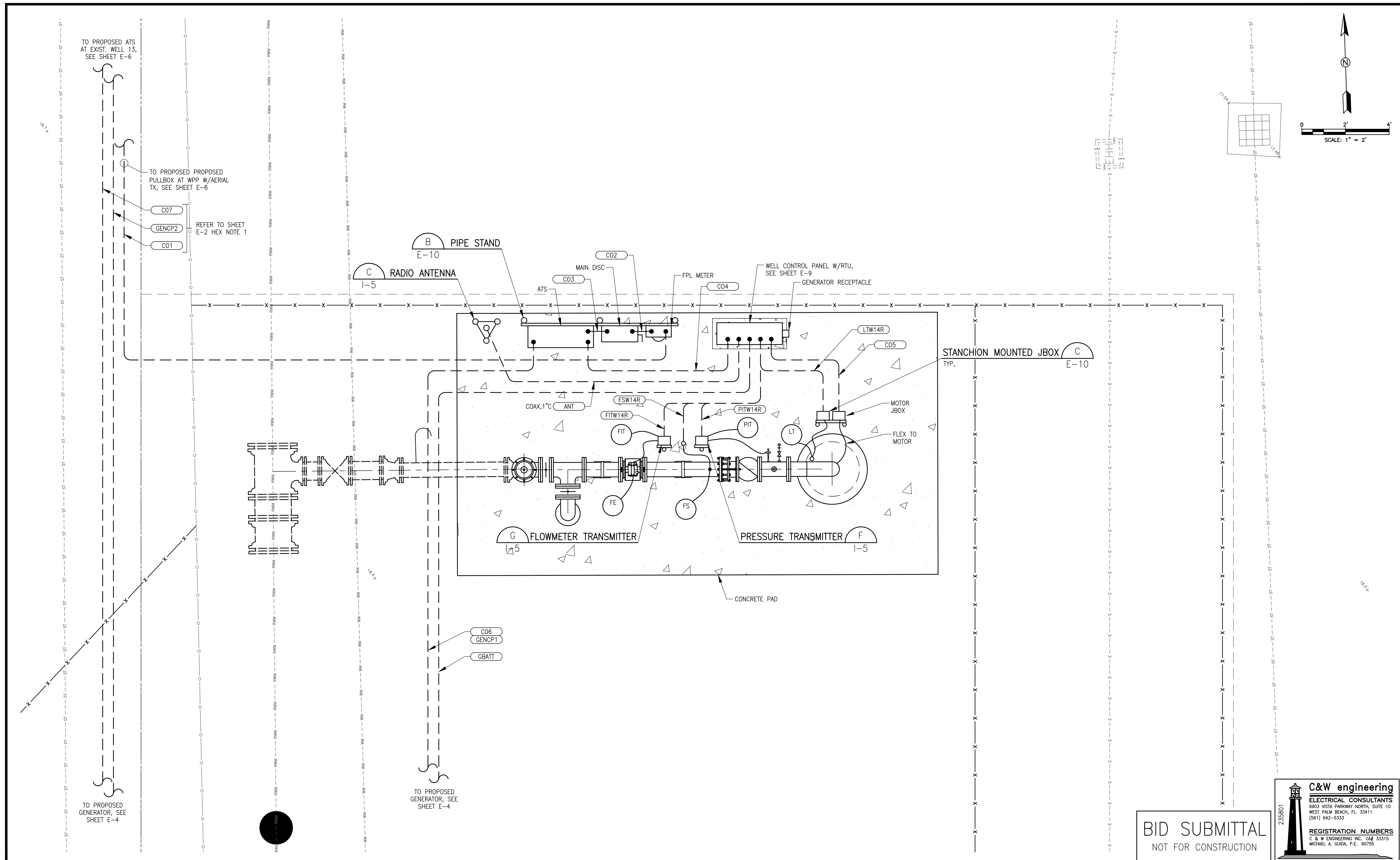
EXISTING WELL NO. 14
ELECTRICAL DEMOLITON PLAN

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0 1
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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

WELL NO. 14R
ELECTRICAL INSTALL PLAN

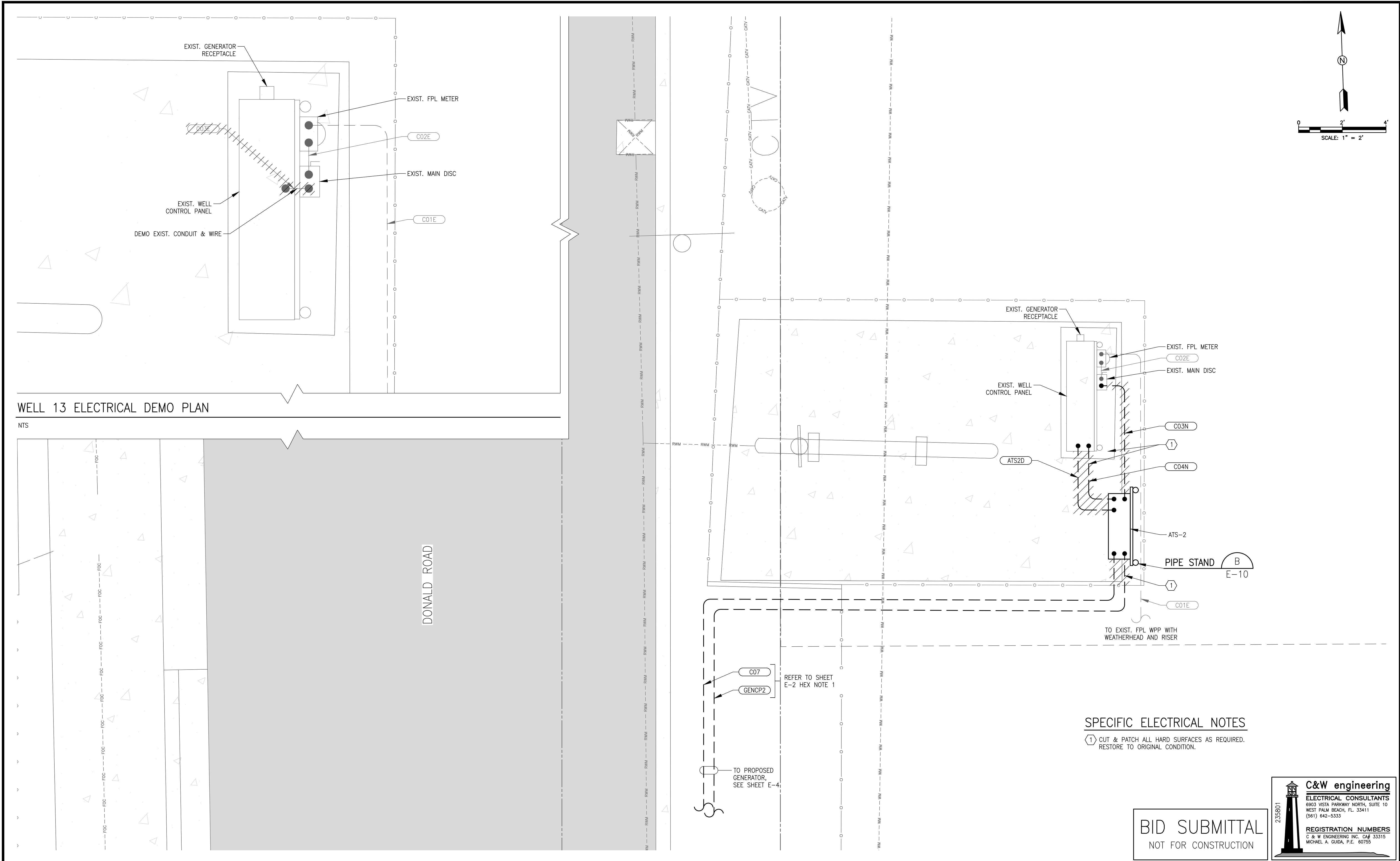
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MICHAEL A. GUIDA, P.E. 60755



WELL 13 ELECTRICAL DEMO PLAN

NTS

SPECIFIC ELECTRICAL NOTES

- ① CUT & PATCH ALL HARD SURFACES AS REQUIRED. RESTORE TO ORIGINAL CONDITION.

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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

EXISTING WELL NO. 13
ELECTRICAL PLAN

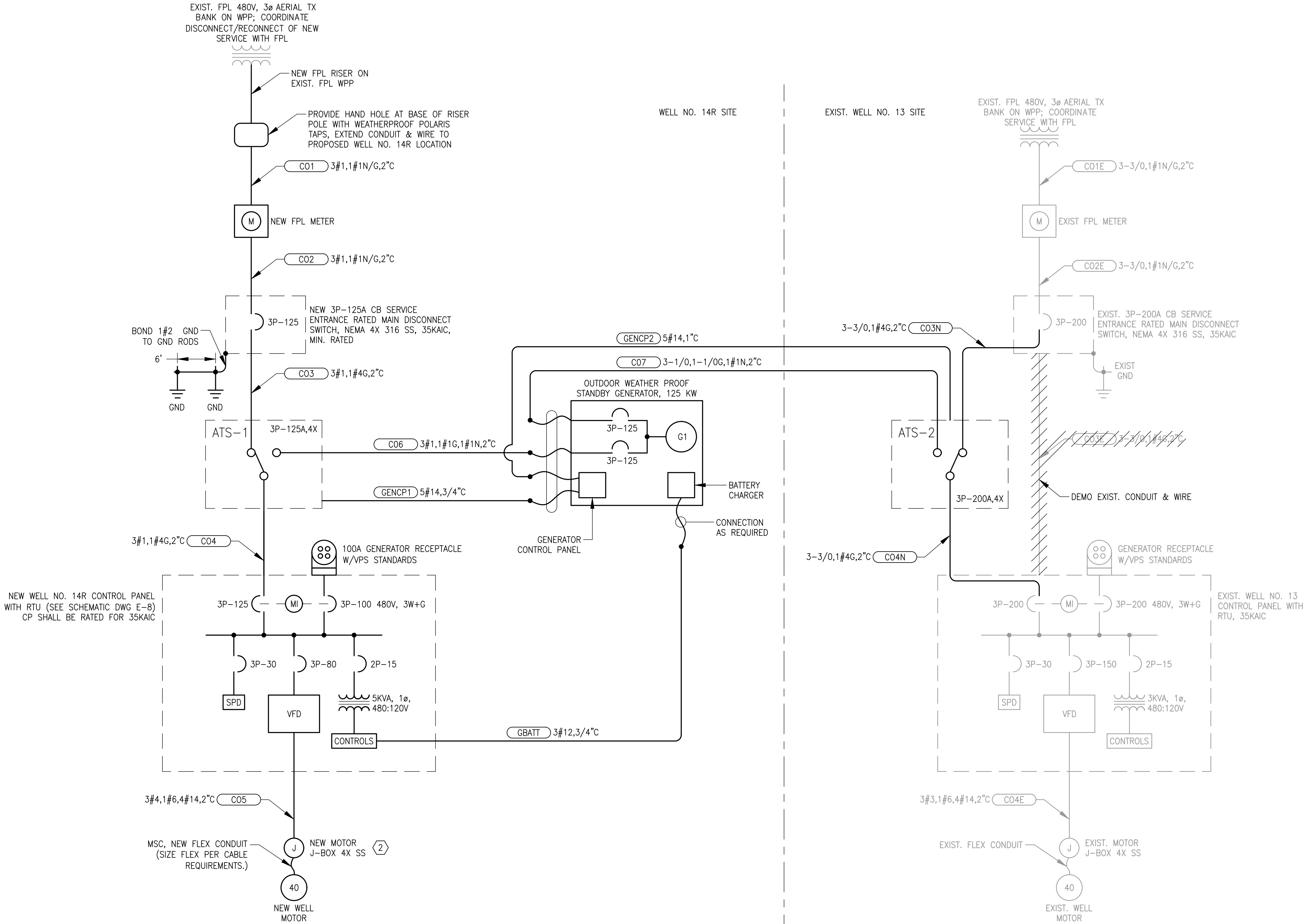
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License No: 60755

E-6

480V 3Ø LOAD CALCULATION	
DESCRIPTION	AMPS
WELL PUMP (40HP) x 125%	65
CONTROLS	10
TOTAL	75
EXISTING 480V 3Ø SERVICE	130A

EXISTING SERVICE VOLTAGE DROP IS LESS THAN 2%
BRANCH CIRCUITS ARE LESS THAN 3% VOLTAGE DROP



WELLS NO. 14R & 13 480V, 3Ø, ELECTRICAL ONELINE DIAGRAM

NTS

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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

ELECTRICAL ONELINE DIAGRAM

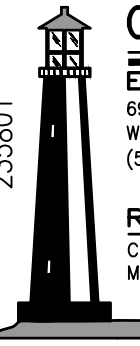
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C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755



MICHAEL A. GUIDA, P.E.

HC=

CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

License No. 60355

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 DIMENSIONS ACCORDINGLY

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 Design By: JLR
 Drawn By: AOD
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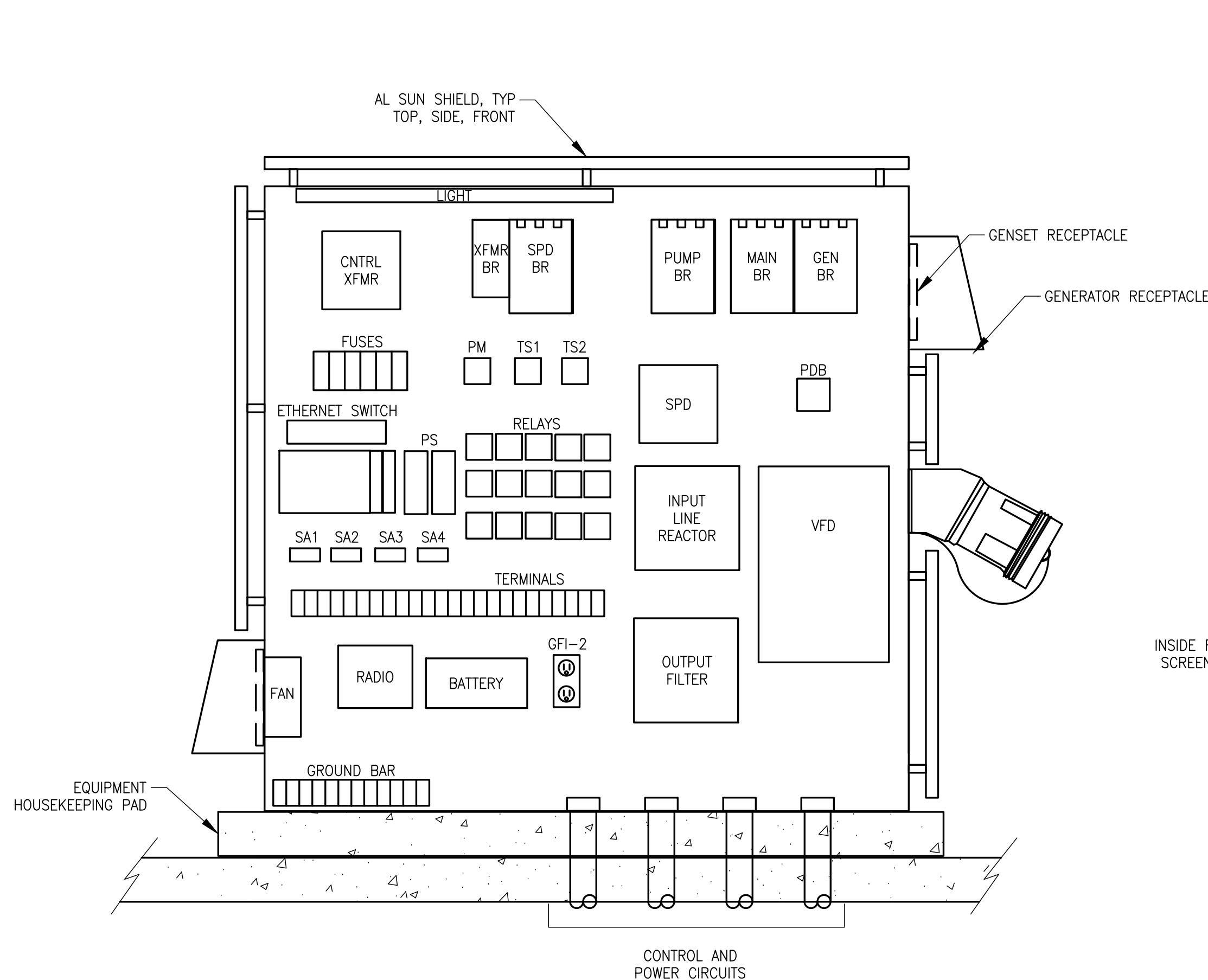
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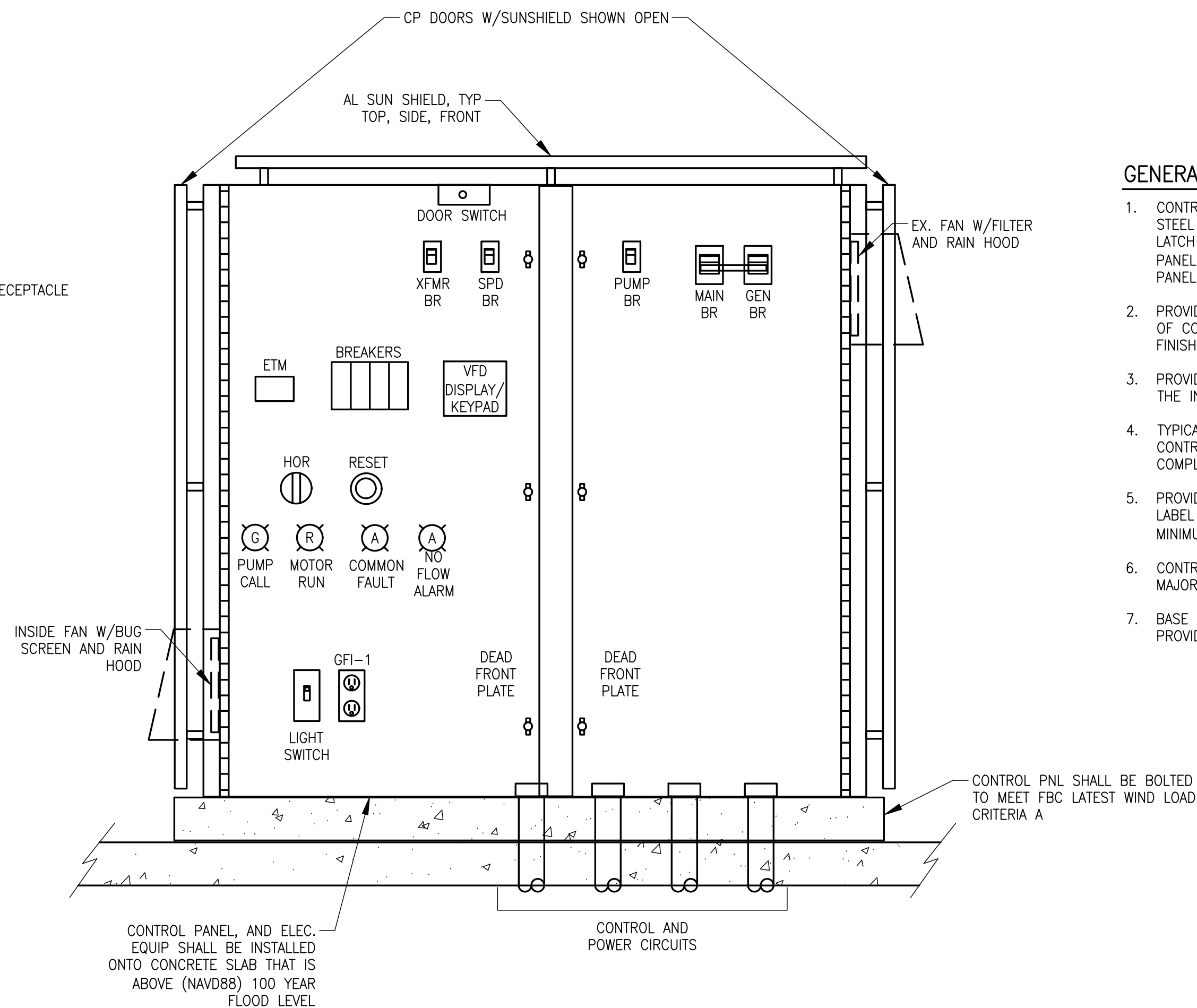
VILLAGE OF PALM SPRINGS REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14 AND INSTALLATION OF STANDBY GENERATOR

CONTROL SCHEMATICS

REV	DATE	REVISIONS	BY	EMERGENCY REVISIONS
Drawing Name: \\10.10.26\CW Dropbox\JOBS\58-HOLTZ CONSULTING\235801 VPS WELL 14 REHAB AND GENSET W E FEEDER FOR NEARBY WELL\DRAWINGS\02 - Electrical Details.dwg Layout Name: SCHEM - Plotted by: Andres Demarchi - Date: 7/26/2024 - 2:46 PM - Holtz Consulting Engineer				



INTERIOR LAYOUT



PANEL DEAD FRONT
LAYOUT WITH OPENED DOORS

GENERAL ELECTRICAL NOTES

- CONTROL PANEL ENCLOSURE SHALL BE NEMA 3R, 304 STAINLESS STEEL PAINTED WHITE ENCLOSURE WITH DRIP SHIELD, 3-POINT LATCH LOCKABLE HANDLE, AND ALUMINUM SUN SHIELDS. CONTROL PANEL MAXIMUM DIMENSION SHALL BE 60"Wx70"x20"D. CONTROL PANEL SHALL HAVE APPROPRIATE UL LABEL.
- PROVIDE ALUMINUM SUN SHIELD ON TOP, FRONT, AND BOTH SIDES OF CONTROL PANEL. SUN SHIELDS TO BE PAINTED THE SAME FINISH AS CONTROL PANEL.
- PROVIDE LAMINATED CONTROL AND POWER WIRING DIAGRAMS ON THE INTERIOR DOOR.
- TYPICAL CONTROL PANEL LAYOUT IS CONCEPTUAL ONLY AND CONTROL PANEL SUPPLIER SHALL ADJUST AS NEEDED FOR A COMPLETE AND FUNCTIONAL CONTROL PANEL.
- PROVIDE ARC FLASH WARNING LABEL ON CONTROL PANEL. THE LABEL SHALL BE LAMINATED DURABLE VINYL AND UV RESISTANT, MINIMUM SIZE 5"x3.5".
- CONTROL PANEL MIDDLE RAIL SHALL NOT BLOCK ACCESS TO ALL MAJOR COMPONENTS WHICH NEED TO MAINTAIN.
- BASE BID IS VFD TO PLC HARDWIRED SIGNALS. ALTERNATE BID PROVIDE ETHERNET COMM. VIA CAT6 CABLE BETWEEN PLC AND VFD.

REV	DATE	REVISIONS	BY

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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

CONTROL PANEL DETAILS

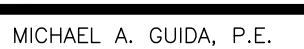
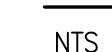
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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

ELECTRICAL DETAILS
SHEET 1

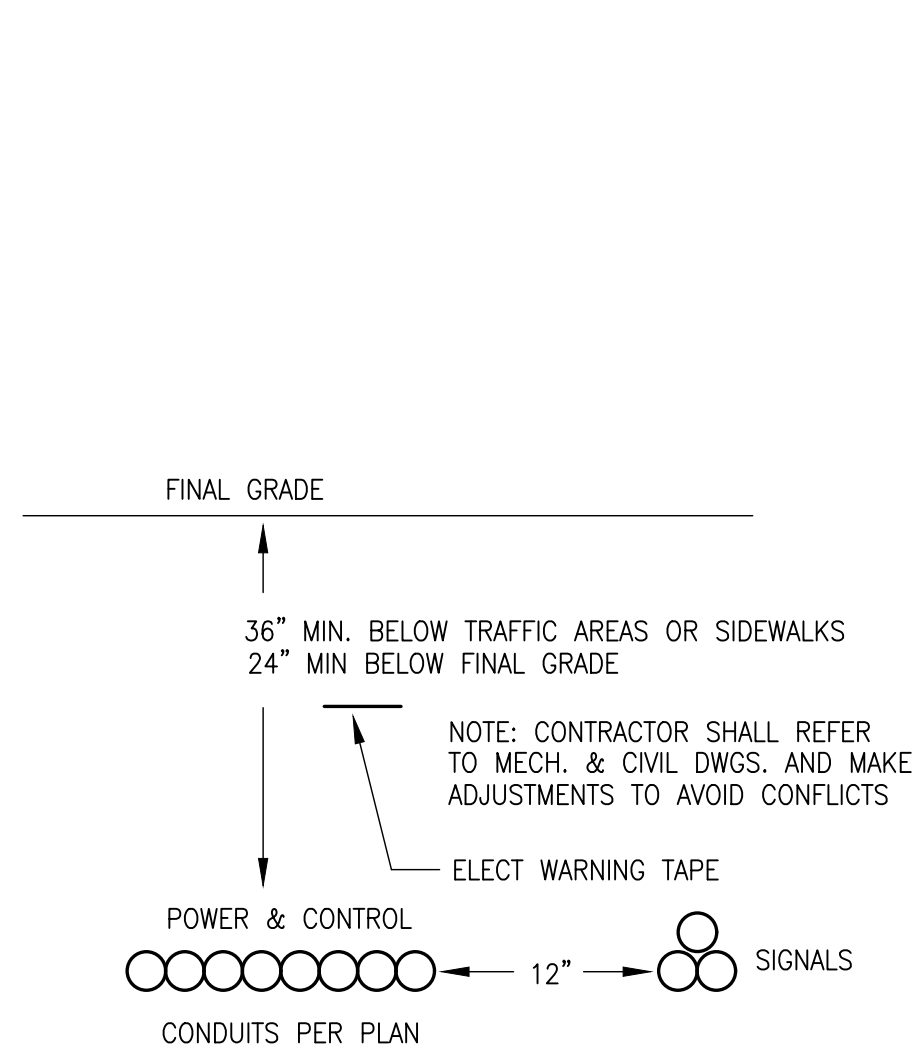
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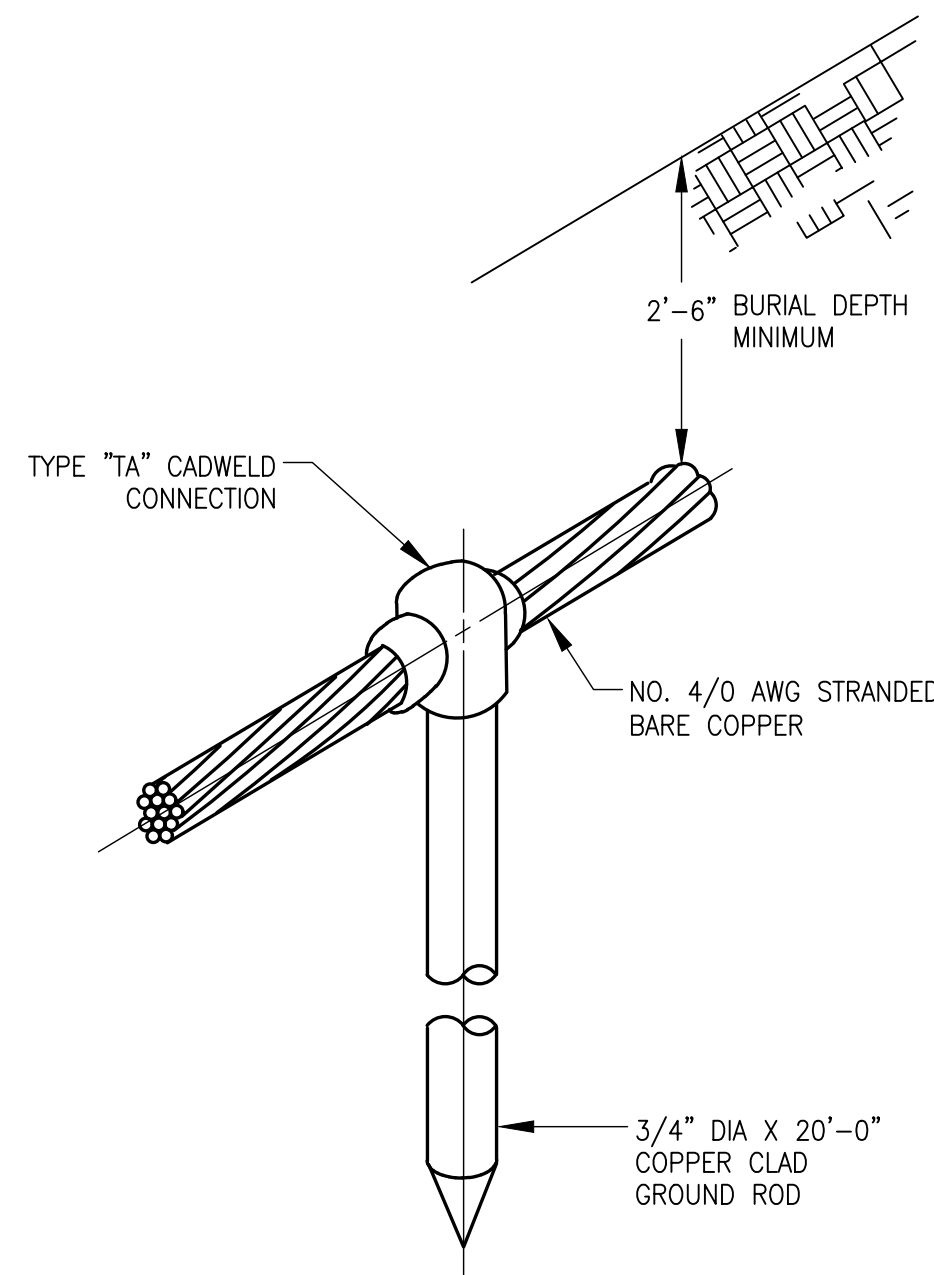
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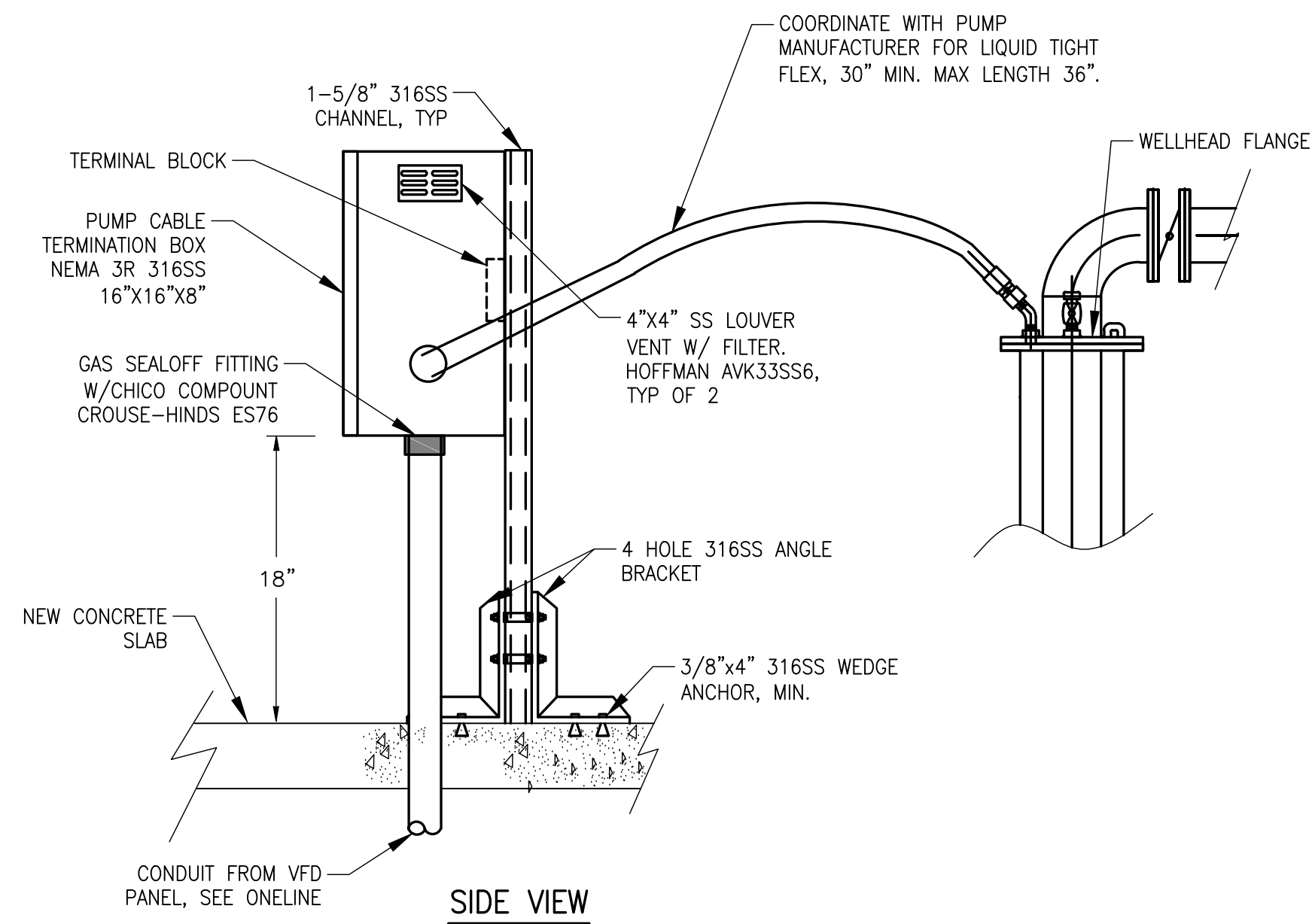
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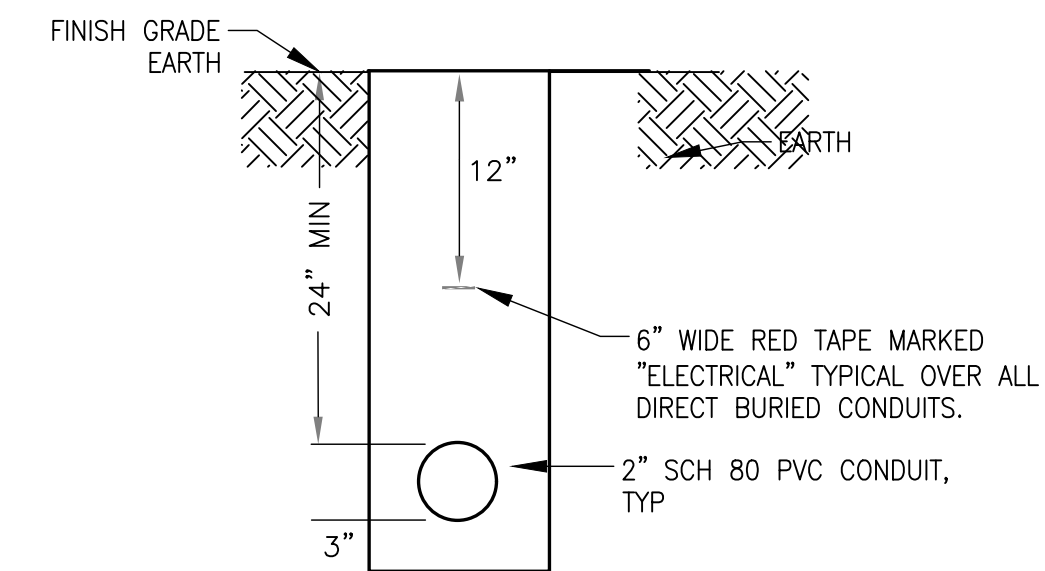
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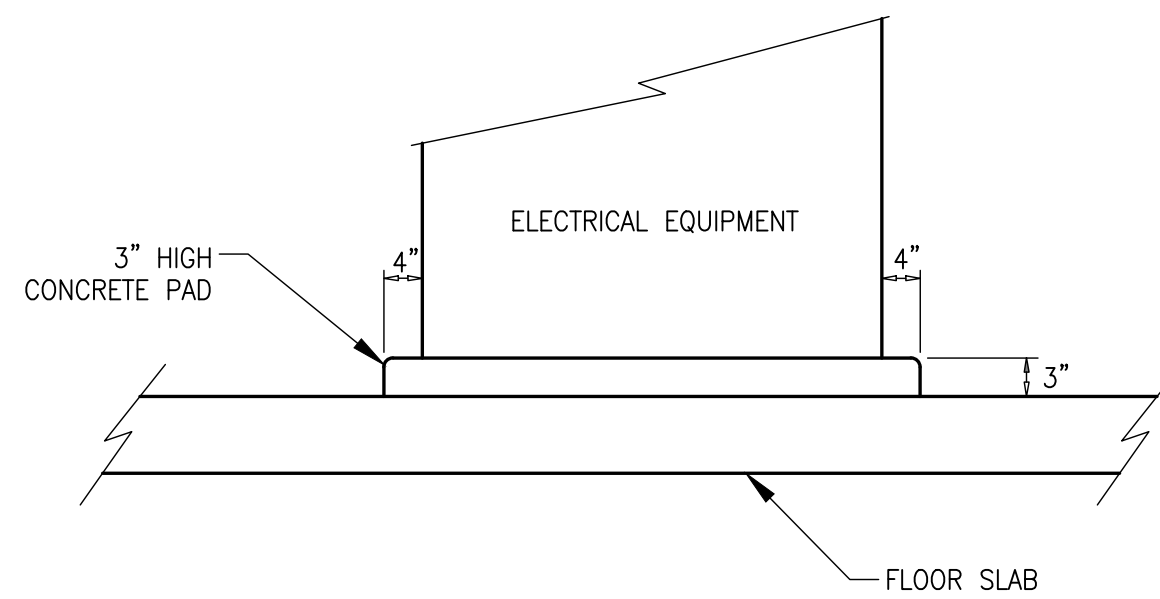
MOTOR JUNCTION BOX DETAIL

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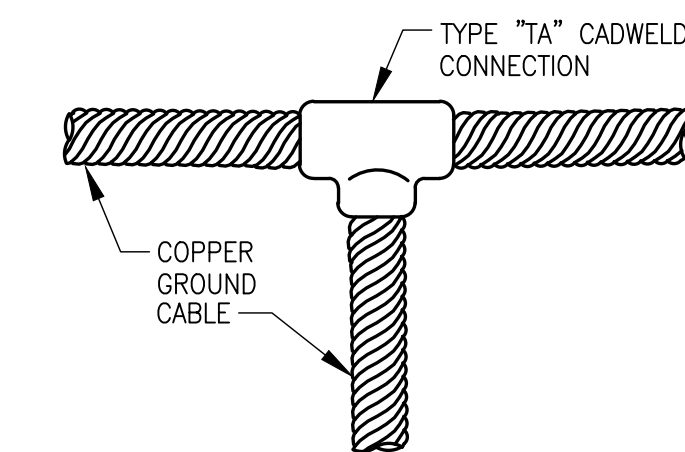
DIRECT BURIED CONDUIT INSTALLATION DETAIL

NTS



EQUIPMENT HOUSE KEEPING PAD

NTS



GROUND CABLE CONNECTION

NTS

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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

ELECTRICAL DETAILS
SHEET 2

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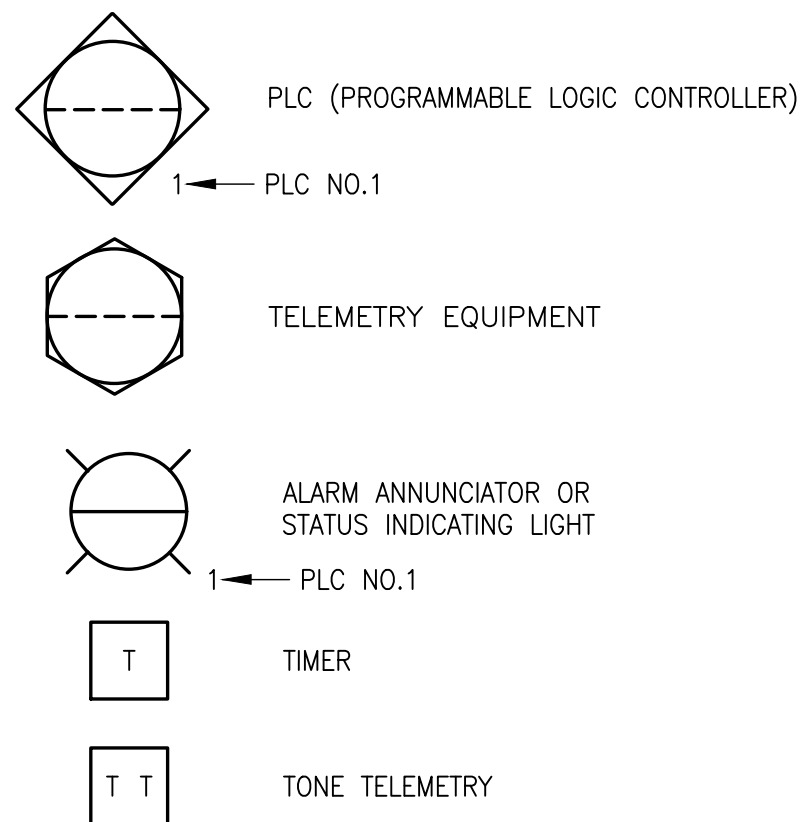
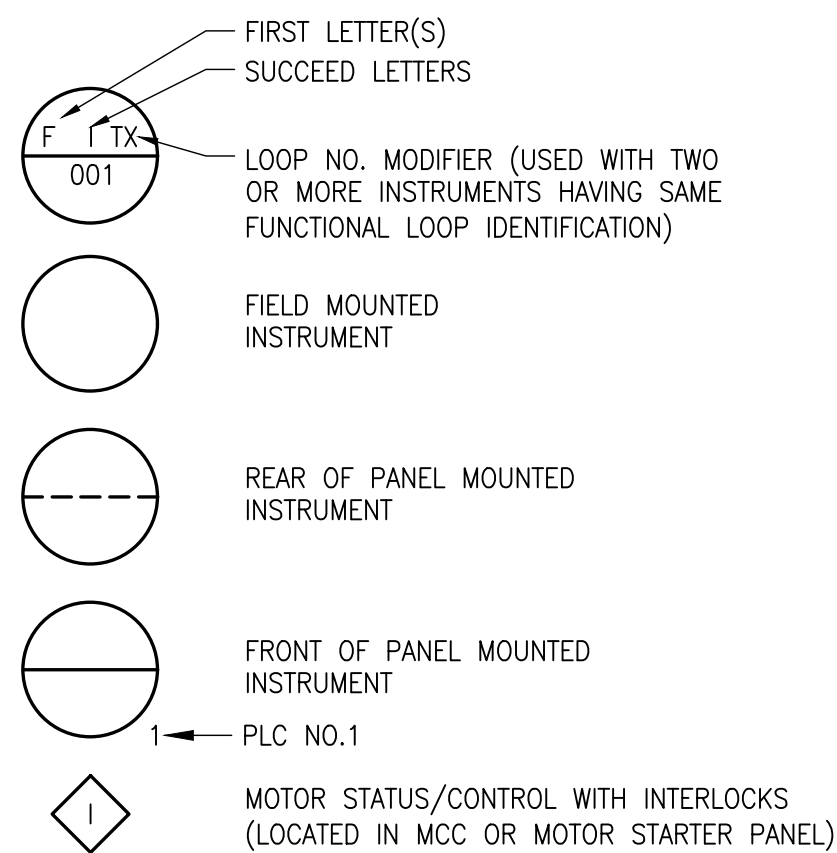
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INSTRUMENT SOCIETY OF AMERICA TABLE

LETTER	FIRST LETTER		SUCCEEDING LETTERS		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS (*)		ALARM		USERS CHOICE (*)
B	BURNER FLAME		USERS CHOICE (*)	USERS CHOICE (*)	
C	CONDUCTIVITY			CONTROL	CLOSE
D	DENSITY (S.G.)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT		
F	FLOW RATE	RATIO			
G	GAUGE		GLASS	GATE	
H	HAND (MANUAL)				HIGH
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME OR SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTION				MIDDLE
N	STROKE		USERS CHOICE (*)	USERS CHOICE (*)	NORMAL
O	LOOP VEH. DETECTOR		ORIFICE		OPEN
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT		INTEGRATE		
R	RATIO		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE (*)		MULTIFUNCTION (*)		
V	VISCOSITY			VALVE	
W	WEIGHT OR FORCE				
X	UNCLASSIFIED (*)		UNCLASSIFIED (*)	UNCLASSIFIED (*)	UNCLASSIFIED (*)
Y	PHOTO CELL		LIGHT SOURCE	RELAY OR COMPUTE (*)	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

(*) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL

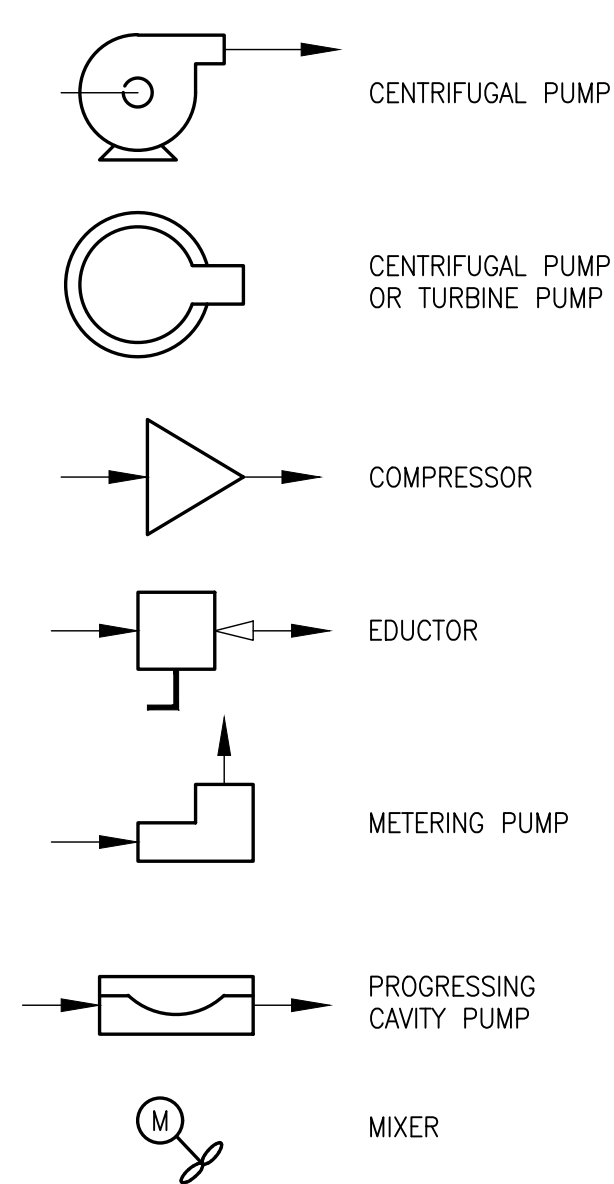
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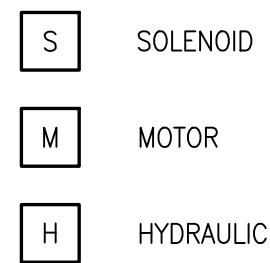
INSTRUMENT ABBREVIATION

ACC	ACCELERATOR
BFP	BELT FILTER PRESS
CL2	CHLORINE
CLW	CLEARWELL
COM	COMMON
COND	CONDUCTIVITY
CP	CONTROL PANEL
DI, AI	DISCRETE INPUT, ANALOG INPUT
DO, AO	DISCRETE OUTPUT, ANALOG OUTPUT
D.O.	DISSOLVED OXYGEN
DR	DISTANCE RELAY
EFFL	EFFLUENT
BFP	BELT FILTER PRESS
EP	ELECTRICAL PANEL
ES	EMERGENCY STOP
ETM	ELAPSED TIME METER
FD	CHEMICAL FEEDER
FIL	FILTER
FS	FLOW SWITCH
HLO	HIGH-LOW-OFF
HFOR	HIGH-LOW-OFF-REMOTE
HOA	HAND-OFF-AUTO
HOTC	HAND-OFF-TIMER-COMPUTER
H/L	HIGH/LOW
HSP	HIGH SERVICE PUMP
INFL	INFLUENT
JP	JOCKEY PUMP
LOS	LOCK-OUT-STOP
LPU	LINE PROTECTION UNIT
MCC	MOTOR CONTROL CENTER
MCP	MAIN CONTROL PANEL
ME	MISCELLANEOUS EQUIPMENT
M.G.	MILLION GALLON
MOV	MOTOR OPERATED VALVE
OCA	OPEN-CLOSE-AUTO
OC	OPEN-CLOSE
OO	ON-OFF
ORP	OXIDATION REDUCTION POTENTIAL
OSC	OPEN-STOP-CLOSE
OSCR	OPEN-STOP-CLOSE-REMOTE
PH	HYDROGEN ION CONCENTRATION
PRES	PRESSURE
RES	RESTORE
RF	RF (ADMITTANCE) LEVEL MONITOR
RIP	REMOTE I/O PANEL
R/L	REMOTE/LOCAL
RSP	REMOTE SETPOINT
SA	SURGE ARRESTER
SEC	SECONDARY
SL	SLAKER
SF	SONIC FLOWMETER
SP	SETPOINT
SS	START/STOP
ST	STEP
STOR	STORAGE
SUS	SUSPENDED SOLIDS
TD	THERMAL DISPERSION
TP	TRANSFER PUMP
TURB	TURBIDITY
VFD	VARIABLE FREQUENCY DRIVE

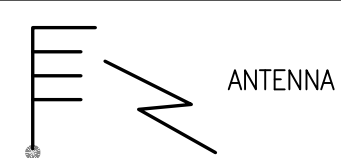
PUMPS & COMPRESSORS



ACTUATORS OR OPERATORS

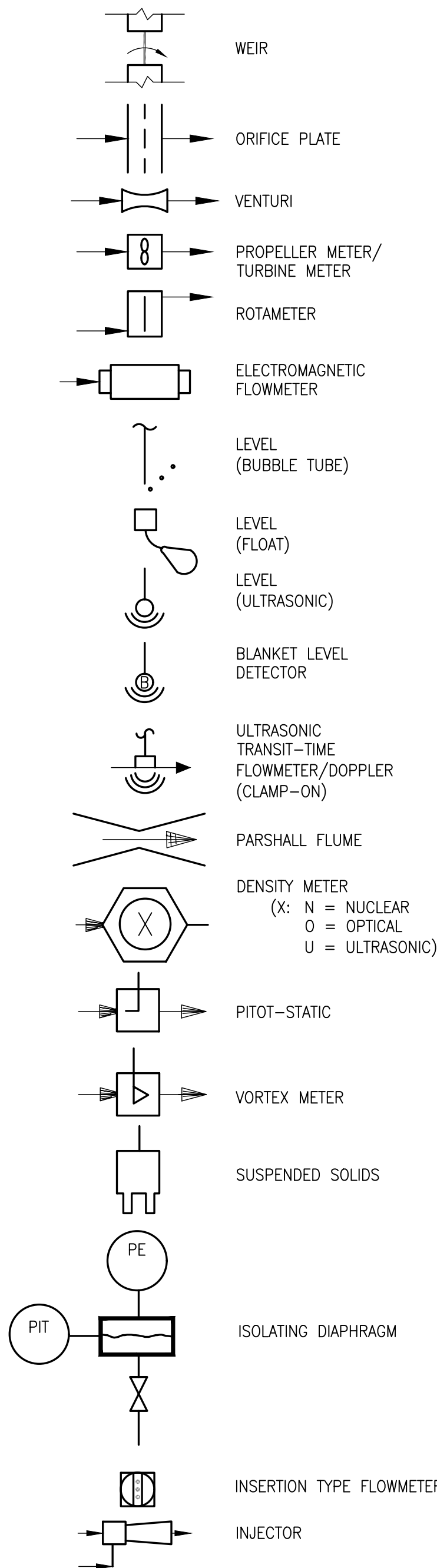


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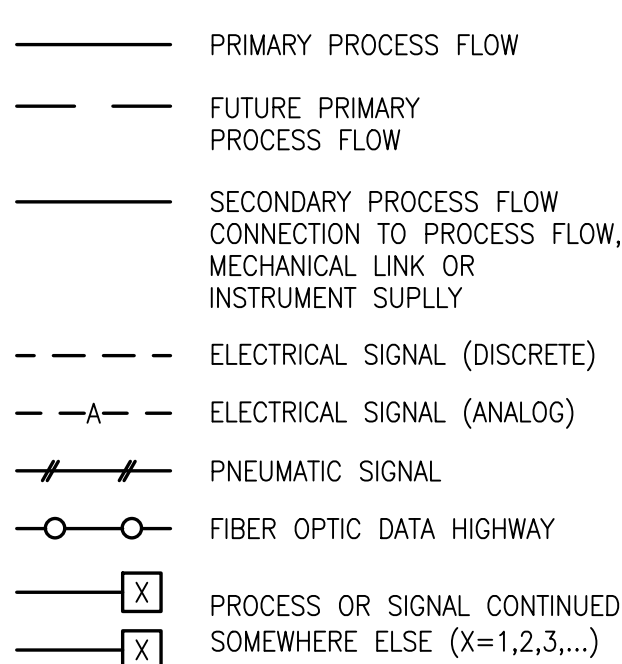


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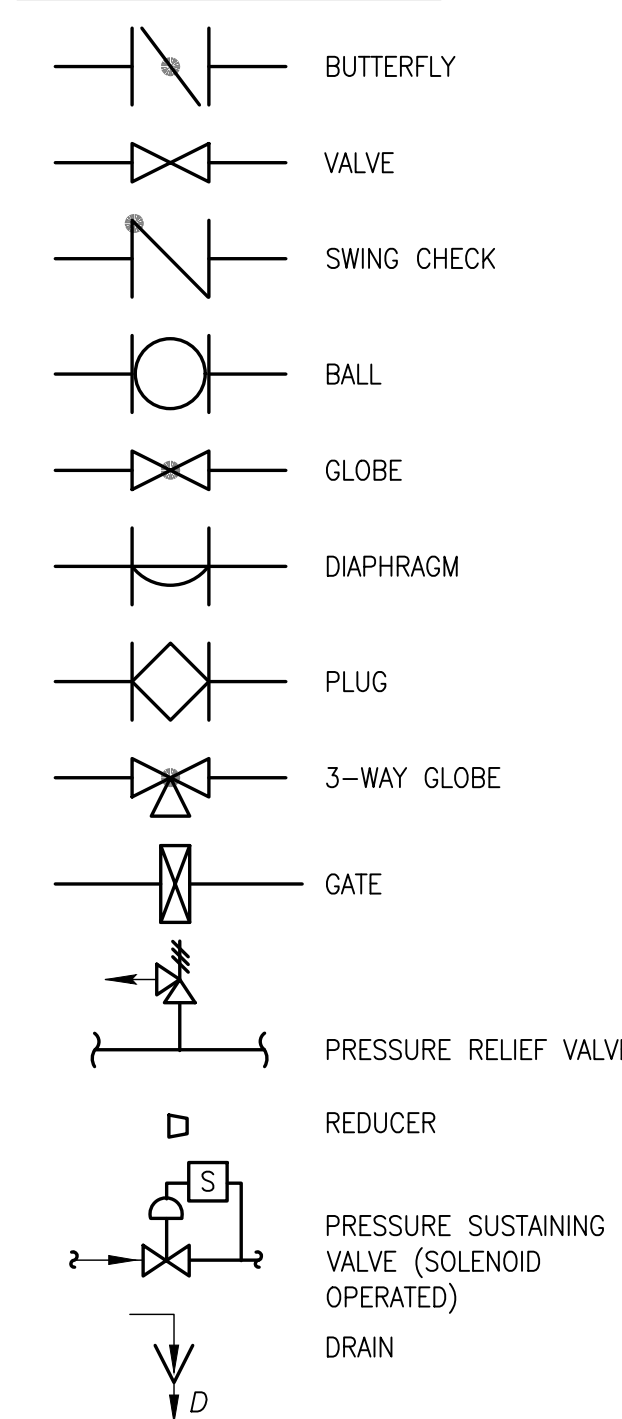
PRIMARY ELEMENTS



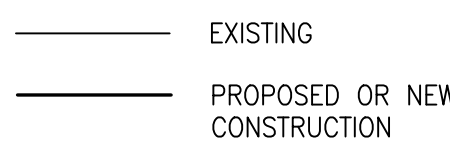
INSTRUMENT LINE SYMBOLS



VALVES & GATES



LEGEND



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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

I&C NOTES & LEGEND

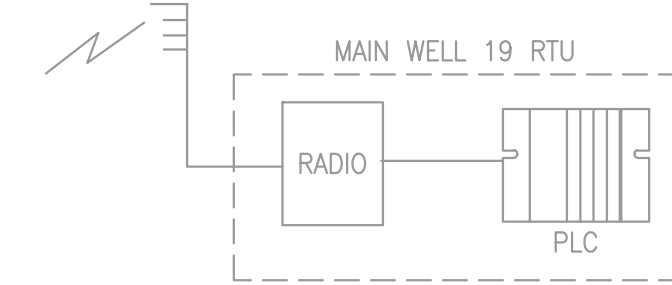
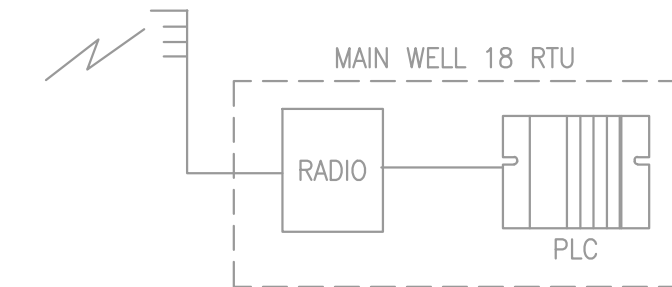
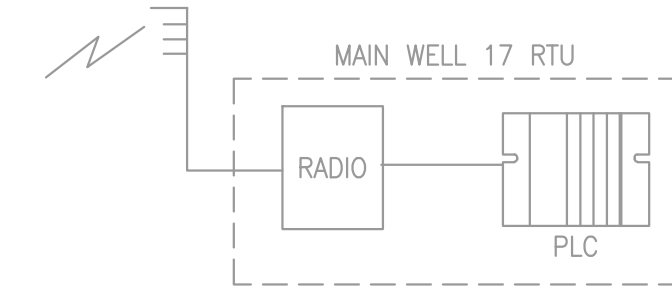
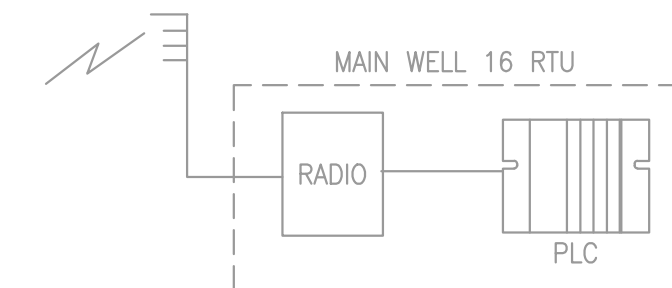
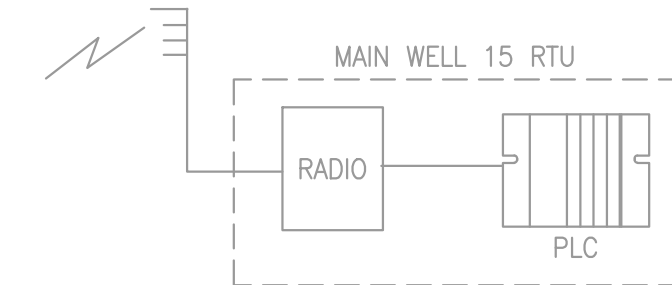
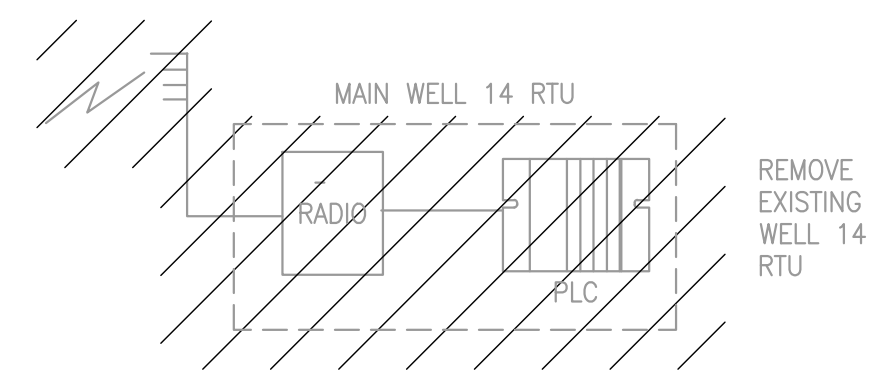
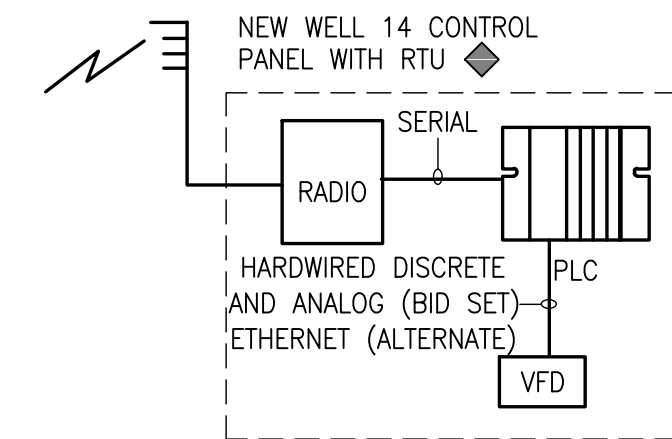
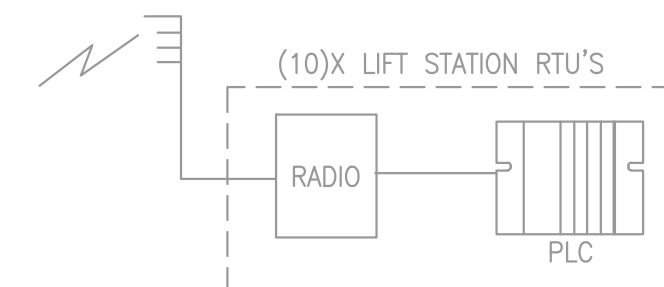
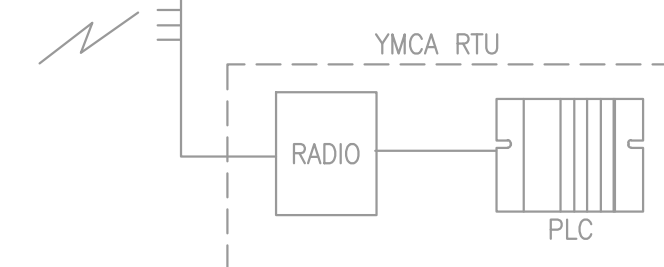
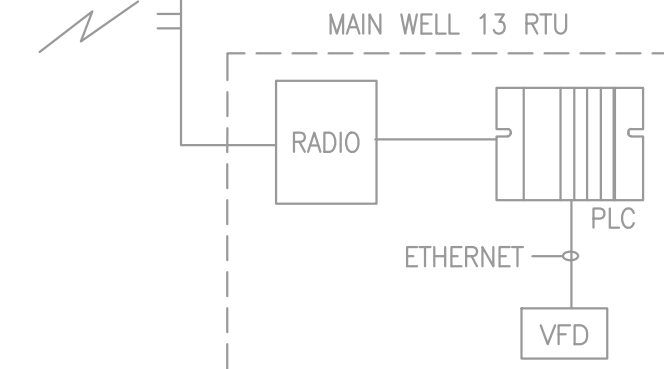
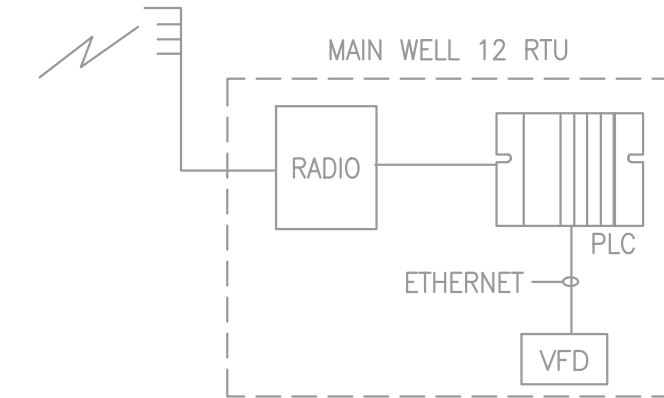
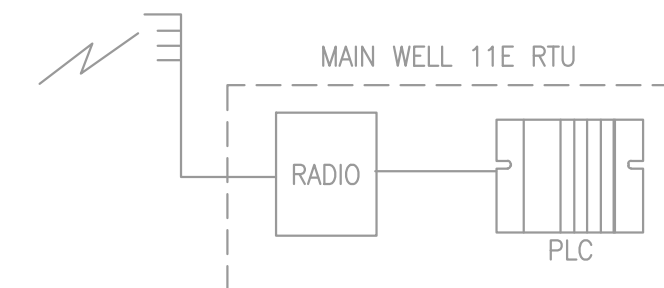
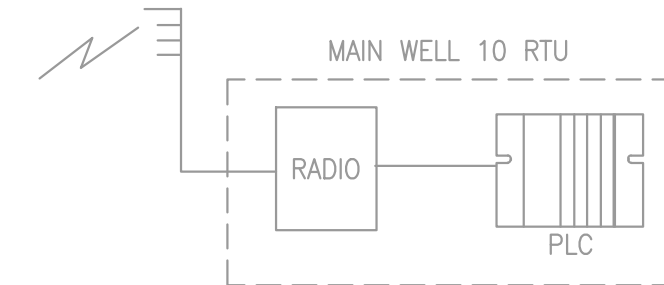
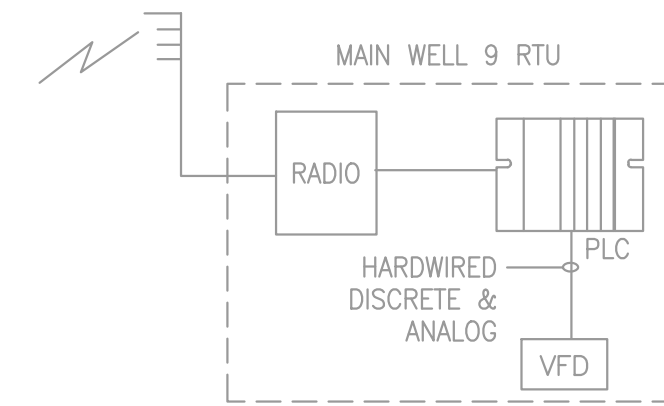
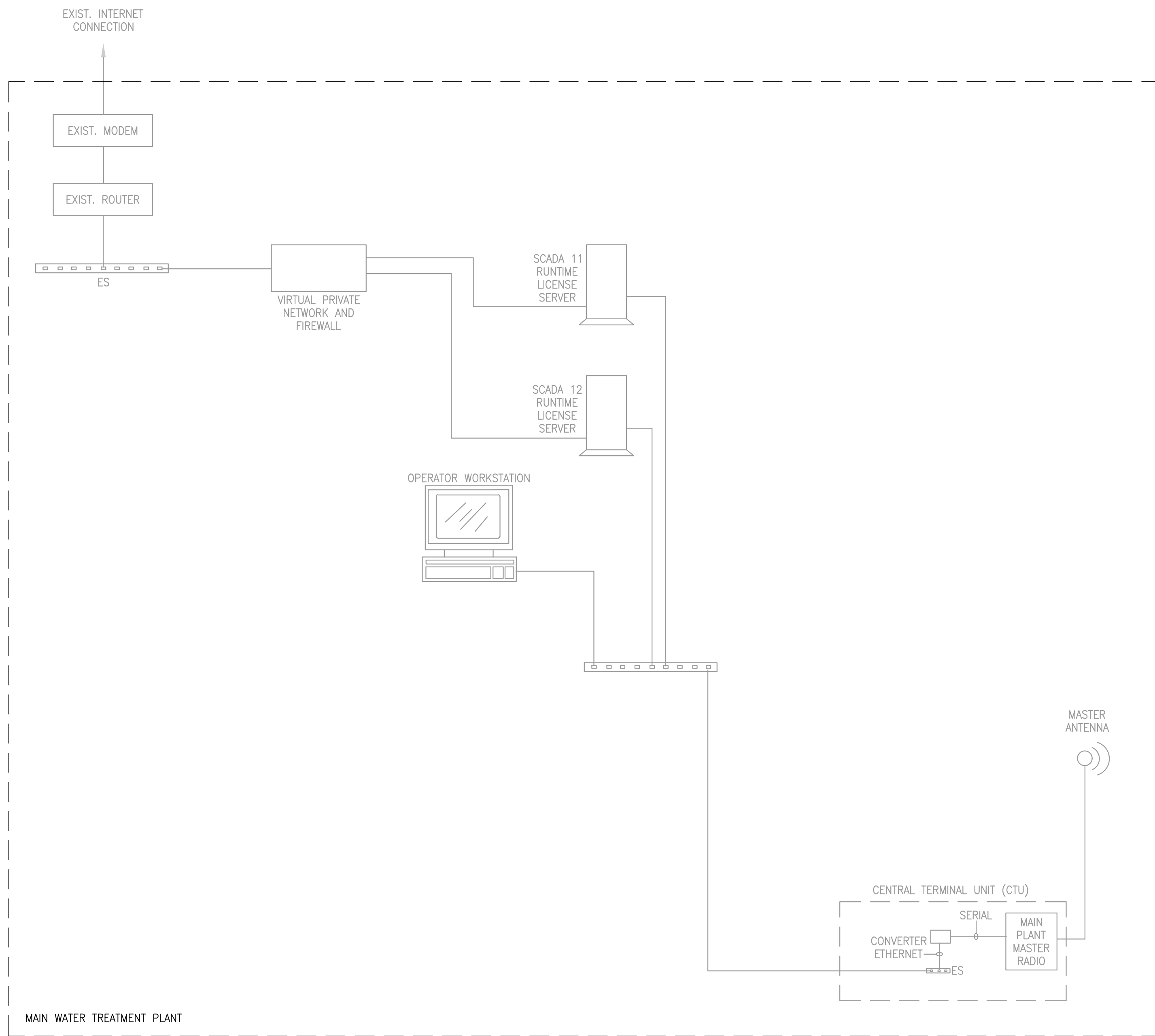
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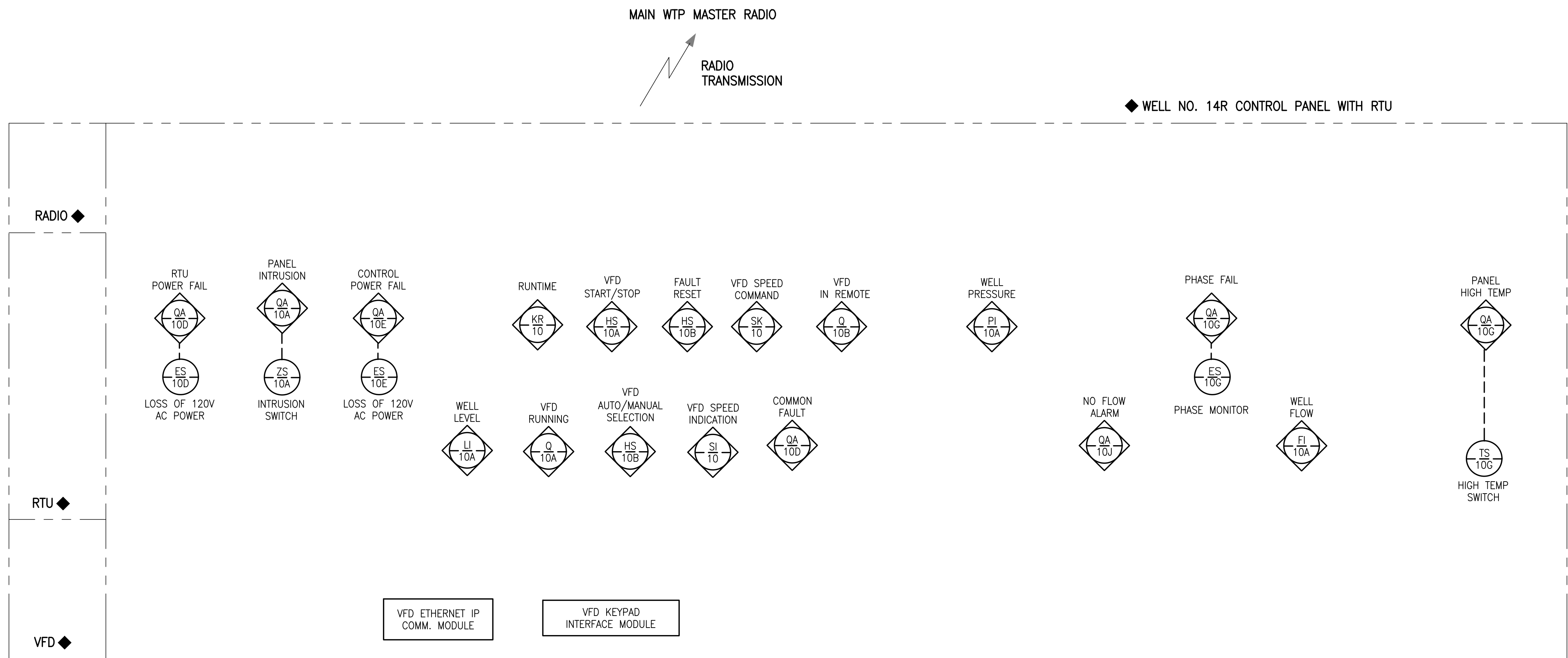
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VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

WELLS COMMUNICATIONS BLOCK DIAGRAM

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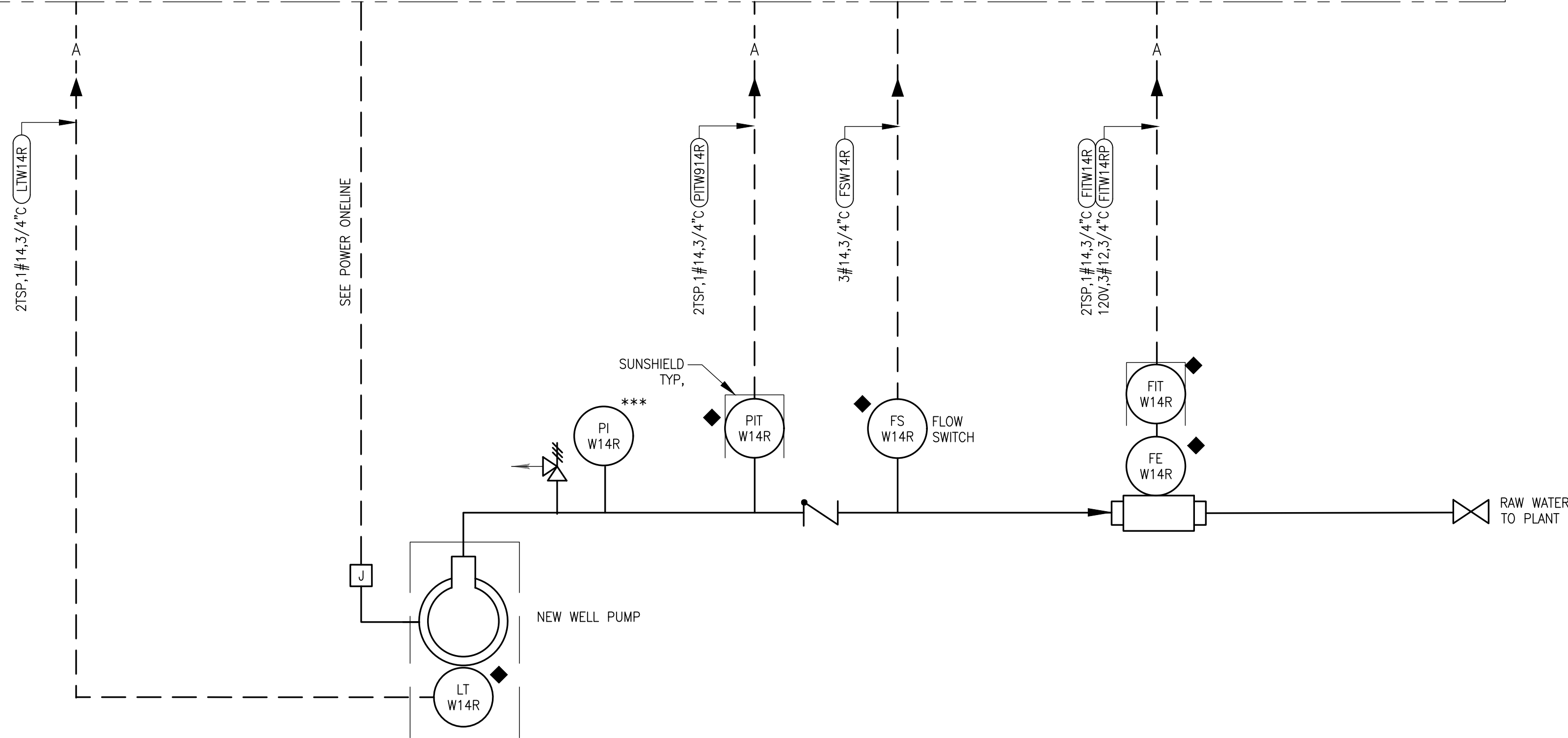
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I/O LISTS FOR WELL NO.14R

RTU POWER FAIL	DIGITAL INPUT I/0
PHASE FAIL	DIGITAL INPUT I/1
WELL PUMP RUNNING	DIGITAL INPUT I/2
INTRUSION	DIGITAL INPUT I/3
COMMON ALARM	DIGITAL INPUT I/4
HOA IN REMOTE	DIGITAL INPUT I/5
SPARE	DIGITAL INPUT I/6
CONTROL POWER FAIL	DIGITAL INPUT I/7
NO FLOW ALARM	DIGITAL INPUT I/8
CONTROL PANEL HI-TEMP	DIGITAL INPUT I/9
WELL PUMP START/STOP	DIGITAL OUTPUT O/0
FAULT RESET	DIGITAL OUTPUT O/1
FLOW LEVEL	ANALOG INPUT IN0
PRESSURE	ANALOG INPUT IN1
VFD SPEED INDICATION	ANALOG INPUT IN3
VFD SPEED COMMAND	ANALOG OUTPUT CH0

UNDER BASE BID PROVIDE 17#14 IN 3/4" C FOR DISCRETE SIGNALS AND 2TSP IN 3/4" C FOR ANALOG SIGNALS BETWEEN VFD AND PLC. PROVIDE ALTERNATE BID FOR ETHERNET COMMUNICATIONS BETWEEN VFD AND PLC I/O.



WELL NO. 14R P&ID

NTS

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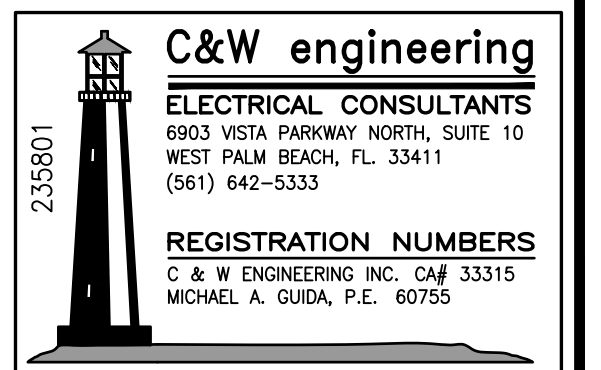
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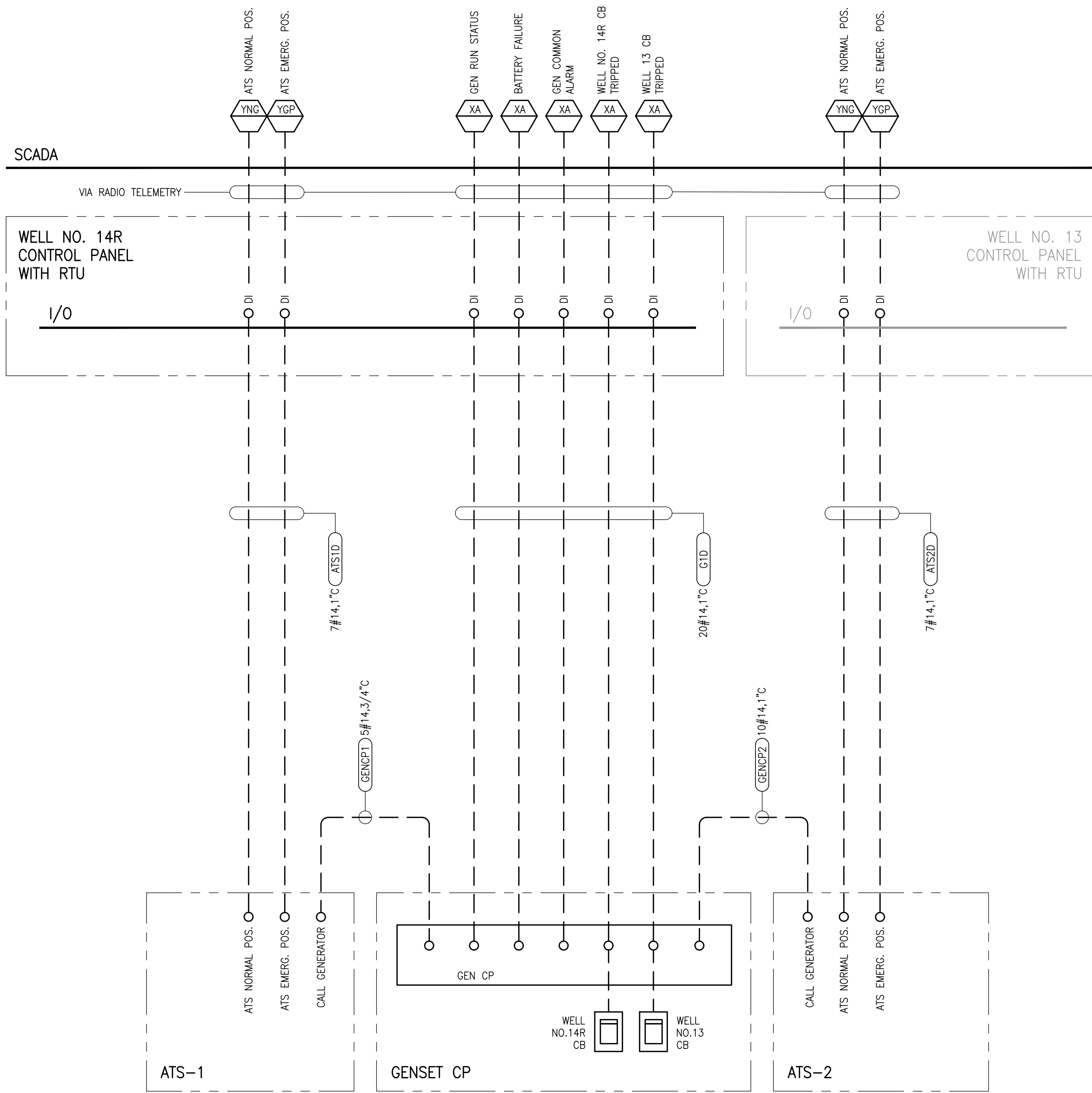
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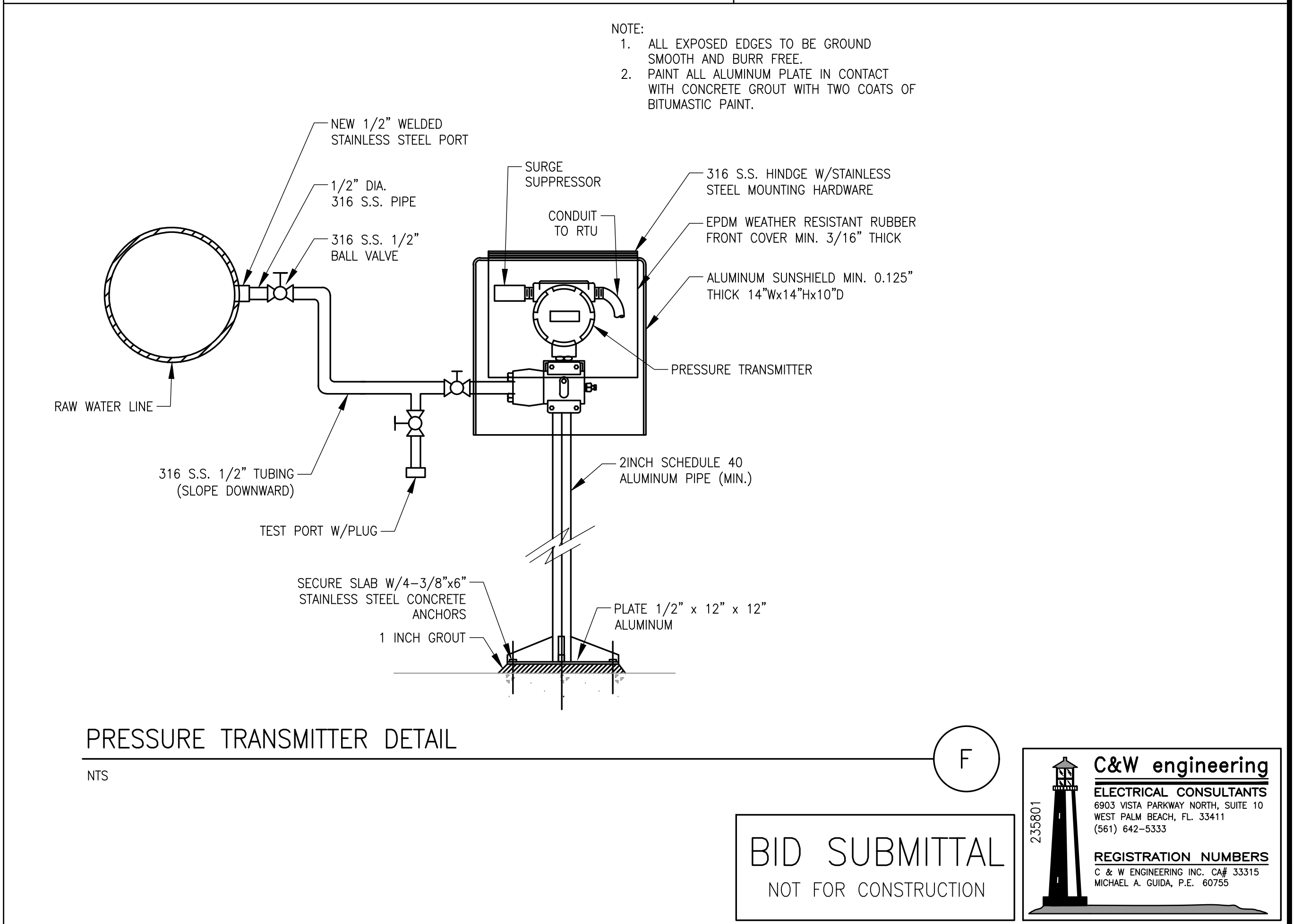
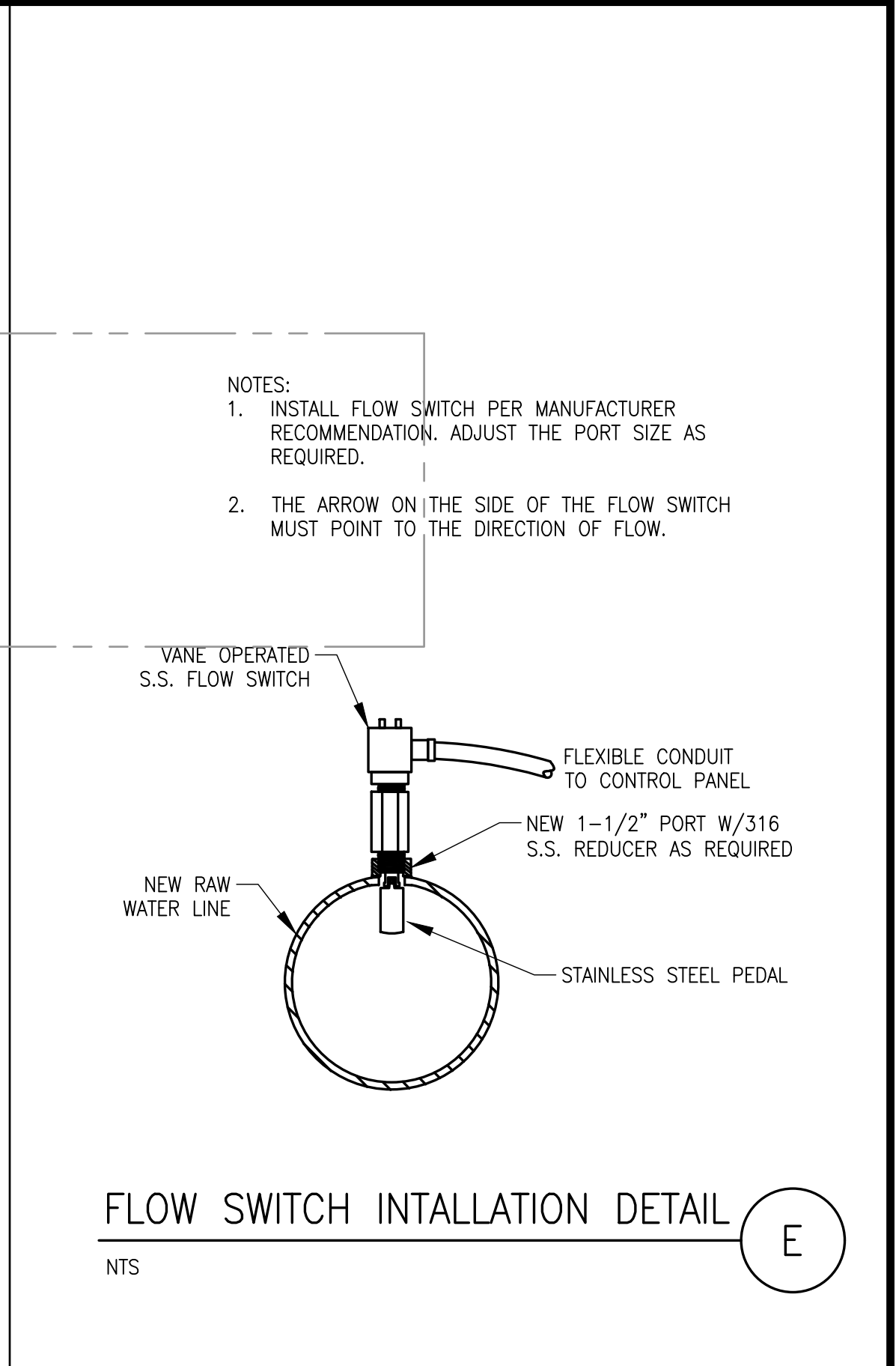
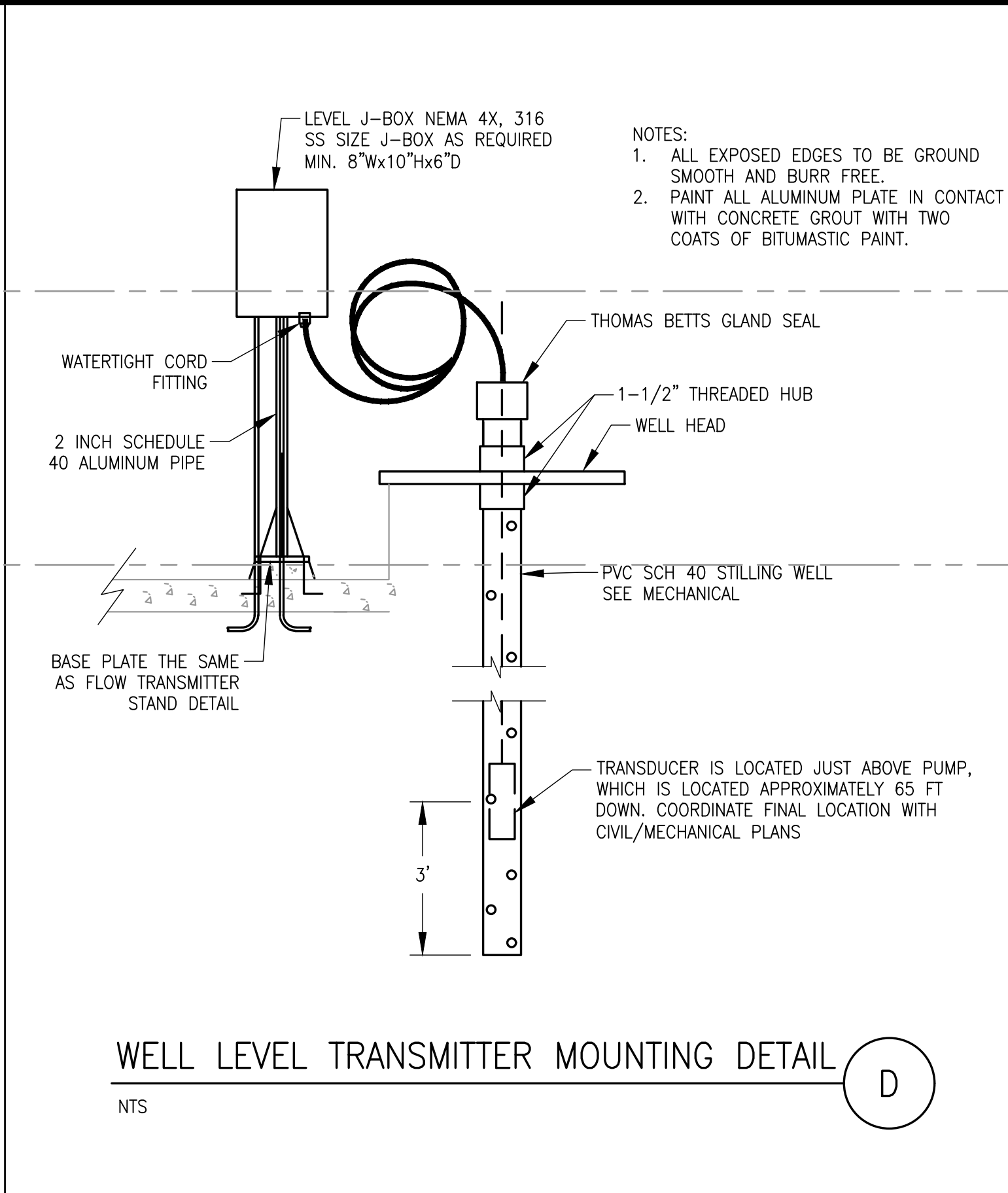
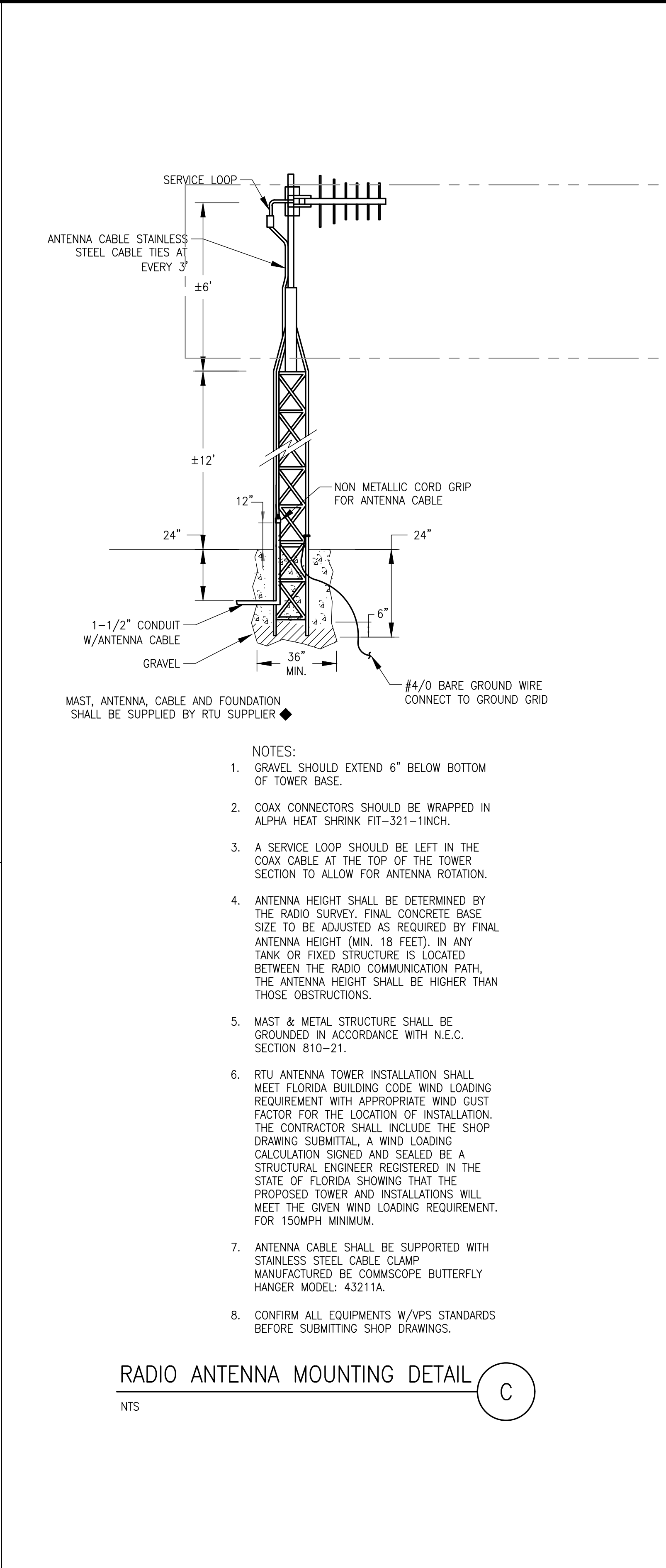
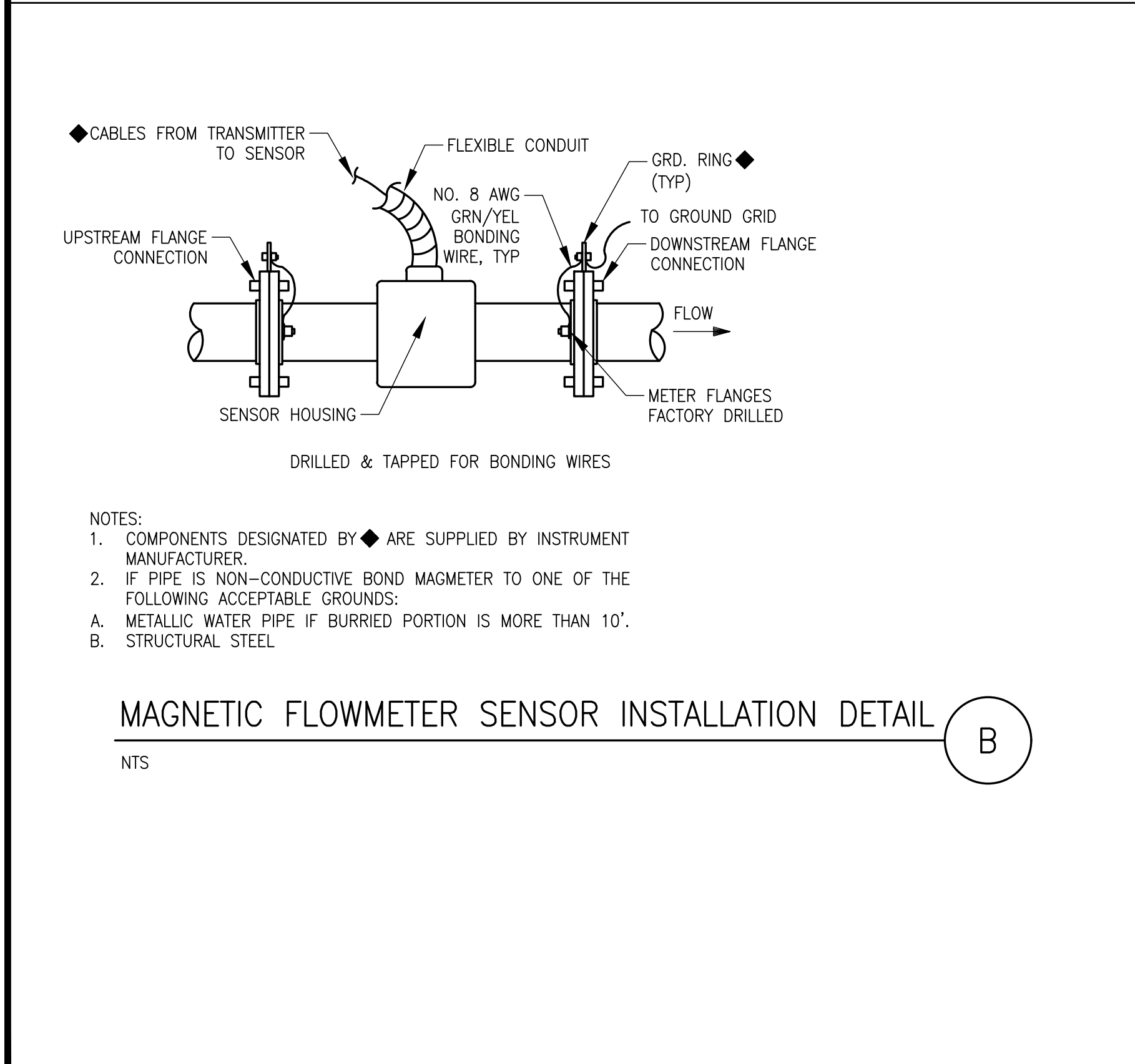
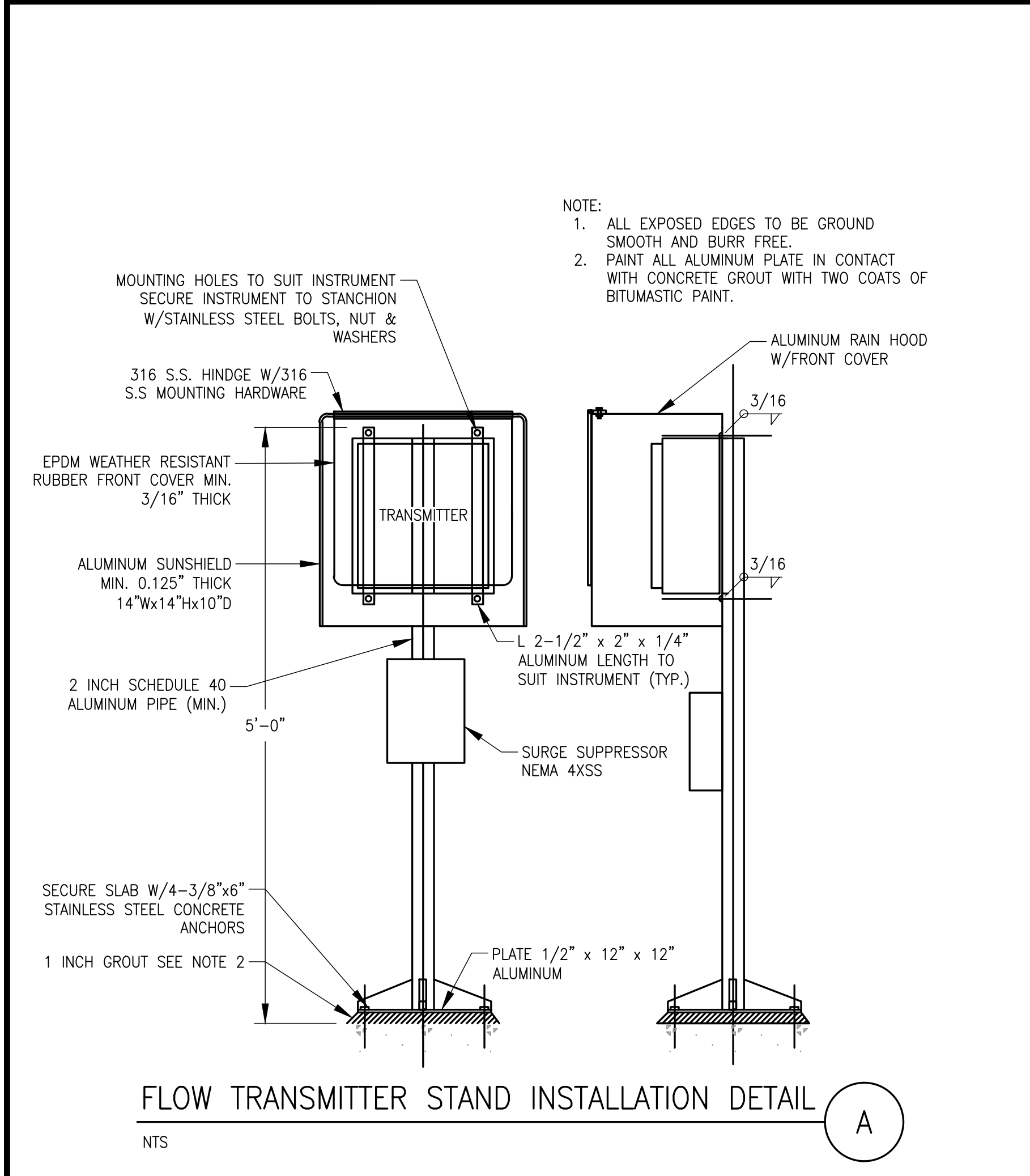
(561) 642-5333

REGISTRATION NUMBERS

C & W ENGINEERING INC. CA# 33315

MICHAEL A. GUIDA, P.E. 60755

BID SUBMITTAL
NOT FOR CONSTRUCTION



REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 07-26-24
Scale: AS NOTED
Design By: JLR
Drawn By: AOD
Check By: MAG

VILLAGE OF PALM SPRINGS
REPLACEMENT OF SURFICIAL AQUIFER WELL
NO. 14 AND INSTALLATION OF STANDBY GENERATOR

INSTRUMENTATION DETAILS

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

MICHAEL A. GUIDA, P.E.
License No: 60755

C&W engineering
ELECTRICAL CONSULTANTS
6903 VISTA PARKWAY NORTH, SUITE 10
WEST PALM BEACH, FL 33411
(561) 642-5333
REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

BID SUBMITTAL
NOT FOR CONSTRUCTION

235801

I-5

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Village of Palm Springs Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator – Bid Form

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
1	GENERAL CONDITIONS, BONDS, AND INDEMNIFICATION	1	LS	79,187	79,187
2	MOBILIZATION/DEMOBILIZATION	1	LS	79,187	79,187
3	PULL EXISTING PUMP, MOTOR, WELLHEAD, APPURTENANCES	1	LS	20,000	20,000
4	PLUG AND ABANDON EXISTING WELL AND WELLHEAD/SITWORK DEMOLITION	1	LS	50,000	50,000
5	DRILL NOMINAL 6-INCH DIAMETER PROFILE WELL TO 250 FEET; PERFORM GEOPHYSICAL LOGGING, PLUG AND ABANDON	1	LS	25,000	25,000
6	FURNISH, INSTALL, AND GROUT 30-INCH DIAMETER STEEL SURFACE CASING TO 40 FT	40	FT	1,750	70,000
7	DRILL A NOMINAL 28-INCH DIAMETER BOREHOLE USING MUD ROTARY METHOD	80	FT	1000	80,000
8	PERFORM GEOPHYSICAL LOGGING FOR CASING INSTALLATIONS	2	EA	20,000	40,000
9	FURNISH AND INSTALL 24-INCH DIAMETER SCH. 40 PVC CASING	120	FT	1,100	132,000
10	CEMENT GROUT 24-INCH DIAMETER SCH. 40 PVC CASING IN PLACE	178	94 LB SKS	30	5,340
11	DRILL A NOMINAL 22-INCH DIAMETER BOREHOLE USING REVERSE AIR METHOD	80	FT	200	16,000
12	FURNISH AND INSTALL 16-INCH DIAMETER 316 STAINLESS STEEL WELL SCREEN	80	FT	500	40,000
13	FURNISH AND INSTALL 16-INCH DIAMETER SDR-17 JOHNSON WELL RISER CASING	120	FT	100	12,000
14	FURNISH AND INSTALL WELL GRAVEL PACK	176	CF	50	8,800
15	PERFORM AIRLIFT WELL DEVELOPMENT	50	HR	350	17,500
16	OPTIONAL: WELL ACIDIZATION MOBILIZATION	1	LS	20,000	20,000
17	OPTIONAL: WELL ACIDIZATION TREATMENT W/ 32% HCl	1,800	GAL	7	12,600
18	PERFORM JETTING WITH SIMULTANEOUS AIRLIFT WELL DEVELOPMENT AND CLEANOUT OF BOREHOLE	50	HR	400	20,000
19	PERFORM PUMP DEVELOPMENT	80	HR	300	24,000
20	CONDUCT STEP-RATE PUMP TEST	8	HR	500	4,000
21	COMPLETE WELL VIDEO LOGGING	1	LS	10,000	10,000

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
22	WELL DISINFECTION AND SAMPLING	1	LS	10,000	10,000
23	WATER QUALITY SAMPLING AND BACTERIOLOGICAL SAMPLING	1	LS	15,000	15,000
24	FORMATION WATER DISPOSAL SYSTEM	1	LS	10,000	10,000
25	FURNISH AND INSTALL WELLHEAD AND RAW WATER MAIN	1	LS	116,000	116,000
26	FURNISH AND INSTALL WELL PUMP, MOTOR, AND PIPING	1	LS	70,000	70,000
27	SITework (INCLUDING PERIMETER FENCING AND RESTORATION)	1	LS	100,000	100,000
28	FURNISH & INSTALL 20" LINE STOP	2	EA	30,000	60,000
29	FURNISH AND INSTALL UNDERGROUND LP STORAGE TANKS	1	LS	38,500	38,500
30	FURNISH AND INSTALL GENERATOR AND ATS EQUIPMENT	1	LS	150,000	150,000
31	ELECTRICAL WORK (INCLUDING INSTRUMENTATION AND CONTROL PANELS AND CONNECTION TO EXIST. WELL NO. 13, EXCLUDING GENERATOR AND ATS EQUIP.)	1	LS	352,000	352,000
32	ALTERNATE BID ITEM – ALTERNATE ELECTRICAL CONSTRUCTION AS DEFINED IN SECTION 16000	1	LS	5,000	5,000
33	OWNER'S ALLOWANCE	1	CI	\$50,000	\$50,000

**Total of All Unit Price Bid Item Nos. 1 thru 31 and Bid Item No. 33
(Excluding Alternate Bid Item No. 32)**

\$ 1,742,114.00

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

BIDDER shall note that this project includes an alternate bid item, Item No. 32 for which BIDDER shall provide a lump sum price to perform work described in the Technical Specifications if OWNER elects to proceed with construction/work as described therein. Identification of the Low Bidder shall be based upon the sum total of Bid Item Nos. 1 through 31 and Bid Item No. 33, excluding Bid Item No. 32. If OWNER elects to proceed with **forego** construction/work as defined under Alternate Bid Item No. 32, Bid Item No. **32** ~~31~~ shall not be required and shall be removed from the Contract via formal change order. See *Section 01200 – Measurement and Payment* of the Technical Specifications for additional details.

Total of Lump Sum and Unit Price Bids = Total Bid Price \$ 1,742,114.00

ONE MILLION SEVEN HUNDRED FORTY-TWO THOUSAND ONE HUNDRED FOURTEEN DOLLARS

**VILLAGE OF PALM SPRINGS
PALM SPRINGS, FL
ITB NO. 2024B - 015
REPLACEMENT OF SURFICIAL AQUIFER WELL NO. 14**

ADVERTISEMENT FOR BIDS

Sealed Bids for the construction of the **Replacement of Surficial Aquifer Well No. 14** must be received by the **Village of Palm Springs**, at the office of the **Palm Springs Village Clerk via online submission on Demandstar.com**, until **2:00 PM** local time on **August 22, 2024**. At **3:00 PM** all Bids received will be publicly opened and read. The Project consists of plugging/abandoning one (1) existing production well, Well No. 14, and constructing a replacement surficial aquifer production well, Well No. 14R, including drilling, setting of casings and/or well screen, grouting, testing, well logging, video logging, acidization (optional), pump testing, formation water disposal system (including temporary piping and pumps), well facility disinfection, fencing, clearing and restoration of well site, new pump and motor including column pipe and appurtenances, well head piping and appurtenances, flow meter, raw water main piping / tie-in, generator and below-grade LPG tank installation, Automatic Transfer Switch installation, electrical and controls, site work and restoration, as described herein and as shown on the drawings. The project also consists of furnishing all labor, equipment, and materials necessary for testing / pressure grouting of existing sanitary sewer piping including applicable site work and restoration, as described herein and as shown on the drawings.

Bidding Documents may be viewed and downloaded online www.vpsfl.org or <http://www.demandstar.com>. Hard copies of bidding Documents may be obtained from Holtz Consulting Engineers, Inc. on Mondays through Fridays between the hours of 8:00 AM and 5:00 PM. Bidding Documents are available on compact disc (as portable document format (PDF) files) for a non-refundable charge of \$ 40.00, including shipping via overnight express service. Alternatively, printed Bidding Documents may be obtained from Holtz Consulting Engineers, Inc. either via in-person pick-up or via mail, upon receipt of payment for the Bidding Documents. The non-refundable cost of printed Bidding Documents is \$ 80.00 per set, payable to "Holtz Consulting Engineers, Inc.".

Bidders must submit their responses electronically via DemandStar – <http://www.demandstar.com>.

A virtual pre-bid conference will be held at **2:30 PM** local time on **August 12, 2024**, via Microsoft Teams. Attendance at the pre-bid conference is **not** mandatory.

Non-Mandatory Pre-Bid Conference August 12, 2024, at 2:30 PM

Participants can use their telephone or computer mic & speakers (VoIP)

Registration: <https://events.gcc.teams.microsoft.com/event/6401bc0b-99f7-4992-b51f-1ee44d63b8b2@20801dc8-57d4-4c4b-b981-92be4d50e21c>

Meeting ID: 231 262 519 007

Passcode: SN4Fk6

Bid Opening – August 22, 2024, at 3:00 PM

Participants can use their telephone or computer mic & speakers (VoIP)

- Registration: <https://events.gcc.teams.microsoft.com/event/080ab52e-e029-448fa5f8-d81d89495d37@20801dc8-57d4-4c4b-b981-92be4d50e21c>

Meeting ID: 229 850 115 978

Passcode: xkgizP

Bid security shall be furnished in accordance with the Instructions to Bidders.

Any questions regarding the specifications and Solicitation process must be submitted in writing to the Procurement Specialist at procurement@vpsfl.org. Questions and requests for clarification and additional information must be received prior to the Deadline for Submission of Questions on **August 16, 2024, at 5:00 PM** local time.

Pursuant to Section 2-355 of Palm Beach County Ordinance No. 2011-039, and the purchasing policies of the Village of Palm Springs, all Solicitations, once advertised, are under the “Cone of Silence” until the appropriate authority has approved an award recommendation, rejected all responses or some other action by the Village to end the selection process. This limits and requires documentation of communications between potential Bidders and/or Bidders on Village Solicitations, the Village’s professional staff, and the Village Council members.

Owner: **Village of Palm Springs**

Date: **August 1, 2024**

Publication: **Lake Worth Herald, DemandStar, and Village of Palm Springs website**

+ + END OF ADVERTISEMENT FOR BIDS + +

ITB NO. 2024B-015

Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator

E-BID OPENING - August 22, 2024



Staff Present:

Andrew Klausner, Project Specialist
Kimberly Wynn, Village Clerk

Meeting Start: 3:00 PM

Meeting End: 3:07 PM

NAME	Email	ADDRESS	Lump Sum
Florida Design Drilling	jeff@fldrilling.com	7733 Hooper Road West Palm Beach, FL 33411	\$2,001,520.00
All Webbs Enterprises, Inc.	davidwebbjr@allwebbs.com	309 Commerce Way Jupiter, Florida 33458	\$1,742,114.00



HOLTZ CONSULTING ENGINEERS, INC

August 29, 2024

Mr. Andrew Klausner
Project Coordinator
Village of Palm Springs
360 Davis Road
Palm Springs, FL 33461

Subject: **Bid No. 2024B-015 – Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator**

Dear Mr. Klausner,

On August 22, 2024, at 3:00 p.m., bids were received for the referenced project. There were (2) bids accepted for the project as follows:

Bidder	Bid Amount	Acknowledged Addenda?	Included Bid Security?	Bid Submission Checklist Completed?
All Webbs Enterprises, Inc	\$1,742,114.00	Y	Y	Y
Florida Design Drilling, LLC	\$2,001,520.00	Y	Y	Y

The bids were reviewed by Holtz Consulting Engineers, Inc. (HCE) to evaluate whether the bids are responsive to the bid submittal requirements.

All Webbs Enterprises, Inc. was the low bidder with a Total Bid Amount of \$1,742,114.00. Their bid was reviewed and included the required bid bond, as confirmed by others, in the amount of five percent of their bid from an acceptable surety company according to the US Department of Treasury. They acknowledged receipt of the addenda in the bid form, as confirmed by others. The other forms and information required to be submitted with their bid were confirmed by others to be in order. We therefore consider the bid submitted by All Webbs Enterprises, Inc. to be responsive.

All Webbs Enterprises, Inc. has successfully completed numerous well / utility construction projects in South Florida, including similar projects for local utilities. References indicated that they completed their projects in conformance with the contract documents. All Webbs Enterprises, Inc. is a corporation in good standing with the Florida Department of State Division of Corporations. We therefore consider All Webbs Enterprises, Inc. to be a responsible bidder.

Based on the above information, Holtz Consulting Engineers, Inc. considers All Webbs Enterprises, Inc. to be the low responsive and responsible bidder and recommends that they be awarded the contract for the Replacement of Surficial Aquifer Well No. 14 and Installation of Standby Generator Project in the Total Bid Amount of \$1,742,114.00.

Sincerely,

Harrison Barron

Harrison Barron, P.E.
HOLTZ CONSULTING ENGINEERS, INC.

Fiscal Impact:

<i>Allocated/Estimated Project Funding FY 2024:</i>	<i>Amount</i>
Approved Funding - Water and Sewer Enterprise Fund:	\$1,200,000.00
TOTAL ALLOCATED/APPROVED BUDGET FY 2024	\$1,200,000.00
<i>Expected Project Costs FY 2024:</i>	<i>Amount</i>
Projected Costs - Construction - Water and Sewer Fund (TO #316 & 323):	\$1,742,114.00
TOTAL PROJECT REQUEST/COSTS FY 2024:	\$1,742,114.00

NOTE: \$1,300,000.00 is included in the proposed FY2025 budget for this project.



VILLAGE OF PALM SPRINGS PROJECT REQUEST FORM

TASK # **316**

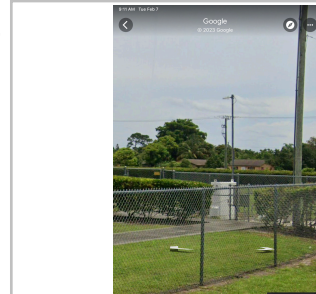
Project Name: Well #14 Replacement w/ Emergency Generator
Department: Utilities
Location: Donald Rd & Cypress Way W.

Project Manager: Andrew Klausner
Plan Date: 2/1/23
Date Approved:

DESCRIPTION / JUSTIFICATION:

The Utilities Department identified the need to replace Well #14 due to low water production. The project will require re-drilling the well and providing new piping, valves, instruments, and a new pump. In addition, a permanent standby generator will be provided to service this well as well as Well #13.

G/L: 41336-56300



PROJECT EXPENDITURES / FUNDING SOURCES:

PROJECT COSTS:	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
Land/Easement Acquisition							\$ 0.00
Site Preparation (clearing,soil testing,permitting,survey)							\$ 0.00
Architectural Services							\$ 0.00
Engineering Services	160,000.00						\$ 160,000.00
Construction							\$ 0.00
Equipment							\$ 0.00
Improvement (utility, lightning)							\$ 0.00
Other (Specify)							\$ 0.00
TOTAL PROJECT COSTS	\$ 160,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 160,000.00

SOURCES OF FUNDS:	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
General Fund Revenue CY							\$ 0.00
One Cent Sales Tax Funding							\$ 0.00
Grant Funding:							
CDBG							\$ 0.00
FRDAP							\$ 0.00
PBC							\$ 0.00
Other (Specify)							\$ 0.00
W/S Enterprise Fund Revenues	300,000.00						\$ 300,000.00
Stormwater Fund Revenues							\$ 0.00
Undetermined							\$ 0.00
TOTAL PROJECT REVENUE	\$ 300,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 300,000.00

OPERATIONAL IMPACT

OPERATIONAL IMPACT	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	TOTAL
Additional Revenues							
Charges for Services							0.00
Other Revenues							0.00
Less Additional Expenditures							
New Personnel							0.00
Maintenance and Other Operating							0.00
Contracts & Leases							0.00
Net Annual Impact on Operations	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
TOTAL	\$ 140,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 140,000.00

Paul Ward

Department Head

2/7/23

Date



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Administration

ITEM #5: Approve Professional Services Agreement - Lobbying Services - Ronald L. Book, P.A.

SUMMARY: Last year was the first time that the Village engaged a law firm that specializes in lobbying services to represent our interests in Tallahassee and place us in a better position for State discretionary funding. With the assistance of the team from Ronald L. Book, P.A., the Village was able to obtain a State appropriation of \$1 million for the Congress Avenue Sanitary Sewer Force Main project.

Staff is recommending that the Village again engage Ronald L. Book, P.A., who has an office in Tallahassee (Florida) and Hollywood (Florida). They bring extensive experience in legislative representation as well as professional respect among legislators. Locally, they have represented the Village of Royal Palm Beach, Loxahatchee Groves, Palm Beach County, and numerous other South Florida cities.

The staff recommends that the Village Council approve the proposed Professional Services Agreement with Ronald L. Book, P.A., for State lobbying services.

FISCAL IMPACT:

The proposed Fiscal Year 2025 Village Council budget includes \$50,000 for a lobbyist. Item is budgeted in account 01111-53100 for Fiscal Year 2025.

ATTACHMENTS:

1. Proposed Professional Services Agreement - Ronald L. Book, PA
2. Ronald L. Book, P.A. Overview
3. Village of Palm Springs Affidavit of Compliance with Human Trafficking Laws

VILLAGE OF PALM SPRINGS STANDARD ADDENDUM

This Village of Palm Springs Standard Addendum ("Addendum") is made as of the 11TH day of SEPTEMBER, 2024, by and between the **Village of Palm Springs**, a Florida Municipal Corporation ("Village") and Ronald L. Book, P.A. a Florida Professional Association ("Firm").

In consideration of the mutual promises contained in this Addendum and contained within the Firm's Letter Agreement dated September 11, 2024, which is attached hereto as **Exhibit "A"** ("Agreement") (collectively, this Addendum and the Agreement are the "Contract" or the "Contract Documents"), the Village and Firm agree as follows:

SECTION 1 – PAYMENTS; TERM; TERMINATION

1.1 For the legislative and executive branch lobbying services, the Village shall pay the Firm the compensation amount as set forth in the Agreement.

1.2 Payments shall be made by the Village within forty-five (45) days of receipt of a proper monthly invoice from the Firm or the Village shall be subject to interest at the rate of 1% per month from thirty (30) days after the due date, in accordance with the Local Government Prompt Payment Act, Section 218.70, et seq, Florida Statutes.

1.3 This Contract shall be in effect as of the date it is approved and executed by the Village. The Term of the Contract is for a period of one (1) year.

1.4 Either party may terminate this Contract by delivering a written notice to the other party a minimum of thirty (30) days prior to the date of termination. Termination in accordance with this paragraph shall be without cause or penalty.

1.5 Firm acknowledges and agrees that the Village is a municipal corporation and political subdivision of the state of Florida, and as such, the Contract Documents are subject to budgeting and appropriation by the Village of funds sufficient to pay the costs associated therewith in any fiscal year of the Village. Based upon the timeframes set forth in the Contract Documents, the Village agrees that it has the funding available for the current fiscal year (FY 2022-2023) and agrees to propose in each applicable fiscal year budget thereafter an amount to cover the Village's payment obligations as stated in the Contract Documents; however, the Village's future funding obligations as stated herein are all subject to the Village's annual budgeting and appropriation process. Firm understands and agrees that the Village's funding obligations hereunder are payable exclusively from duly appropriated or otherwise legally available funds and shall not be construed to be debt, liability or obligation within the meaning of any applicable constitutional or statutory limitation or requirement. Neither the Village nor the State of Florida nor any political subdivision or agency thereof has pledged any of its full faith and credit or its taxing power to make any payments under the Contract Documents. In the event the funds budgeted or appropriated are, or are estimated by the Village to be, insufficient to pay the costs associated with the Village's payment obligations in the Contract Documents in any fiscal year after the current fiscal year, then the Village will notify Firm of such occurrence and either the Village or Firm may terminate the Contract Documents by notifying the other in writing, which notice shall specify a date of termination no earlier than twenty-four (24) hours after giving of such notice. Termination in accordance with the preceding sentence shall be without penalty or expense to the Village of any kind whatsoever; however, Village shall pay Firm for all services performed under the Contract Documents through the date of termination.

SECTION 2 – CONTRACT DOCUMENTS AND CONTROLLING PROVISIONS

The agreement between the parties consists of the Contract Documents. To the extent that there exists a conflict between this Addendum and the remaining Contract Documents, the terms, conditions, covenants, and/or provisions of this Addendum will prevail. Wherever possible, the provisions of such documents shall be construed in such a manner as to avoid conflicts between provisions of the various documents.

SECTION 3 –PUBLIC ENTITY CRIMES; PALM BEACH COUNTY IG; SCRUTINIZED COMPANIES

3.1 As provided in Sections 287.132-133, Florida Statutes, as amended from time to time, by entering into the Contract Documents, Firm certifies that it and its affiliates who will perform hereunder have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the thirty-six (36) months immediately preceding the date hereof.

3.2 In accordance with Palm Beach County ordinance number 2011-009, this Contract may be subject to investigation and/or audit by the Palm Beach County Inspector General. The Firm should review Palm Beach County ordinance number 2011-009 in order to be aware of its rights and/or obligations under such ordinance and as applicable.

3.3 As provided in Section 287.135, Florida Statutes, as amended from time to time, by entering into the Contract Documents, Firm certifies that it is not participating in a boycott of Israel. Village and Firm agree that the Village will have the right to terminate the Contract Documents if Firm is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

SECTION 4 – SOVEREIGN IMMUNITY; LAW, VENUE, REMEDIES; WAIVER OF JURY TRIAL; ENFORCEMENT COSTS; INDEMNIFICATION

4.1 Nothing contained in any of the Contract Documents shall be construed or interpreted as consent by the Village to be sued, nor as a waiver of sovereign immunity beyond the waiver and limits provided in Section 768.28, Florida Statutes, as amended from time to time.

4.2 The Contract shall be governed by the laws of the State of Florida. The Firm represents that it is authorized to do business in the State of Florida and covenants that it will continue to be authorized through the completion of this Contract. Venue for any and all legal action necessary to enforce this Contract will be held exclusively in Palm Beach County, Florida. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

4.3 TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THE CONTRACT DOCUMENTS.

4.4 If any legal action or other proceeding is brought for the enforcement of the Contract, or because of an alleged dispute, breach, default or misrepresentation in connection with any provisions of the Contract Documents, the parties agree that each party shall be responsible for its own attorney's fees.

SECTION 5 – SURVIVABILITY; SEVERABILITY; PREPARATION; WAIVER

Any provision of the Contract which is of a continuing nature or imposes an obligation which extends beyond the term of the Contract shall survive its expiration or earlier termination. If any term or provision of the Contract, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, the remainder of the Contract, or the application of such terms or provision, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be

affected, and every other term and provision shall be deemed valid and enforceable to the extent permitted by law. The Contract shall not be construed more strongly against either party regardless of who was more responsible for its preparation. Failure of a party to enforce or exercise any of its right(s) under this Contract shall not be deemed a waiver of that party's right to enforce or exercise said right(s) at any time thereafter.

SECTION 6 – E-VERIFY

Pursuant to Section 448.095(2), Florida Statutes, the Firm shall:

1. Register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all subcontractors (providing services or receiving funding under this Contract) to register with and use the E-Verify system to verify the work authorization status of all the subcontractors' newly hired employees;
2. Secure an affidavit from all subcontractors (providing services or receiving funding under this Contract) stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien;
3. Maintain copies of all subcontractor affidavits for the duration of this Contract;
4. Comply fully, and ensure all of its subcontractors comply fully, with Section 448.095, Florida Statutes;
5. Be aware that a violation of Section 448.09, Florida Statutes (Unauthorized aliens; employment prohibited) shall be grounds for termination of this Contract;
6. Be aware that a violation of Section 448.095(5) by a subcontractor, and not the Firm, shall be grounds for the Village to order the Firm immediately terminate the contract with the subcontractor; and
7. Be aware that if the Village terminates this Contract under Section 448.095(2)(c), Florida Statutes, the Firm may not be awarded a public contract for at least 1 year after the date on which the Contract is terminated and will be liable for any additional costs incurred by the Village as a result of the termination of the Contract.

SECTION 7 –SUCCESSOR AND ASSIGNS

The Village and the Firm each binds itself and its partners, successors, executors, administrators, and assigns to the other party and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of the Contract. Except as set forth above, neither the Village nor the Firm shall assign, sublet, convey or transfer its interest in the Contract without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of the Village which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the Village and the Firm.

SECTION 8 – PUBLIC RECORDS

8.1 The Firm shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the Village as provided under section 119.011(2), Florida Statutes, specifically agrees to:

1. Keep and maintain public records required by the Village to perform the service.
2. Upon request from the Village's custodian of public records or designee, provide the Village with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of this Contract and following completion of this Contract if the Firm does not transfer the records to the Village.

4. Upon completion of this Contract, transfer, at no cost, to the Village all public records in possession of the Firm or keep and maintain public records required by the Village to perform the service. If the Firm transfers all public records to the Village upon completion of the Contract, the Firm shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Firm keeps and maintains public records upon completion of the Contract, the Firm shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Village, upon request from the Village's custodian of public records or designee, in a format that is compatible with the information technology systems of the Village.

IF THE FIRM HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE FIRM'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS OR DESIGNEE AT 561-434-5084, kwynn@vpsfl.org, OR BY MAIL AT VILLAGE OF PALM SPRINGS, 226 CYPRESS LANE, PALM SPRINGS, FL 33461.

SECTION 9 – ACCESS AND AUDITS; TAXES

9.1 The Firm shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the Services for at least three (3) years after completion of the Contract. The Village shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours and upon reasonable prior notice, at the Firm's place of business. In no circumstances will Firm be required to disclose any confidential or proprietary information regarding its products and service costs.

9.2 The Village is exempt from payment of Florida State Sales and Use Tax. Firm shall not be exempted from paying sales tax to its suppliers for materials used to fill any contractual obligations with the Village, nor is Firm authorized to use the Village's Tax Exemption Number in securing such materials. Firm shall be responsible for payment of their own and their share of its employees' payroll, payroll taxes, and benefits with respect to the Contract.

SECTION 10 – INSURANCE

10.1 Coverage Limits. During the term of this Agreement, Firm shall maintain the following insurance coverage in at least the following amounts:

1. Workers' Compensation consistent with requirements and limits set under Ch. 440, Florida Statutes.
2. Commercial General Liability coverage (including products and completed operations blanket or broad form contractual, personal injury liability and broad form property damage) with minimum limits of one million dollars (\$1,000,000) per occurrence for bodily injury/property damage and one million dollars (\$4,000,000) for personal injury and products/completed operations.
3. Business Automobile Liability coverage (covering the use of all owned, non-owned and hired vehicles) with minimum limits (combined single limit) of one million dollars (\$1,000,000) for bodily injury and property damage.

10.2 Policy Requirements. Firm's policies shall be primary and any insurance maintained by the Village is excess and non-contributory. Promptly upon Village's written request for same, the Firm shall provide or cause its insurers or insurance brokers to issue certificates of insurance evidencing that the coverages required under this Contract are maintained in force and effect.

SECTION 11 – ENTIRETY OF CONTRACTUAL AGREEMENT

The Village and Firm agree that the Contract Documents set forth the entire contract between the parties, and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in the Contract Documents may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto.

SECTION 12 - COUNTERPARTS

This Addendum may be executed in one or more counterparts, each of which shall be deemed to be an original and such counterparts will constitute one and the same instrument. The parties agree to accept the execution and delivery of this document by digital or electronic means and shall treat the same as an original.

IN WITNESS WHEREOF, the parties hereto have caused this Addendum to be executed as of the day and year set forth above.

VILLAGE OF PALM SPRINGS

ATTEST:

By: _____
Kim Wynn, Village Clerk

By: _____
Bev Smith, Mayor

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

By: _____
Glen J. Torcivia, Village Attorney

FIRM: RONALD L. BOOK, P.A.

By: _____
Signature of Authorized Representative

[Corporate Seal, if required]

STATE OF FLORIDA)
COUNTY OF BROWARD)

THE FOREGOING instrument was acknowledged before me by means of physical presence or online notarization on this 11TH day of SEPTEMBER, 2024, by RONALD L. BOOK [name], as CEO [title] of Ronald L. Book, P.A., a Florida Professional Association, and who is personally known to me or who has produced the following as identification:

[Notary Stamp]



Signature of Notary Public

Exhibit "A"

Letter Agreement (dated September 11, 2024)

Two (2) Pages total



September 11, 2024

Mr. Michael Bornstein, Village Manager
Village of Palm Springs
226 Cypress Lane
Palm Springs, FL 33461

VIA EMAIL: mbornstein@vpsfl.org

Dear Mr. Manager,

First and foremost, thank you again for the continued opportunity to represent the Village of Palm Springs and your legislative needs and priorities. We are excited and eager to continue in that role working and advocating for the Village and we are confident we will continue to provide meaningful and effective service as we work to accomplish your goals.

GENERAL TERMS

It is understood that the purpose of this engagement is for our firm to provide legislative and executive branch lobbying services for the Village of Palm Springs related to the needs and priorities of Village. This representation includes the state Legislature, Executive Branch, and all state agencies. The representation includes all traditional lobbying duties, including, but not limited to, the following:

- Drafting and preparing appropriations request applications and supporting documents
- Identifying legislative champions for said projects
- Testifying at committee hearings
- Preparing support materials as necessary
- Scheduling meetings for Village officials with House and Senate members, staff, and agency officials
- Providing written reports regularly throughout the legislative session and committee weeks
- Identifying grant opportunities and providing assistance with applications.
- Providing information, advice, and assistance on any substantive legislative matters that may impact the Village.
- Appearing before the Village as necessary to provide updates and reports and generally be available for Village-related teleconferences and meetings.

Should any collateral materials or presentations be needed, you agree to provide such. You also agree to fully educate us on all aspects of Village issues and priorities thus allowing us to be effective and aggressive in our representation. It is understood that it may be necessary for you to attend legislative committee hearings, and meetings with legislators, legislative staff, and executive branch officials and staff, and you agree to make yourself available for said meetings with reasonable notice.

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- ☐ 104 West Jefferson Street - Tallahassee, Florida 32301 - (850) 224-3427

FEES

In exchange for this representation, you agree to compensate our firm with an annual retainer of \$50,000.00, invoiced monthly, over 12-months, at a rate of \$4,166.66. There will be no limitations on hours that need to be expended to accomplish your goals. We will invoice prorated travel costs with a not to exceed in the aggregate of \$3,000.00, annually. It is understood that this agreement is effective upon execution and covers the 2025 Legislative Session, to include all interim committee hearings and the Governor's review period for any approved appropriations projects.

Again, thank you for this opportunity. Assuming this meets with our mutual understanding, please sign, and return this agreement to our office at your earliest convenience.



Ronald L. Book
Ronald L. Book, P.A.

Michael Bornstein, Village Manager
Village of Palm Springs



FIRM OVERVIEW AND PROFESSIONALS

Thank you for the opportunity to share some information about who we are at Ronald L. Book, P.A.

Our firm is considered one of the premier lobbying firms in the state, with unparalleled experience in the appropriations process. The firm is consistently ranked in the top five Tallahassee lobbying firms among various media sources and others who follow Tallahassee politics and has been named the number one appropriations firm in Florida for several years. Established in 1987, the firm has a long history representing Fortune 500 companies, sports teams and sports facilities, government entities like cities and counties, hospitals and health care entities, professional associations and not-for-profit groups. Our law firm works exclusively in the government affairs arena, specializing in legislative and executive advocacy, strategic planning and general government consulting. We are proud to be involved in the legislative process 365 days-a-year. We are a bipartisan firm that enjoys extensive bipartisan relationships with legislature and executive branch, allowing us to be effective in today's political climate. We are one of the few statewide firms with a robust local government practice, and we are well known throughout Florida's congressional delegation.

Ronald L. Book, P.A. offers a powerful combination of talent and experience with a proven track record before the legislative and executive branches of government. The firm's contact base extends throughout state government and includes legislative leadership, legislative staff, and executive branch officials. We provide hands-on monitoring, intelligence and oversight of government activity coupled with a highly professional, performance-oriented approach for meeting client goals and objectives. We work closely with our clients to develop a concise and focused agenda with strategies designed to exceed client expectations.

The firm boasts a virtually flawless record of success attaining clients' goals, which range from legal counseling on corporate and private matters to persuading lawmakers to support or oppose various programs and causes. Professional skill is complemented by responsive, personal service as evidenced by the fact that the vast majority of clients have retained the firm's services for many years. Operating full-time offices in Aventura and Tallahassee affords the firm's professionals close proximity to clients and legislators, providing access to, and visibility amongst, key decision-makers. The result for our clients is maximum accessibility.

The firm's mission is to provide a full range of government relations services to our clients – “anything and everything government.” We utilize our knowledge of the legislative process and our relationships with the “players” in the process to assist clients by representing their interests and advocating their legislative agendas – be it a change in substantive law, a grant opportunity, an executive order or a complex budget formula, trust fund or line item.

At Ronald L. Book, P.A., we have a simple firm philosophy– “It CAN be done.” We rely on that philosophy to approach any endeavor, and it has helped us be successful, even in difficult circumstances. We treat every issue – every amendment, every bill, and every budget request – as a priority, to ensure

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that we are not approaching issues from a reactionary perspective, but a proactive one. Furthermore, we understand that the legislative process is not a process that begins and ends in the 60-day legislative session, but rather a year-round process that requires constant vigilance, commitment and dedication.

Finally, our firm understands that the best way to keep and maintain working relationships with Legislators and staff is to be honest, forthright and ethical in all activities. We are well respected throughout the Capitol for our business practices. We believe that relationships are easily enhanced when built on a foundation of honesty, understanding and mutual respect. We carry that philosophy into the Capitol every day, and it contributes to our success.

Simply put, each member of our firm has good relationships with the Florida Governor and Cabinet, state agencies, House and Senate members, both Democrat and Republican, and we count the new and future presiding officers and leaders in both chambers of the Legislature as friends.

There is one guarantee in government affairs and politics, and that is change – changes in leadership, changes in priorities and changes to the process are all commonplace in Tallahassee. For more than 30 years, Ronald L. Book, P.A. has remained a constant in Tallahassee politics, and our clients have looked to us for advice and counsel to navigate that sea of change. We provide effective solutions and achievement by offering our clients:

- Strategic planning with a proactive approach.
- Professional and experienced government relations consultants.
- Bipartisan contacts throughout Florida government.
- Dedication and determination to get the job done.

Attached please find some information on our firm's professionals.

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Ronald L. Book, Esq. | Founder, President and CEO

Mr. Book is President and Chief Executive Officer of Ronald L. Book, P.A. Since founding the firm in 1987, Ron has developed a client list that is a “who’s who” of business and industry, local governments, health care and not-for-profit associations. His reputation as a hard worker, dedicated to his client’s causes, has earned him a place in the upper echelon of Tallahassee power. Associates, clients and lawmakers describe Ron Book and his firm as committed, tenacious, knowledgeable and credible.

It is difficult to narrow Mr. Book’s areas of expertise to a simple few. From sports and economic development to affordable housing to environmental remediation to social services, transportation, growth management, health care, seaports and aviation -- if it is an issue that you have read about, Mr. Book has been at the center of the debate,

influencing the decisions of policymakers for the past 4 decades.

For more than 30 years, his firm has led the government affairs industry in Florida, specializing in the appropriations process, responsible for literally, billions in grants, programs and earmarks to various projects and causes. An innovator in local government representations, the firm counts dozens of cities, counties and government entities as clients. The result of his innovation in this practice area is that the firm’s relationships and influence extend well beyond the halls of the state Capitol and deep into City and County governments, north to south and coast to coast. It is why the firm is one of the few that offers first tier state legislative representation along with a robust and extensive local government practice.

In his local practice, Ron specializes in land use and zoning, with a strong emphasis on large-scale, iconic developments, including major mixed-use developments, stadiums, arenas, automobile dealerships, convenience stores and many others. Additional local representations focus on procurement, purchasing and disaster debris management.

Ron’s history in the Florida political process began in the 1970’s, when he began working for the Florida Legislature. He later served as Special Counsel and head of Legislative Affairs for Florida Governor Bob Graham and later, as Director of the Administrative and Governmental Law Department for Miami-based Sparber, Shevin, Shapo, Heilbronner & Book, one of Florida’s most influential law firms from 1977 to 1987. His knowledge of Florida politics and its players is rooted in his work in several statewide gubernatorial, cabinet level and referendum campaigns – from “Five for Florida’s Future” in 1980 to the two campaigns that ultimately authorized gaming at Florida’s pari-mutuel facilities in 2004 and 2008.

In addition to his work on lobbying matters, Ron also provides general consulting services for many businesses, in both long-established and growing industries, including navigating complex regulatory matters, business development and strategic planning. To provide this guidance, he draws on his vast network of relationships, which range from current and former elected officials at all levels of government as well as business leaders in a wide range of industries.

Dedicated to community causes, Ron has served on dozens of charitable boards, including the Mourning Family Foundation, Best Buddies and Joe DiMaggio Children’s Hospital, to name a few. He also serves as Chairman of the Miami-Dade Homeless Trust, where he has been a member for more than 25 years, first appointed by Mayor Alex Penelas and subsequently reappointed numerous times. The Trust

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administers a budget of over \$66 million in funds and oversees Miami-Dade County's effort to end homelessness in the community. Under his leadership, the Trust has been recognized numerous times as a national best practice model, and was proud to host HUD Secretary Ben Carson, last year, when the Trust was among the first in the country to announce and end to Veteran's homelessness in our community.

In addition to his work at the Trust, Ron serves as Chairman of the Board for the Lauren's Kids Foundation, a not-for-profit entity he founded with his daughter, Florida State Senator Lauren Book. The Lauren's Kids Foundation is dedicated to ending childhood sexual abuse through education and awareness and helping survivors heal with guidance and support. The foundation educates adults and children about sexual abuse prevention through in-school curricula that is currently offered in over 90,000 classrooms nationwide. They also engage with the community through various awareness campaigns and speaking engagements around the country and the world.

Ron holds a Juris Doctorate degree from Tulane University and a B.A. in Political Science from Florida International University. He is a member in good standing of the Florida Bar. He is a registered lobbyist and a member of the Florida Association of Professional Lobbyists (FAPL).



Kelly C. Mallette | Senior Director of Government Affairs

Kelly oversees the firm's Capitol lobbying practice, including the overall development of strategy, approach and execution for the firm's extensive portfolio of clients.

Kelly's long experience in politics began decades ago, when, at the age of 19, she worked as an intern to one of Florida's most recognized lobbyists. Since then, she has grown into a powerful force in the Florida Capitol, providing lobbying services to a broad range of firm clients, including high-level business interests, hospitals, health care providers, professional associations and many others. Her experience as Senate aide to a former Appropriations subcommittee chair, provided her with unique insight into Florida's budget process, which has yielded hundreds of millions in funds for clients for everything from instructional materials, to complicated hospital formulas, to health care rate increases and other various grants and special appropriations.

A gifted writer and communicator, it is not unusual for a client to see Kelly's writing end up in official documents like substantive legislation, speeches and veto messages. She also helps oversee the firm's political and fundraising efforts, advising clients on campaign financing, fundraising management and compliance.

Early in her career, Kelly served as policy advisor and speechwriter for the then Mayor of Miami. She draws on that experience to assist in managing the firm's local government consulting practice. She focuses her expertise on zoning and permitting in multiple jurisdictions, working to expedite approvals for a wide range of clients.

Active in Republican politics, Kelly is on the Miami-Dade County Republican Executive Committee, and is a former member of the Board of Directors of the Miami-Dade Republican Party where she served as Vice-Chair of the Finance Committee. She was named Republican of the Year for Miami-Dade County

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in 2015. She has been a delegate at each of the last four Republican National Conventions and accepted an invitation to attend the 2016 Presidential inaugural events. Kelly also recently represented the firm on the host committee for Governor Ron DeSantis' inaugural celebration.

Once an elected official herself, Kelly served a 4-year term as a Commissioner in the Village of Biscayne Park, her hometown. She also served on the Miami-Dade County Safe Neighborhoods Parks Bonds Committee, overseeing millions in public funds approved for park projects in Miami-Dade County. She is a member of the Florida Association of Professional Lobbyists (FAPL).



Rana G. Brown | Government Affairs Consultant

In 2008, Rana Brown joined Ronald L. Book, P.A., with over 16 years of experience in government affairs. Ms. Brown is a Government Affairs Consultant for Ronald L. Book, P.A. She specializes in legislative procedure with emphasis on state and local government and various private sector interests. Ms. Brown provides executive direction services for the Florida Regional Councils' Association, a statewide organization. Her work with the Florida Regional Councils' provides her a depth of knowledge regarding local government, transportation, growth management and environmental issues. Prior to joining Ronald L. Book, P.A., Ms. Brown headed the Advocacy Department of the Greater Miami Chamber of Commerce where she restructured the Chamber's government affairs focus to address issues affecting the business community at the local, state and federal levels. Prior to her work at the Chamber, Ms. Brown held the position of Assistant Director of Intergovernmental Affairs within the office of the Mayor of Miami-Dade County, where she worked on behalf of the County before the state legislature, state agencies and executive branch. Ms. Brown's experience also includes nine years as staff in the Florida Senate, both in Tallahassee and Miami, several of which were in the office of the Senate President, and six years as a legislative assistant to a South Florida legislator. Ms. Brown holds a B.A. in History from Florida State University.



Gabriela Navarro | Associate Consultant

As the newest hire to Ronald L. Book, P.A., Gabriela Navarro brings her knowledge of the political process and unmatched work ethic to the firm. Her experience in various levels of Florida government is invaluable to clients from various industries. Due to that diverse experience, Gabriela will work with clients across the firm's portfolio while handling multiple matters in front of the legislature.

Gabriela's political career began when she, as a college student, accepted an internship in one of Florida's most recognizable lobbying and public affairs firms. During her time there, she was promoted to an associate before the age of 22. Her duties included both lobbying and managing local and judicial campaigns. More recently, she served as the lead legislative aide to a state representative in the Miami-Dade Legislative Delegation. As a House aide, her duties included acting as a liaison to municipalities, elected officials, businesses, and community organizations in the district. She was also responsible for overseeing legislative efforts, including budget and substantive issues.

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RECENT SUCCESS

Below please find an overview of recent success on behalf of some of our clients, with an emphasis on our municipal clients.

2023 Legislative Session

- \$580,000 for the City of Aventura 191st Street Drainage Project
- \$500,000 for the Bal Harbour Village Jetty Elevation and Resiliency Project
- \$774,000 for the Bal Harbour Village Stormwater System Improvements
- \$370,000 for the Cooper City Hiatus Road Traffic Safety Improvement
- \$450,000 for the Cooper City SW 49th Street Culvert Rehabilitation and Replacement Project
- \$600,000 for the City of Coral Gables Citywide Bridge Repair Program
- \$700,000 for the City of Coral Gables Force Main Replacement Program
- \$500,000 for the City of Coral Gables Street Resurfacing Program
- \$500,000 for the City of Coral Gables Venetian Structural and Surface Repair
- \$500,000 for the City of Dania Beach SW 52 Street Stormwater Improvement Project
- \$7,400,000 for the Village of Estero River Heights & Cranbrook Harbor Utility Expansion Project
- \$100,000 for the City of Fort Lauderdale Community Court
- \$251,500 for the City of Lauderdale Lakes Alzheimer's Care Center/Alzheimer Care Services Expansion
- \$514,740 for the City of Lauderdale Lakes Stormwater Conveyance and Water Quality Improvement Project
- \$750,000 for the Town of Loxahatchee Groves Stormwater Systems Rehabilitation
- \$300,000 for the City of Marco Island Canal and Chanel Aeration Pilot Study
- \$600,000 for the City of Marco Island Generator Storage Building
- \$212,500 for the City of Marco Island High Water Fire Suppression Vehicle
- \$400,000 for the City of Marco Island San Marco Road Dead-End Canal Interconnect
- \$250,000 for the City of Margate Northwest Focal Point Senior Center ADA Renovations and Services
- \$600,000 for the City of Margate Stormwater Infrastructure Rehabilitation, Canal Embankment Restoration & Dredging
- \$500,000 for the City of Miami Beach Resilient Seawalls Along Collins Avenue
- \$350,000 for the City of Miramar Canal Improvements
- \$300,000 for the City of Miramar Southcentral/Southeast Focal Point Senior Center
- \$500,000 for the City of Miramar Digital Police Radio Replacement Phase I
- \$150,000 for the North Bay Village Inlet Filters Phase 2
- \$500,000 for the North Bay Village Inlet Wastewater Pump Station Phase 2
- \$350,000 for the North Bay Village Sidewalk and ADA Improvements
- \$600,000 for the City of North Miami Septic Tank to Sanitary Sewer Conversion Phase 2
- \$450,000 for the City of Pinellas Park Beacon Run North & South Ponds Water Quality Project
- \$165,560 for the City of Pinellas Park Pinebrook Safety Project
- \$500,000 for the City of Royal Palm Beach Canal System Rehabilitation Phase II
- \$500,000 for the City of Royal Palm Beach La Mancha Subdivision Roadway Underdrain

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- \$225,000 for the City of Sunny Isles Beach Urban Trail
- \$750,000 for the City of Sunrise Regional Reuse Water Main Extension
- \$400,000 for the City of Tamarac Stormwater Culvert Headwalls Improvement Project Phase 7
- \$600,000 for the City of Tamarac Water Treatment Plant Control Building

2022 Legislative Session

- \$13,500,000 for the City of Pinellas Park Youth Sports Complex
- \$1,500,000 for Learning Ally/FSU Dyslexia Screener
- \$1,000,000 for the Overtown Youth Center
- \$375,000 for the Coral Gables Citywide Septic to Sewer Conversion
- \$500,000 for the Coral Gables Legacy Sewer System Repair and Replacement
- \$500,000 for the Coral Gables Stormwater Master Plan
- \$750,000 for the Coral Gables Restoration of Historic Gondola Building
- \$250,000 for the City of Lauderdale Lakes Alzheimer's Care Center
- \$275,000 for the City of Margate – Northwest Focal Point Senior Center
- \$300,000 for the City of Miramar – South Central/Southeast Focal Point Senior Center
- \$306,000 for the Nancy J. Cotterman Center Advocacy Program, located in Fort Lauderdale
- \$100,000 for the North Miami Beach Police Department Solving Cold Cases Using New Technology
- \$530,000 for the Village of Estero Utility Expansion Phase I
- \$750,000 for the Village of Estero on the River Trails
- \$450,000 for the Village of Estero Sandy Lane Bicycle and Pedestrian Improvements
- \$500,000 for the Town of Fort Myers Beach Estero Beach Blvd Water Stormwater Improvements
- \$399,695 for the City of Lauderdale Lakes Water Improvements and Canal Bank Stabilization Project
- \$416,745 for the City of Marco Island Canal Flushing Improvement Project San Marco Road/South Seas Court
- \$500,000 for the City of Margate Stormwater Infrastructure and Canal Embankment Restoration
- \$500,000 for the City of Miramar Historic Miramar Drainage Improvements Phase V
- \$150,000 for the North Bay Village Stormwater Inlet Filter Installation
- \$500,000 for the North Bay Village Wastewater Pump Station Improvements
- \$500,000 for the City of North Miami Septic Tank to Sanitary Sewer Conversion
- \$400,000 for the City of Sunny Isles Beach Central Island Drainage Project
- \$1,702,512 for the City of Marco Island Smokehouse Bay Bridge Replacement
- \$400,000 for the City of North Miami Pedestrian Bridge Over C-8 Canal

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VILLAGE OF PALM SPRING OFFICE OF THE VILLAGE CLERK

226 Cypress Lane • Palm Springs, FL • 33461

Affidavit of Compliance with Anti-Human Trafficking Laws

[THIS FORM MUST BE SIGNED AND NOTARIZED]

I, the undersigned, am an authorized officer or agent of RONALD L. BOOKER ("Vendor") and attest that the Vendor does not use coercion for labor or services as defined in section 787.06, Florida Statutes.

Under the penalty of perjury, I hereby declare swear or affirm that the above state facts are true and correct.

By: [Signature]

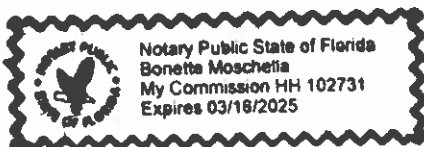
Print Name: Ron Booker

Print Title: CEO

STATE OF FLORIDA }
COUNTY OF PALM BEACH }

THE FOREGOING instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on this 9th day of SEPTEMBER 2024, by RONALD L. BOOKER, as the CEO [title] of Vendor, who is personally known to me or who has produced _____ as identification and who did affirm or swear to the same.

Notary Seal:



[Signature]

Notary Public Signature



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Utilities

ITEM #6: Sodium Hypochlorite Contract - Piggyback - Utilities Department (FY 2025 Budget Funded - Water & Sewer Enterprise Fund) - Allied Universal Corporation

SUMMARY: The Utilities Department, throughout the year, purchased Sodium Hypochlorite, which is a critical chemical component in the water treatment process and works in conjunction with ammonia to create chloramine used as a disinfectant. The Village utilizes chloramine as a long-lasting disinfectant that aids in ensuring that we maintain compliance with Health Department standards and provide high-quality water for our customers. The Village currently uses Allied Universal Corporation to assist with this type of chemical, and the previously piggybacked contract (from Charlotte County) expires on September 30, 2024.

To ensure the lowest possible price, staff recommended the Village piggyback Charlotte County's current contract and awarded Allied Universal Corporation. This selection by Charlotte County was completed through a competitive selection process - Water and Wastewater Chemicals (ITB #2024000547–August 14, 2024).

If approved, the Village would accept Allied Universal Corporation's pricing by piggybacking Charlotte County's contract, including all terms, conditions, and pricing therein. The term of the proposed Agreement would expire on September 30, 2025, and may be renewed for two (2) additional one (1) year periods. The Village will not expend more than the amount in the approved budget as it may be adopted/amended yearly for these goods and services over the contract term.

The Village's Purchasing Code, Section 58-9, Accessing Contracts of Other Government Agencies, provides that the Village may award a contract by piggybacking or accessing the goods or services from any State of Florida contract; agreements of any Florida political subdivision; or from any other governmental entity (other than the Federal government); provided that the same or substantially similar goods and/or services were competitively solicited.

The Village Attorney prepared and reviewed the proposed Agreement with the Utilities Director, Assistant Utilities Director, and Finance Director.

The Village has worked with the proposed vendor and has received excellent service and a quality product.

FISCAL IMPACT:

Funding to support purchases under this proposed agreement is available within the FY 2025 Budget - Water & Sewer Enterprise Fund. The Village will not expend more than the amount in the approved

Budget as it may be adopted/amended each year for those goods and services over the term of this contract.

ATTACHMENTS:

1. Allied Universal - Approval to Piggyback
2. Charlotte County - Bid Package
3. Charlotte County - Bid Tabulation
4. Piggyback Allied Universal Sodium Hypo Solution



Headquarters
3901 NW 115th Avenue
Miami, Florida 33178
305-888-2623 office
305-885-4671 fax

September 5, 2024

Village of Palm Springs
Paul Ward
Assistant Utilities Director
Phone: (561) 584-8200, 8712
Email: pward@vpsfl.org

Re: Bid# 2024000547, Sodium Hypochlorite

Dear Mr. Ward:

Please be advised that Allied Universal Corporation has approved the Village of Palm Springs participation in the Charlotte County Water and Wastewater Chemicals Bid #2024000547.

The pricing for Sodium Hypochlorite under this arrangement will be \$1.67 per gallon.

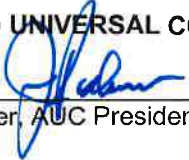
This piggyback agreement will be effective from October 1, 2024, through October 31, 2025.

During this period, the Village of Palm Springs will procure all Sodium Hypochlorite requirements exclusively from Allied Universal Corporation. If you are in agreement with the offer, term and conditions as stated on the original bid, and wish to be included in this Bid Contract, please indicate your acceptance by signing below and send a copy of the letter back to Bids@Allieduniversal.com as soon as possible.

We look forward to hearing from you.

Very truly yours,

ALLIED UNIVERSAL CORPORATION


J. Palmer, AUC President – CEO

cc: T. Koziatek, VP of Sales
R. Fernandez, Regional Sales Rep.
D. Stockdale, Area Sales Rep.
S. Moros, Bid Coordinator

Village of Palm Springs:

Customer: _____

By: _____

Title: _____

Date: _____

8350 NW 93 Street
Miami, Florida 33166
AUC **Medley**- 305-888-2623

14770 Old Saint Augustine Road
Jacksonville, FL 32207
AUC **Jacksonville**- 904-619-6180

9501 Rangeline Road
Ft. Pierce, Florida 34987
AUC **Ft. Pierce**- 772-464-6195

30 Neil Gunn Drive
Ellisville, MS 39437
AUC **Ellisville** - 601-477-2550

9545 Rangeline Road
Ft. Pierce, Florida 34987
ANT 1 **Ft. Pierce** - 772-464-6195

204 SCM Road
Brunswick, GA 31525
AUC **Brunswick** - 912-267-9470

2815 Inland Transport St.
Palmetto, Florida 34221
ANT 2 **Manatee** - 941-803-4457



Charlotte County Purchasing Division
18500 Murdock Circle, Suite 344
Port Charlotte, Florida 33948-1094

Phone 941.743.1378

NOTICE OF AVAILABILITY OF BID SPECIFICATIONS

REQUEST FOR BIDS
CHARLOTTE COUNTY, FLORIDA

The County of Charlotte will be receiving sealed bids at the Purchasing Division, Suite 344, Charlotte County Administration Center, 18500 Murdock Circle, Port Charlotte, FL 33948-1094, for:

BID NO. 2024000547
PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION– ANNUAL CONTRACT

This is an annual contract for the purchase of sodium hypochlorite solution to be utilized by the Utilities Department.

There will not be a Pre-Bid Conference for this project. Please send all questions to the email address below.

BID OPENING: 2:00 p.m., (EST), AUGUST 14, 2024
PURCHASING DIVISION CONFERENCE ROOM

Bid Documents may be obtained by accessing the Charlotte County Purchasing Division's website at <https://purchasingbids.charlottecountyfl.gov> under "Purchasing Bids Online", document number 245472. Any questions can be answered by contacting Rhiannon Mills, Senior Contract Specialist at 941.743.1374 or email: Rhiannon.Mills@CharlotteCountyFl.gov.

OPTIONAL ELECTRONIC BID SUBMISSIONS: If your firm would like to submit your bid electronically, please visit <http://bit.ly/3TYAyKa> and follow given instructions.

Notice of Availability
Posted: 08/06/2024



Charlotte County Purchasing Division
18500 Murdock Circle, Suite 344
Port Charlotte, Florida 33948-1094

Phone 941.743.1378
Fax 941.743.1384

STATEMENT OF NO BID

If you **do not** intend to bid on this commodity/service, please return this form to the above address immediately. If this statement is not completed and returned, your company may be deleted from the Charlotte County Vendors' list for this commodity/service.

We the undersigned, have declined to bid on requested commodity/service **Bid #2024000547, PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION – ANNUAL CONTRACT**, for the following reason(s):

- _____ Specifications too "tight", i.e. geared toward one brand or manufacturer only (explain below).
- _____ Insufficient time to respond to the Invitation to Bid.
- _____ We do not offer this product or service.
- _____ Our schedule would not permit us to perform.
- _____ Unable to meet bond/insurance requirements.
- _____ Unable to meet specifications.
- _____ Specifications are unclear (explain below).
- _____ Remove us from your vendors' list for this commodity/service.
- _____ Other (specify below).

Remarks: _____

Company Name: _____

Contact Person (typed or printed): _____

Contact Person Signature: _____

Phone: _____ Fax: _____

E-Mail Address: _____

Note: Statement of No Bid may be emailed to Rhannon.Mills@CharlotteCountyFL.gov

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ANNUAL CONTRACT
BID NO. 2024000547

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INSTRUCTIONS TO BIDDERS PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION - ANNUAL CONTRACT BID NO. 2024000547
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IB-01 QUALIFICATIONS OF BIDDERS: It is the intent of the County to award this contract to the lowest responsive, responsible bidder, qualified by experience and solvency, with proven reliability and the ability to supply all items/services within a reasonable time frame acceptable to Charlotte County. Bidder may be required to supply information in writing at the request and discretion of the County prior to award of bids, in order to verify above requirements.

IB-02 GENDER DESIGNATION: The County and the Contractor are treated throughout these Documents as if each were of the singular number and masculine gender.

IB-03 EXAMINATION OF DOCUMENTS/SITE: Prior to the submission of a bid form, bidders shall carefully examine the bid package, including the Request for Bids, Instructions to Bidders, Technical Specifications & Conditions, Special Provisions, General Provisions, Insurance Requirements, Bid Form and all other related bid documents, including all modifications thereof, incorporated in the bid package, plus fully informing themselves as to all existing conditions and limitations that affect the work to be performed under this contract.

Discrepancies, omissions, or questions about the intent of the documents should be submitted to the Purchasing Division in written form as a request for interpretation no later than five (5) calendar days prior to bid opening (or shall be verbally addressed at the pre-bid conference, if applicable).

Interpretations of any of the bid documents or the project will be in the form of a written addendum to the documents which will be posted on the purchasing website. Receipt by each bidder of any addenda must be acknowledged on the bid form, indicating the addendum number and date of issue, therein becoming a part of the contract. No oral explanations shall be binding. The County will attempt to notify all prospective bidders of addenda issued to the bidding documents; however, it shall be the responsibility of the bidder, prior to submitting their bid, to determine if addenda were issued, acknowledging and incorporating it into their bid.

Examination of Site: Prior to submitting a bid form, each bidder shall examine the site and all conditions thereon. All bid forms shall be presumed to include all such existing conditions as may affect any work to be done on this project. Failure to familiarize himself with such conditions will in no way relieve the successful bidder from the necessity of furnishing any materials or performing any work that may be required to complete the work in accordance with the drawings and Specifications.

IB-04 PREPARATION AND SUBMISSION OF BID FORM REQUIREMENTS: Bids shall be submitted on the bid form supplied by the County, or duplication thereof and attached thereto, or as specified. Bidders shall acknowledge receipt of any addenda received during the bid period. Any expense incurred in making bids is to be borne by the Bidder.

Each bid must give the full business address of the bidder and state whether bidder is an individual, corporation or partnership. Bid Forms by a corporation must be signed in the name of the corporation, followed by the original signature and designation of the officer or other person authorized to bind the corporation. Bid Forms by partnerships shall show the names of all partners. The partnership title shall follow the original signature of each partner.

Any erasures or other corrections in the bid form must be explained or noted over the signature of the bidder. Bid Forms containing any conditions, omissions, unexplained erasures, alterations, or irregularities of any kind may be rejected by the County.

Bid documents shall be submitted sealed. The package containing the bid must be clearly marked with the bid number and the name and business address of the bidder. Bids not received by the established bid opening shall **not** be considered and will be returned.

Bid Guarantee - The bid shall be signed where indicated guaranteeing that the bidder will not withdraw its bid for a period of 60 days after the scheduled time for opening of bids.

IB-05 WITHDRAWAL OF BIDS: Bids may be withdrawn by request of the bidder prior to the scheduled opening. Error or negligence on the part of the bidder in preparing the bid confers no right for withdrawal of the bid after it has been opened.

IB-06 BID TABULATIONS: In accordance with Florida Statutes, Section 119(1)(b)2: Sealed bids, proposals, or replies received by an agency pursuant to a competitive solicitation are exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution until such time as the agency provides notice of an intended decision or until 30 days after opening the bids, proposals, or final replies, whichever is earlier. Those bidders interested in receiving a copy of the results of this bid once they are released may do so by visiting our website at <https://purchasingbids.charlottecountyfl.gov> under "Purchasing Bids Online", Document Number 245474. No information regarding the submittal will be divulged over the telephone.

IB-07 RESERVED RIGHTS: The County reserves the right to accept or reject any and/or all bids, to waive irregularities and technicalities, and to request resubmission of bids. Also, the County reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduced requirements of the County. Any sole response received may be rejected by the County depending on available competition and timely needs of the County.

IB-08 FORM OF CONTRACT: The submitted Bid Form signed by the bidder, together with complete bid package furnished by the County, shall constitute a binding contract. The bidder shall be required to perform according to the bidder's submitted Bid Form and the County's bid package when a purchase order signed by the Senior Division Manager - Purchasing or his/her designee is transmitted to bidder. The transmitted purchase order shall serve as both a Notice of Acceptance and Notice to Proceed to the bidder. Failure to comply with the conditions set forth in the purchase order shall be deemed a breach of contract subjecting the bidder to forfeiture of the bid bond or other posted security and other possible penalties.

IB-09 NOTICE TO PROCEED/DELIVERY: After award of bid, a notice to proceed/purchase order shall be issued bearing the terms of the contract/delivery. Upon receipt of purchase order, successful bidder/Contractor shall acknowledge receipt of same by either fax or mail and shall commence processing of order so that the agreed upon delivery date will be satisfied.

IB-10 PAYMENT: Request for payment must be submitted to the Charlotte County Purchasing Division on a form approved by the County. All invoices will be paid in accordance with the Local Government Prompt Payment Act (F.S. 218.74).

IB-11 PERFORMANCE EVALUATION: At the end of the contract, if awarded, the receiving department will evaluate the successful bidder's performance. This evaluation will become public record.

IB-12 ARITHMETIC DISCREPANCIES: For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the bid forms submitted by the bidder:

- A. Obviously misplaced decimal points will be corrected.
- B. In case of discrepancy between unit price and extended price, the unit price will govern. Apparent errors in extension will be corrected.
- C. Apparent errors in addition of lump sum and extended prices will be corrected.

For the evaluation purposes, the County will proceed on the assumption that the bidder intends its bid be evaluated on the basis of the unit prices, extensions, and totals arrived at by resolution of arithmetic discrepancies (above). The bid will be so reflected on the bid tabulation.

IB-13 DESCRIPTIVE INFORMATION: Unless otherwise specifically provided in the documents, all equipment, materials and articles incorporated in the work covered by this bid are to be new and of the most suitable grade for the purpose intended. Unless specifically provided in the bid documents, references to equipment, material, article or patented process, by trade name, make or catalogue number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. If the bidder wishes to make a substitution, the bidder shall furnish the name of the manufacturer, the model number, and other identifying information necessary to aid the County in evaluating the substitution. Substitutions are subject to County approval. Substitutions shall be approved only if determined by the County to be equivalent to the specifications. Substitutions are subject to disqualification if not approved by the County.

IB-14 REGULATIONS: It shall be the responsibility of each bidder to assure compliance with any OSHA, EPA, and/or other federal, state, or local statutes, ordinances, rules, regulations or other requirements, as each may apply. Bidder must be authorized to transact business and be properly licensed in the State of Florida. Laws and regulations of the State of Florida and ordinances and regulations of Charlotte County will apply to any resulting contract.

IB-15 CODE OF ETHICS: With respect to this bid, if any bidder violates or is a party to a violation of the State of Florida/Florida Statutes, Chapter 112, Part III, Code of Ethics for Public Officers and Employees, such bidder may be disqualified from furnishing the goods or services for which the bid is submitted and shall be further disqualified from submitting any future bids for goods or services for Charlotte County.

IB-16 COLLUSION: By offering a submission to this invitation, the bidder certifies he has not divulged to, discussed or compared his bid with other bidders and has not colluded with any other bidder or parties to this bid whatsoever. Also, bidder certifies, and in the case of a joint bid each party thereto certifies as to his own organization, that in connection with this bid:

- any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and or cost data, with any other bidder or with any competitor;
- any prices and/or cost data quoted for this bid have not been knowingly disclosed by bidder and will not knowingly be disclosed by bidder prior to the scheduled opening directly or indirectly to any other bidder or competitor;
- no attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition;
- the only person or persons interested in this bid, principal or principals is/are named therein and that no person other than therein mentioned has any interest in this bid or in the contract to be entered into; and
- no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee excepting bona fide employees or established commercial agencies maintained by the Purchaser for the purpose of doing business.

IB-17 SUBCONTRACTORS: Bidders are to complete the attached Subcontractors form. This form must be completed and included with the bid form. If bidder does not have a subcontractor, insert "to be determined". When source or subcontractor is determined, selection will be subject to County approval.

IB-18 DRUG FREE WORKPLACE FORM: It is strongly suggested that the attached Drug Free Workplace Form be signed and returned to this office with the bid. In the event of a tie bid, the presence of a valid and accurate form may be used as a basis for awarding the Contract.

IB-19 PUBLIC ENTITY CRIMES: In accordance with Florida Statutes Sec. 287.133(2)(a), "A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods/services to a public entity, may not submit a bid on a contract with a public entity for construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a Contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for Category Two, for a period of 36 months from the date of being placed on the convicted vendor list".

IB-20 CANCELLATION/TERMINATION OF CONTRACT: It is the intent of the County to contract with a bidder who can provide prompt and convenient services. The County shall have the right to cancel, terminate or suspend any awarded contract, in whole or in part, by providing the successful bidder/Contractor 30 days written notice.

It is expressly understood by the County and the bidder that funding for any successive fiscal years of this contract is contingent upon appropriation of monies by the Charlotte County Board of County Commissioners. In the event that funds are not available or are not appropriated, the County reserves the right to terminate any awarded contract. The County will be responsible for payment of any outstanding invoices and work completed by the successful bidder/Contractor prior to such termination.

Pursuant to Section 287.135(3)(a)4 of the Florida Statutes, Charlotte County may, at its sole option, terminate any Agreement valued at \$1,000,000 or more if the Contractor is found to have submitted a false certification, has been placed on the *Scrutinized Companies with Activities in Sudan List*, or the *Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List*, or has been engaged in business operations in Cuba or Syria or a boycott of Israel.

Pursuant to Section 287.135(3)(b) of the Florida Statutes, Charlotte County may, at its sole option, terminate any Agreement in any amount if the Contractor is found to have been placed on the *Scrutinized Companies that Boycott Israel List*, or is engaged in a boycott of Israel.

IB-21 INDEMNITY: After notification of award, the successful bidder shall indemnify and hold harmless the County, its officers, employees, agents and volunteers, from action, including any court costs or attorneys' fees arising from, or as a result of, any act or omission by bidder, its officers, employees, licensees, invitees, Contractors, agents or assignees, in the performance of the services and/or the delivery of goods for which the resulting agreement was entered into. Bidder agrees that the first ten dollars (\$10.00) of compensation received under the resulting agreement represents specific consideration for the indemnification obligation. Nothing in the award, resulting agreement, contract or Purchase Order shall be deemed to affect the rights, privileges and immunities of the County as set forth in Florida Statute 768.28.

IB-22 TAXES: Charlotte County is exempt from Federal Excise and State Sales Taxes. The bidder shall assume liability for Local, State, or Federal Tax that is applicable to the work.

IB-23 EQUAL EMPLOYMENT OPPORTUNITY: Charlotte County, in accordance with the provisions of Title VI of The Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Dept. of Commerce, issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this bid, minority business enterprises will be afforded full opportunity to submit bids and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

All bidders are hereby notified that the successful bidder (Contractor) must and shall comply with the Civil Rights Act of 1964, the Age Discrimination in Employment Act, the Rehabilitation Act of 1973, the Americans with Disabilities Act and the Florida Civil Rights Act, all as amended. Specifically, Contractor agrees that:

- No person shall, on the grounds of race, color, sex, religion, age, disability, national origin or marital status, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program, activity or service funded through this Contract.
- Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability, national origin or marital status. Contractor agrees to post in a conspicuous place, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- Contractor will, in all solicitations or advertisements regarding program activities, services provided or applications for employment, state that all qualified applicants will receive consideration for services or employment without regard to race, color, religion, sex, age, disability, national origin or marital status.
- County may require Contractor to submit reports as may be necessary to indicate non-discrimination. County officials will be permitted access to Contractor's books, records, accounts and other sources of information and its facilities as may be pertinent to ascertain compliance with non-discrimination laws.

It is expressly understood that County shall have the right to terminate the Contract upon receipt of evidence of discrimination.

IB-24 ASSIGNMENT: This agreement, or any interest herein, shall not be assigned, transferred or otherwise encumbered, under any circumstances by Contractor without the prior written consent of the County.

IB-25 UNAUTHORIZED ALIEN WORKERS: Charlotte County will not intentionally award publicly-funded contracts to any Contractor who knowingly employs unauthorized alien workers, constituting a violation of the employment provisions contained in 8 U.S.C. Section 1324a [Section 274A of the Immigration and Nationality Act ("INA")]. The County shall consider employment by any Contractor of unauthorized aliens a violation of Section 274A of the INA. Such violation by the Contractor of the employment provisions contained in Section 274A of the INA shall be grounds for termination of this Agreement by the County. In addition, pursuant to Section 448.095 of the Florida Statutes, all persons or firms entering into contracts with Charlotte County are required to register with, and use, the E-Verify system of the U.S. Department of Homeland Security to electronically verify the employment eligibility of all newly hired employees. The County may terminate this Agreement for failure on the part of the Contractor to use E-Verify. Contract termination for failure to use E-Verify is not considered a breach of contract pursuant to s. 448.095(2)(c)3, *Fla. Stat.*

IB-26 EMPLOYEE BACKGROUND CHECK: If an owner, except a stockholder in a publicly traded corporation, or an employee of the Contractor has been convicted of any offenses requiring registration as a sexual offender or sexual predator, regardless of the location of conviction, the Contractor shall ensure that the offender's or predator's work on the project is

consistent with the terms of his probation and registry requirements.

IB-27 PUBLIC RECORDS CLAUSE TO CONTRACTORS “ACTING ON BEHALF OF THE COUNTY”: Pursuant to Section 119.0701 of the Florida Statutes, Contractors acting on behalf of the County must comply with the public records laws, specifically: a) keep and maintain public records required by the County to perform the contracted services; b) upon request from the County’s custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 of the Florida Statutes or as otherwise provided by law; c) ensure that public records that are exempt or confidential from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract; and d) upon completion of the contract, keep and maintain all public records required by the County to perform the service, and meet all applicable requirements for retaining public records.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR’S DUTY TO RETAIN AND PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE COUNTY’S CUSTODIAN OF PUBLIC RECORDS AT (941) 743-1441, E-MAIL TO RECORDS@CHARLOTTECOUNTYFL.GOV, 18500 MURDOCK CIRCLE, BLDG. B, Suite 109, PORT CHARLOTTE, FLORIDA 33948.

IB-28 SOCIAL, POLITICAL, OR IDEOLOGICAL INTERESTS: Charlotte County will not request documentation of, or consider a vendor’s social, political, or ideological interests when determining if the vendor is a responsible vendor. Charlotte County does not give preference to vendors based on social, political, or ideological interests.

TECHNICAL SPECIFICATIONS & CONDITIONS
PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION – ANNUAL CONTRACT
BID NO. 2024000547

TS-01 PURPOSE: It is the intent of Charlotte County (hereinafter referred to as County) to purchase sodium hypochlorite solution on an “as required” basis. Chemicals shall be primarily utilized by the Utilities Department (hereinafter referred to as Utilities) and shall be delivered to various job sites within the County. Any water or wastewater system that Utilities acquires through contract operations or direct purchase shall receive the same price structure.

Name Brand specifications are offered as a guide only, and not a competitive limiting device. Other manufacturers (bidders of similar specified items) are encouraged to submit competitive bids. The County will accept an equivalent or better for all items listed. Equivalents are subject to verification by County prior to acceptance of same.

For purposes of this Bid, the term “bidder” shall be defined as the company submitting the proposal and shall include all subsidiaries, affiliates, and subcontractors. As such, any requested documentation shall apply to all subsidiaries and affiliated companies as well as any subcontractors. If a company is using a subcontractor to either manufacture or deliver the product, the requested items (e.g., references, terminations, and safety incidents) shall apply to the subcontractor as well.

TS-02 STANDARDS: It shall be the responsibility of each supplier to assure compliance with any Occupational Safety and Health Administration, (OSHA), Environmental Protection Agency (EPA), National Safety Foundation International (NSF) and other Federal, State, and/or Local rules, regulations, or other requirements, as each may apply. Where AWWA Standards are applicable to any chemical listed herein, the same shall be in compliance with the latest revisions thereof. Florida Statutes, Chapter 442 Right-To-Know Law, mandates on-site Material Safety Data Sheets (MSDS) for all toxic substances. All bidders are required to submit MSDS with their Bid Forms.

TS-03 BID PRICES/TERMS OF CONTRACT: The contract resulting from this bid request shall be valid from October 1, 2024, through and including September 30, 2025. If mutually agreed, this contract may be extended annually for up to one (1) additional one-year term, at the same prices, terms and conditions.

Bidders shall bid unit prices, F.O.B. destination. These prices shall be considered firm for the duration of the contract and will be used for payment, including transportation, labor, equipment, and incidentals used in delivering supplies and materials to the point of delivery.

Storage tanks, when required for materials offered under this bid, shall be furnished by the successful bidder(s), on a no-cost-to-buyer loan basis. Charlotte County shall not pay a cylinder or container fee for late returns.

Estimated quantities are provided as a courtesy, cannot be guaranteed, and are not meant to imply actual quantities to be purchased. The County will not knowingly disclose an estimate disproportionate to what is anticipated or expected to be needed within a twelve-month period. Current contract prices can be obtained by accessing the Charlotte County Purchasing Division’s website at <https://purchasingbids.charlottecountyfl.gov> under “Purchasing Bids Online”, Search History. Historical searches can only be executed by keying in all or part of the project title. The previous Contract numbers for this project is **23-617** and is entitled “**WATER AND WASTEWATER CHEMICALS – ANNUAL CONTRACT**”.

TS-04 DELIVERY: Successful bidder(s) shall be strictly held to delivery date. In the event chemicals are not delivered by date specified, the County reserves the right to withdraw from contracts of purchase, and either award to the next lowest bidder or re-bid the specific product.

All deliveries shall be made between 7:00 a.m. and 3:00 p.m., Monday through Friday, excluding legal holidays, unless otherwise agreed by the receiving department prior to attempting to make a delivery. No additional delivery charges may be imposed for additional delivery attempts resulting from the successful bidders' failure to make contact with the representative at delivery site. Bulk deliveries require two (2) hours' notice of arrival from the supplier prior to delivery.

Successful bidder(s) is advised to visit each delivery point without inconvenience to the County, to assure that his equipment is compatible with the County's unloading and storage facilities. Bidders shall indicate on the Bid Form their methods for off-loading the chemical at each location (example: pallet of chemical by use of a pallet jack or forklift). Such methods must be made known in advance as the County wishes to contract with suppliers that have safe, efficient techniques for off-loading established. It is the successful bidders' full responsibility to off-load all deliveries and place in County storage facilities.

Certified weight tickets are required for each delivery. Successful bidder(s) will assure separate delivery tickets for each delivery and will obtain authorized signatures from County's employees. At least one (1) copy of the delivery ticket and corresponding weight ticket shall be left with County Employee on each delivery.

The Contractor shall be responsible for any spills resulting from the failure of its or its subcontractor's delivery equipment or from failure of attendant delivery personnel in the proper performance of their duties. Proper performance shall require attendant delivery personnel's constant inspection and observation of unloading operations and knowledgeable response to problems or emergencies, which would most commonly be expected to occur. The County reserves the right to refuse any and all deliveries made with equipment that is poorly maintained.

The tanks or trailers shall be clean and free of residue that may contaminate the Contractor's product or impede the unloading process. It is the Contractor's responsibility to verify the cleanliness of the transporting equipment before loading. All appurtenant valves, pumps, and discharge hoses used for the delivery of sodium hypochlorite shall be supplied by the Contractor and shall be clean and free from contaminating material. The County may reject a load if the equipment is not properly cleaned. The Contractor shall furnish a County approved, leak-free connection device between the trailer and the County's intake receptacle. The Contractor shall observe the entire filling operation at each delivery site and shall immediately report any spills caused during the filling operations. The Contractor shall take immediate and appropriate actions to clean up any spilled liquid sodium hypochlorite. If the spill is not cleaned up, the County will hire a certified hazardous material handling company to clean up the spill, and the cost of such service will be charged to the Contractor and deducted from the amount due to the Contractor. If the County's unloading equipment such as pipe, valves or level indication and alarms should fail and the spillage is not the fault of the Contractor or its subcontractor, the Contractor shall be relieved of cleanup of the spill.

Each individual requirement will be covered by a Purchase Order. Separate invoicing reflecting Purchase Order Numbers will be required. Should successful bidder(s) become unable to perform due to breakdown, product scheduling, lack of product or equipment, County may, as needed, purchase from other sources. The successful bidder(s) shall be held liable for the difference of cost between awarded price and cost of the required purchase from another source. Deliveries shall be made in tank truckloads as called for in these specifications. Chemicals shall be delivered to the following various locations throughout the County: **(Sites marked with an asterisk (*) are not accessible with a large tanker and shall have delivery made by a truck no longer than 26 feet in length.)**

*Gulf Cove Water Booster Station # 3
12050 Van Lenten Boulevard (Gillot & Van Lenten)
Port Charlotte, Florida 33953

*Walenda Reclaimed Water Booster Station
17180 Walenda Avenue
Port Charlotte, Florida 33954

*Walenda Water Booster Station #4
17180 Walenda Avenue
Port Charlotte, Florida 33954

O'Hara Booster Station#10 (Estimated Service late 2026)
18719 O'Hara Drive
Port Charlotte, Florida 33948

Leachate Treatment Plant
29751 Zemel Road
Punta Gorda, Florida 33955

Rotonda Water Booster Station #6
46 Parade Circle
Rotonda, Florida 33946

East Port Reclamation Facility
3100 Loveland Boulevard
Port Charlotte, Florida 33980

*Ingraham Injection Station #7
14276 Ingraham Boulevard
Port Charlotte, Florida 33981

Rotonda Wastewater Plant
3740 Kendall Road
Rotonda West, Florida 33947

Utilities Service Center
25550 Harborview Road
Port Charlotte, Florida 33953

West Port Wastewater Plant
15005 Cattle Dock Point Road
Port Charlotte, Florida 33981

Burnt Store Wastewater Plant
17430 Burnt Store Road
Punta Gorda, Florida 33950

Burnt Store Reverse Osmosis Plant
17430 Burnt Store Road
Punta Gorda, Florida 33950

*Golf Course Water Booster Station #2
22339 Glen Eagles Drive
Port Charlotte, Florida 33952

*Eagle Street Reclaimed Water Booster Station
Lorenzo Avenue & Eagle Street
Port Charlotte, Florida 33952

*Englewood Interconnect Booster #8
6369 Richledge Street
Englewood, Florida 34224

Successful bidder(s) must make deliveries within 96 hours after notification. If the successful bidder(s) cannot meet the requirements, the County shall purchase from another source until successful bidder(s) is able to meet the requirements. Successful bidder(s) shall be responsible for the difference of any costs incurred as a result.

TS-05 IDENTIFICATION: Each shipment shall exhibit a form of identification. Shipments shall be marked legibly with net weight of contents, manufacturer name, and brand name. Failure to comply may result in rejection of shipment at no cost to the County.

TS-06 SAFETY MEASURES: The successful bidder(s) shall provide an appropriate safe handling training course, within the first three (3) months of the contract, to all current Charlotte County user department personnel. Successful bidder(s) shall be available to conduct "refresher" courses or new employee training at six-month intervals throughout the duration of the contract.

Bidder(s) shall assure the County that each delivery truck will have the following (exceptions to these provisions must be noted on Bid Forms):

- A capable CDL licensed driver trained to properly handle chemical shipments and use and operation of equipment (if applicable).
- Self-Contained Breathing Apparatus (SCBA) (if applicable).
- Repair Kits for use on a 1-ton and/or 150-pound cylinder (if applicable).

Successful bidder(s) guarantees that when, in the opinion of the County, an emergency condition exists, trained emergency crew(s) and proper equipment will be immediately available on a 24-hour basis if the County places a telephone call to the number provided by the successful bidder(s).

Bidder(s) shall supply, in writing, an emergency spill response plan with emergency response personnel names and contact telephone numbers and 24-hour contact numbers. Emergency Response Plans must be detailed and proficient. Bidder(s) shall supply in writing, an updated Emergency Response Plan, at least once per year at the time of contract renewal. The County reserves the right to reject bidder(s) who fail to submit a comprehensive, emergency-spill response plan.

Proper spill response notifications procedure along with any forms as required by all local, state or federal regulatory agencies shall be supplied by the successful bidder(s) and any subcontracted delivery companies. This requirement in no way relieves the successful bidder(s) of his responsibility to notify the proper regulatory agencies of a spill incident. In the event of a spill or leak, the successful bidder(s) shall provide the necessary personnel to respond to and work with the Charlotte County Fire/Rescue or designated Hazardous Materials Response Team. The successful bidder(s) shall manage and oversee "After Event" clean-up efforts. Should a spill or leak caused by successful bidders' personnel, equipment, or method of delivery occur, successful bidder(s) shall immediately comply with all applicable terms and conditions of the Reauthorization Act of 1986, 42 USCG 11001, et. seq. (SARA) and the Florida Hazardous Materials Emergency Response and Community Right-to-Know Act of 1988, Chapter 252, Part II, Florida State Statutes. The responsibility of compliance with Federal, State, and/or County Rules and Regulations regarding vendor caused spills or releases shall rest with the successful bidder(s). Successful bidder(s) agrees to hold Charlotte County harmless for failure to properly report and/or comply with this provision.

TS-07 SODIUM HYPOCHLORITE SOLUTION NaOC_l 12% (Chlorine Bleach): Sodium Hypochlorite (Chlorine Bleach) is used in water and wastewater treatment facilities. All specifications are to be in accordance with AWWA Standard B300-04 regarding Sodium Hypochlorite with the following specifics and additions: Sodium Hypochlorite (Chlorine Bleach) shall be available for bulk delivery in quantities of at least 1,800 gallons with a maximum of 4,200 gallons, per delivery, at the East Port Facility. Quantities of 1,500 gallons or less may be delivered to other Utilities water and wastewater treatment facilities as required.

Each prospective bidder shall submit a 1,500 ml "chilled" sample of their product representative of their manufacturing process to one of the approved testing laboratories listed below for analysis.

NovaChem Laboratories (formerly Novatek)
5172 College Corner Pike (PO Box 608)
Oxford, Ohio 45056
Ph: 513-523-3605
Fax: 513-523-4025

Thornton Laboratories
1145 East Cass Street
Tampa, Florida 33602
Ph: 813-223-9702
Fax: 813-223-9332

Envirodyne, Inc.
4805 N.W. 2nd Avenue
Boca Raton, Florida 33431
Ph. 800-713-7737

KSA Environmental Laboratory, Inc.
10200 USA Today Way
Miramar, Florida 33025

Note: Concentration testing for iron and transition metal ions for nickel and copper in sodium hypochlorite is a difficult test and requires high levels of knowledge and experience for accurate and repetitive test results.

Sampling and testing shall be in accordance with EPA and AWWA B300-04 standards and in accordance with the documents titled: "*The Weight Percent Determination of Sodium Hypochlorite, Sodium Hydroxide, And Sodium Chlorate in Liquid Bleach*" and "*Suspended Solids Quality Test for Bleach Using Vacuum Filtration*", distributed by Powell Fabrication and Manufacturing, Inc. Should Bidder request to use another laboratory, that laboratory must be certified by the National Environmental Laboratory Accreditation Conference (NELAC) and must be able to meet the following Minimum Detection Limits (MDL): (1) Metals .02 mg/L; (2) Bromate .1 mg/L; (3) Chlorate 20 mg/L; (4) Perchlorate 20 mg/L and (5) Chlorine/Excess Caustic 0.1%. Bidder shall provide proof of current NELAC certification and laboratory analysis shall specify the MDL if a non-approved laboratory is used.

The laboratory shall ascertain whether the bidder's product is in compliance with this specification for available chlorine, 12% sodium hypochlorite, excess caustic, iron, copper, nickel, chlorate, perchlorate, bromate and suspended solids (based on Filter Test time). The cost of the analysis shall be borne by bidder. Failure to submit a sample or meet the requirements of the Specification may result in rejection of bid. Bidders are to submit results of the sample tests with their bid.

Further, County reserves the right to take samples from bidder's other customers to ensure that the bidder's sample and delivery equipment is in compliance with all the requirements of this specification and such a sample shall be judged representative of the bidder's quality. In such event, County shall bear the cost of any analysis. Based on this compliance check, failure to meet the requirements of this specification may result in rejection of bid.

Each prospective bidder shall submit a list of at least three (3) references to include phone numbers that use or have used its sodium hypochlorite for water or wastewater treatment in the past two (2) years. The reference list shall list actual users at the water and wastewater plants along with purchasing agents. Additionally, each bidder shall provide the names of any customers where its contract was terminated early (e.g., debarred) for safety, quality or service issues for any product it supplies over the past five (5) years. The bidder shall also provide a detailed listing of all accidents, incidents, releases, spills, and National Response Center Notifications ("safety incidents") for all chemicals it delivers or manufacturers for the past five (5) years. Failure to disclose references, terminations or safety incidents may result in rejection of bid. For purposes of this bid, the term "Bidder" shall be defined as the company submitting the proposal and shall include all subsidiaries, affiliates, and subcontractors. As such, any requested documentation shall apply to all subsidiaries and affiliated companies as well as any subcontractors and all of its manufacturing or delivery points. In the event that a company is using a subcontractor to either manufacture or deliver the product, the requested items (e.g., references, terminations, and safety incidents) shall apply to the subcontractor as well.

At the sole discretion of the County, the Contractor's delivery personnel (driver) may be asked to collect a sample of hypochlorite before the shipment is unloaded. In this case, the County will supply the sample container and the driver shall collect the sample from the tank truck and turn it over to the County. The sample shall be considered representative of the lot.

The County reserves the right to subject samples of the hypochlorite to quick analyses to ensure that it meets basic conditions of the specification with respect to specific gravity, weight percent of sodium hypochlorite, sodium hydroxide, and suspended solids. Any lot tested by the County that fails to comply with the specifications shall constitute grounds for rejection of that lot. No payment shall be made for hypochlorite that is rejected. The Contractor or its subcontractors shall allow 45 minutes for this testing to be completed. If testing cannot be completed within the 45-minute period, the County shall allow the Contractor to unload the shipment.

Hypochlorite supplied under this contract shall be tested and certified as meeting these specifications and those of the American National Standards Institute/National Sanitation Foundation Standard 60 (ANSI/NSF Standard 60), Drinking Water Treatment Chemicals Health Effects.

It is the responsibility of the supplier to inform the County that NSF certification has been revoked or lapsed within 24 hours of the time the supplier receives verbal or written notification. Loss of certification shall constitute sufficient ground for immediate termination of the contract between County and Contractor.

Hypochlorite delivered under this contract shall have a minimum of 120 Grams per Liter (GPL) available chlorine equivalent to 10.85 percent sodium hypochlorite by weight. Product shall be a clear straw-colored liquid with no visible cloudiness, impurities, or sediment.

Hypochlorite delivered under this contract shall have a minimum of 0.15 percent by weight sodium hydroxide and a maximum of 0.4 weight percent sodium hydroxide.

Hypochlorite delivered under this contract shall meet the following containment concentration limits:

Iron	< 0.3 mg/L
Copper	< 0.03 mg/L
Nickel	< 0.03 mg/L
Chlorate	< 2,000 mg/L
Bromate	< 20 mg/L
Filter Test Time	<3 minutes
Perchlorate	<20 mg/L

The delivery time of the shipment shall not exceed 72 hours from the time of manufacture of the product.

The Contractor shall be responsible for any spills resulting from the failure of its or its subcontractor's delivery equipment or from failure of attendant delivery personnel in the proper performance of their duties. Proper performance shall require attendant delivery personnel's constant inspection and observation of unloading operations and knowledgeable response to problems or emergencies, which would most commonly be expected to occur.

The tanks or trailers shall be clean and free of residue that may contaminate the Contractor's product or impede the unloading process. It is the Contractor's responsibility to verify the cleanliness of the transporting equipment before loading. All appurtenant valves, pumps and discharge hoses used for the delivery of sodium hypochlorite shall be supplied by the Contractor and shall be clean and free from contaminating material.

The County may reject a load if the equipment is not properly cleaned. The Contractor shall furnish a County approved, leak-free connection device between the trailer and the County's intake receptacle. The Contractor shall observe the entire filling operation at each delivery site and shall immediately report any spills caused during the filling operations. The Contractor shall take immediate and appropriate actions to clean up any spilled liquid sodium hypochlorite. If the spill is not cleaned up, the County will hire a certified hazardous material handling company to clean up the spill, and the cost of such service will be charged to the Contractor and deducted from the amount due to the Contractor. If the County's unloading equipment such as pipe, valves or level indication and alarms should fail and the spillage is not the fault of the Contractor or its subcontractor, the Contractor shall be relieved of cleanup of the spill. The suspended solids in the sodium hypochlorite delivered under this contract shall be minimized and the shipments delivered shall achieve a filtration time of less than three (3) minutes for 1000 ml when applying the "*Suspended Solids Quality Test for Bleach Using the Vacuum Filtration*" Method developed by Novatek.

Because of security and safety concerns, all delivery vehicle drivers shall be U.S. citizens and have a proper commercial driver's license with a Hazardous Material endorsement. Contractor's drivers shall display its driver's license and whenever challenged by Purchaser during the delivery. In addition, Contractor shall supply purchaser a "CD" with digital photographs of all of its delivery drivers with names imposed and shall send out an updated CD within 24 hours of any changes to its drivers. Purchaser shall use the CD to verify whether driver is actually an employee of the Contractor. Failure to show proper license or failure of driver to be listed on the CD provided to Purchaser shall result in rejection of delivery and could result in termination of the Contractor's supply agreement.

Delivery Reports: A certified report from the manufacturer shall be submitted for each sodium hypochlorite delivery to the County. The report shall contain the following data:

- date and time of manufacture
- percent by weight
- sodium hypochlorite
- excess sodium hydroxide
- specific gravity (referenced to a temperature)
- suspended solids test time

No deliveries will be accepted by the County unless accompanied by said certified laboratory report for the specific batch of sodium hypochlorite delivered showing the above data and that it conforms to the required specifications.

Quarterly Reports: At the start of the contract and every 90 days, the Contractor shall utilize an outside testing agency acceptable to both the County and the Contractor to analyze a sample of the sodium hypochlorite delivered to the County. The Contractor shall supply the sample container and the driver shall collect the sample from the tank truck. This sample will be given to the County at the time of the sampling and the County will forward the sample to the approved authorized testing agency. Any failure to comply with the specifications shall constitute grounds for cancellation of the contract between County and Contractor.

The County reserves the right to subject samples of the hypochlorite to quick analyses to ensure that it meets basic conditions of the specification with respect to specific gravity, weight percent of sodium hypochlorite, sodium hydroxide, and suspended solids. Any lot tested by the County that fails to comply with the specifications shall constitute grounds for rejection of that lot. No payment shall be made for hypochlorite that is rejected. The Contractor or its subcontractors shall allow 45 minutes for this testing to be completed. If testing cannot be completed within the 45-minute period, the County shall allow the Contractor to unload the shipment.

Charges for the manufacturers certified report and all quarterly reports by outside testing agencies should be included in the bid price.

Should samples be required for bid evaluation, Bidders will be required to deliver 100 gallons to the County at a predetermined site at no charge to the County.

TS-08 CRITERIA FOR AWARD: The award of this bid shall be to the lowest responsive, responsible bidder(s) meeting or exceeding all of the specifications. Another consideration in the award of this bid will be the number of days required to deliver after receipt of purchase order.

In addition, the bid evaluation shall consider previous performance, safety, reliability and reference checks. Because of the hazardous nature of some products and the relatively short shelf-life of others, consideration shall be given to the bidder's safety record, reliability, and previous performance.

County reserves the right to reject the bid proposal of any bidder who has previously failed to perform properly, or on time, contracts of similar nature; or who is not in a position to satisfactorily perform the contract. If, after bid opening, the lowest bidder is deemed non-responsible by the County, such bidder shall receive written notice from the County of this determination. The bidder shall have five (5) business days from the date of this notice to dispute the determination and to provide to the County any additional information it deems relevant regarding the bidder's responsibility. The County shall make a final determination regarding the bidder's responsibility at the time of award of the contract.

INSURANCE REQUIREMENTS PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION – ANNUAL CONTRACT BID NO. 2024000547
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Contractor and subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

The insurance requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The County in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this Contract by the Contractor, his agents, representatives, employees, or subcontractors. Contractor is free to purchase such additional insurance as may be determined necessary.

A. MINIMUM SCOPE AND LIMITS OF INSURANCE - Contractor shall provide coverage with limits of liability not less than those stated below. An excess liability policy or umbrella liability policy may be used to meet the minimum liability requirements provided that the coverage is written on a "following form" basis.

1. Commercial General Liability – Occurrence Form (CG 00 01)

Policy shall include bodily injury, personal injury, property damage and broad form contractual liability.

Minimum Requirements:

- | | |
|---------------------|-------------|
| • General Aggregate | \$2,000,000 |
| • Each Occurrence | \$1,000,000 |

- a. The policy shall be endorsed to include the following additional insured language: "Charlotte County a political subdivision of the state of Florida and it officers, employees, agents and volunteers" shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor.
- b. Contractor's subcontractors shall be subject to the same minimum requirements identified above.
- c. Policy shall be endorsed for a waiver of subrogation against the Charlotte County.

2. Automobile Liability

Bodily injury and property damage for any owned, hired, and non-owned vehicles used in the performance of this Contract. Automobile liability must be written on a standard ISO form (CA 00 01) covering any auto (Code 1), or if Contractor has no owned autos, hired (Code 8) and non-owned (Code 9) autos.

Combined Single Limit (CSL)	\$1,000,000
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- a. The policy shall be endorsed to include the following additional insured language: "Charlotte County a political subdivision of the state of Florida and it officers, employees, agents and volunteers" shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor, including automobiles owned, leased, hired or borrowed by the Contractor".
- b. Contractor's sub-contractors shall be subject to the same minimum requirements identified in this section.
- c. Policy shall contain a waiver of subrogation against the Charlotte County.

3. Worker's Compensation and Employers' Liability

Workers' Compensation

Employers' Liability

Each Accident, bodily injury or disease	\$1,000,000
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- a. Policy shall contain a waiver of subrogation against the Charlotte County.
- b. Projects on or along navigable waters an endorsement for US Longshoremen and Harbor Workers and Jones Act is required.
- c. Contractor's sub-contractors shall be subject to the same minimum requirements identified in this section.
- d. If the contractor has no employees the contractor must submit to the County the Workers Compensation Exemption from the State of Florida.

Additional Insured – All policies, **except** for the Workers Compensation shall contain endorsements naming the County its officers, employees, agents and volunteers as additional insured with respect to liabilities arising out of the performance of services contained herein. The additional insured endorsements shall not limit the scope of coverage for the County to vicarious liability but shall allow coverage for the County to full extent provided by the policy, even if those limits exceed those required by this contract. Such additional insured coverage shall be at least as broad as Additional Insured (Form B) endorsement form ISO, CG 20 10 11 85 or both CG 20 10 and CG 20 37 if later revisions used.

Waiver of Subrogation Rights – The Contractor shall require the carriers of required coverages to waive all rights of subrogation against the County, its officers, employees, agents and volunteers. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. All general or auto liability insurance coverage provided shall not prohibit the Contractor and Contractor's employees or agents from waiving the right of subrogation prior to a loss or claim. The Contractor hereby waives all rights of subrogation against the County.

Policies Primary and Non-Contributory – For any claims related to this contract, the Contractor's insurance coverage shall be primary insurance as respects the County, its officers, employees, agents and volunteers. Any insurance or self-insurance maintained by the County, its officers, employees, agents or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

Severability of Interests – The Contractor agrees to ensure that coverage provided to meet these requirements is applicable separately to each insured and there will be no cross liability exclusions that preclude coverage for suits between the Contractor and the County or between the County and any other insured or additional insured under the policy.

Proof of Coverage - Prior to the commencement of performance of services the Contractor shall furnish to the County Purchasing Division Certificates of Insurance and amendatory endorsements or copies of the applicable policies. These certificates shall provide that such insurance shall not be terminated or expire without notice thereof in accordance with the policy provisions and Contractor shall maintain such insurance from the time the Contractor commences performance of services until completion of such services.

Acceptability of insurance carrier – Unless otherwise approved by Risk Management, Insurance shall be written by insurers authorized to do business in the State of Florida and with a minimum Best Insurance Guide rating of "A:VII".

Deductibles and Self-Insured Retention – Any and all deductibles or self-insured retentions in excess of \$10,000 shall be declared to and approved by Risk Management. The County may require the Contractor to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration and defense expenses within the deductible or retention.

Failure to Procure Coverage – In the event that any policy of insurance required under this contract does not comply with the requirements, is not procured or is cancelled and not replaced, the County has the right but not the obligation or duty to terminate the contract or obtain insurance if it deems necessary and any premiums paid by the County will be promptly reimbursed by the Contractor or County payments to the Contractor will be reduced to pay for County purchased insurance.

Insurance Review – Insurance requirements are subject to periodic review by the County. The Risk Manager or designee is authorized, but not required, to reduce, waive, or suspend any insurance requirements whenever Risk Management determines that any of the required insurance is not available, is unreasonably priced or is not needed to protect the interests of the County. In addition, if Risk Management determines that heretofore, unreasonably or unavailable types of insurance coverage or coverage limits become reasonably priced or available, the Risk Manager or designee is authorized, but not required, to change the above insurance requirements to require additional types of insurance coverage or higher coverage limits, provided that any such change is reasonable in light of past claims against the County, inflation, or any other item reasonably related to the County's risk. Any change requiring additional types of insurance coverage or higher coverage limits must be made by amendment to this contract. Contractor agrees to execute any such amendment within thirty (30) days of receipt.

Any failure, actual, or alleged, on part of the County to monitor or enforce compliance with any of the insurance and indemnification requirements will not be deemed as a waiver of any rights on the part to the County.

SAFETY AND HEALTH REQUIREMENTS PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION – ANNUAL CONTRACT BID NO. 2024000547

SH-01 HEALTH AND SAFETY PLAN: It shall be the responsibility of the Contractor to comply with OSHA, EPA, DOT and other applicable Federal and State of Florida laws, rules, regulations or other requirements. This includes, but is not limited to, 29 CFR 1926 (Safety and Health Regulations for Construction) and 1910 (Safety and Health Regulations for General Industry). Contractors are required to have a written Health and Safety Program that is jobsite specific. The elements of this written program shall be in accordance with OSHA 1926 and 1910. A list of program elements can be obtained from Charlotte County Risk Management.

The Contractor will designate a responsible member of his organization whose duty shall be the prevention of accidents at the site. This person shall be the Contractor's superintendent unless otherwise designated in writing by the Contractor to the Project Manager.

A copy of the Contractor's Health and Safety Plan will be submitted to Charlotte County at least 10 days prior to commencement of work. Contractor shall provide documentation that his employees and subcontractors received training (been informed of) on the Contractor's Health and Safety Plan. The Contractor will be responsible for conducting a site safety briefing for all visitors to the site. Documentation of these site safety briefings are to be maintained by the Contractor and made available to Charlotte County upon request.

Contractor will post, where appropriate, all necessary job-site Health and Safety notices. The Environmental Health and Safety Manager will conduct unannounced job-site inspections during the course of the project. Minor safety violations may be addressed immediately with the onsite supervisor and Project Manager. Major safety violations will result in written notification to the Contractor and Charlotte County Department Director under which the project is being performed. Hazardous conditions that are considered by the Environmental Health and Safety Manager to be immediately dangerous to life or limb will result in immediate stoppage of work until the hazardous conditions are corrected.

SH-02 ACCIDENTAL SPILLS: In the event of an accidental release or spill of chemicals or other hazardous materials the Contractor shall:

- Immediately take action as appropriate to contain the spill if this action can be taken without jeopardizing the health or safety of employees,
- Notify the Fire/EMS, or other entities as needed or required,
- Contact the Project Manager/Coordinator, and
- Contact Charlotte County Risk Management and Environmental Health and Safety Manager.

The following phone numbers may be used in the event of an emergency:

Risk Management	941.764.4191
Environmental Health and Safety Manager	941.743.1381 (or Cell 941.223.5535)

SH-03 CONTROL OF FUGITIVE EMISSIONS: The Contractor shall take all reasonable precautions necessary to control fugitive emissions from the job site. Fugitive emissions include, but are not limited to: nuisance dust, chemical odors/vapors/gases, hazardous materials such as lead or asbestos, and noise. Where the product(s) or material(s) to be used by the Contractor has a permissible exposure limit (PEL) established by OSHA the Contractor shall take all reasonable steps to maintain emissions of the product(s) or materials below the OSHA PEL. To verify that emissions are maintained below the OSHA PEL, the Contractor shall monitor, or shall contract to have monitored, work area exposure conditions. Monitoring shall occur, at a minimum, during the start of work and whenever there is a change in procedure, process, or chemical or material used. If it is deemed not practical to maintain exposures below the PEL, the Contractor shall restrict access to all areas where exposures exceed the PEL to authorized personnel only.

A. ASBESTOS AND SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS: Contractors shall, under no circumstances, damage or disturb suspect or known asbestos containing material (ACM) unless they are a licensed Florida Asbestos Abatement Contractor and have been specifically employed to perform asbestos repair or removal. It is the responsibility of the Contractor to provide his or her own asbestos awareness program in accordance with 29 CFR

1926.1101. Where required by Federal and State regulations, the Contractor is required to have asbestos surveys performed prior to any work that includes, but is not limited to, renovation, and demolition. The asbestos survey must be performed by a firm that is licensed in the State of Florida to perform such surveys. A copy of the asbestos survey shall be submitted to the County's project manager. Asbestos materials may not be used or installed in any Charlotte County facilities.

B. LEAD-CONTAINING BUILDING MATERIALS: Contractors that will disturb lead-containing building materials during the course of work shall take all necessary precautions to protect Charlotte County employees and the public from exposure to lead dust or contamination. These measures shall conform, at a minimum, to the OSHA requirements detailed in 29 CFR 1926.62 and applicable local, state and federal regulations. Where the Contractor is engaged in work in child-occupied facilities, such work shall be performed in accordance with 40 CFR 745, and clearance testing shall be performed by the Environmental Health and Safety Manager or a licensed consultant at the conclusion of the project in accordance with the requirements of this regulation.

C. SAMPLING AND MONITORING RESULTS: The results of all personal and area monitoring and or other samples collected for health and safety compliance required by OSHA or any other state or federal regulatory agency shall be provided to Charlotte County.

BID FORM PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION – ANNUAL CONTRACT BID NO. 2024000547
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TO: Senior Division Manager - Purchasing
Board of County Commissioners
Charlotte County Administration Center
18500 Murdock Circle
Port Charlotte, FL 33948-1094

The undersigned, as bidder, does hereby declare that he has read the Request for Bids, Instructions to Bidders, Technical Specifications & Conditions, Safety & Health Requirements, Bid Form, Drawings, and any other documentation for

PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION – ANNUAL CONTRACT

and further agrees to furnish all items listed on the attached Bid Form in accordance with the unit price(s) submitted. The above specified documents are herein incorporated into the Bid Form and shall be defined as the contract documents.

BID DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	EXT. PRICE
Sodium Hypochlorite Solution (Chlorine Bleach)				
East Port WRF	gal	185,000		
West Port WRF	gal	40,000		
Rotonda WRF	gal	80,000		
Burnt Store WRF	gal	35,000		
Golf Course WBS #2- (2) 850 gal tanks	gal	35,000		
Gulf Cove WBS #3 - (2) 550-gal tanks	gal	20,000		
Walenda WBS #4 - (2) 1,000-gal tanks	gal	50,000		
Rotonda WBS #6 – (2) 900-gal tanks	gal	75,000		
Ingraham Inj. Sta. #7 – 350-gal tank	gal	7,000		
Burnt Store RO Plant	gal	9,000		
O'Hara WBS #10 (TBD ~2026)	gal	25,000		
Eagle St RBS #1 – (1) 500 gal tank	gal	5,000		
Walenda RBS #2 – (1) 500 gal tank	gal	5,000		
Englewood Interconnect Booster	gal	15,000		
Total Gallons		586,000	\$ _____	\$ _____

Method of off-loading – Tank Truck w/Pumping Capability & 50–60-foot hose

Delivery _____ calendar days

Please indicate by (√) that you have included the following documentation with your bid:

- () **SDS Forms**
- () **ANSI / NSF 60 certification**
- () **References**

NOTE: In accordance with Florida Statutes, Section 119.071(1)(b)2: Sealed bids, proposals, or replies received by an agency pursuant to a competitive solicitation are exempt from s. 119.071(1)(b)2 and s. 24(a), Art. I of the State Constitution, except as provided by Florida Statutes 255.0518, until such time as the agency provides notice of an intended decision or until 30 days after opening the bids, proposals, or final replies, whichever is earlier. Upon release of the intended decision, if you wish to obtain the quote results, you may do so by visiting our Website at <https://purchasingbids.charlottecountyfl.gov/> under "Purchasing Bids Online", document number 245474. No information regarding the submittal will be divulged over the telephone.

OPTIONAL ELECTRONIC BID SUBMISSIONS: If your firm would like to submit your bid electronically, please visit <http://bit.ly/3TYAyKa> and follow given instructions.

Name of Bidder: _____
(This form to be returned)

SOURCE OF SUPPLY AND SUBCONTRACTORS

The following sources of supply and subcontractors shall be used for the **PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION – ANNUAL CONTRACT** project. If bidder does not have a source of supply or subcontractor, insert “to be determined”. When a source or subcontractor is determined, selection will be subject to County approval. (If not applicable, state N/A).

Source of Supply	Subcontractor(s)
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____

DRUG FREE WORKPLACE FORM

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that _____
(name of business) does:

- 1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- 3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
- 5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Signature _____
Dated _____

Name of Bidder: _____

(This form to be returned)

REFERENCES: PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION – ANNUAL CONTRACT

Contractor shall submit a minimum of three (3) recent (within the past five (5) years) references of projects of similar size and scope. Each reference shall include a project description, project location, name and phone number of a contact person, total project amount, and completion date. The County reserves the right to contact references.

1. Project Owner / Company: _____

Name of Contact Person: _____ Telephone # _____

Address: _____

City & State: _____ Zip Code: _____

Project Description: _____

Total Project Amount: \$ _____ Completion Date: _____

2. Project Owner / Company: _____

Name of Contact Person: _____ Telephone # _____

Address: _____

City & State: _____ Zip Code: _____

Project Description: _____

Total Project Amount: \$ _____ Completion Date: _____

3. Project Owner / Company: _____

Name of Contact Person: _____ Telephone # _____

Address: _____

City & State: _____ Zip Code: _____

Project Description: _____

Total Project Amount: \$ _____ Completion Date: _____

4. Project Owner / Company: _____

Name of Contact Person: _____ Telephone # _____

Address: _____

City & State: _____ Zip Code: _____

Project Description: _____

Total Project Amount: \$ _____ Completion Date: _____

Name of Bidder: _____

(This form to be returned)



**CHARLOTTE COUNTY BOARD OF COMMISSIONERS
OFFICIAL BID TABULATION
PURCHASE AND DELIVERY OF SODIUM HYPOCHLORINE SOLUTION - ANNUAL CONTRACT
BID NO. 2024000547**

DUE DATE: AUGUST 14, 2024

DEPT: UTILITIES

Company Names ►			Allied Universal Corporation							
Location ►			Miami, FL							
Description ▼	Unit	Qty	Price	Extension	Price	Extension	Price	Extension	Price	Extension
Sodium Hypochlorite Solution	gal	586,000	\$ 1.67	\$ 978,620.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Company Names ►										
Location ►										
Description ▼	Unit	Qty	Price	Extension	Price	Extension	Price	Extension	Price	Extension
Sodium Hypochlorite Solution	gal	586,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

[illegible]

AGREEMENT FOR PURCHASE AND DELIVERY OF SODIUM HYPOCHLORITE SOLUTION
(Utilizing Charlotte County, Florida Contract)

This Agreement for Purchase and Delivery of Sodium Hypochlorite Solution (“Agreement”) is made as of the _____ day of _____, 2024, by and between the **Village of Palm Springs**, 226 Cypress Lane, Palm Springs, Florida 33461-1699, a Florida municipal corporation (“VILLAGE”), and Allied Universal Corporation, a corporation authorized to do business in the State of Florida, 3901 NW 115th Avenue, Miami, FL 33178 (“VENDOR”).

RECITALS

WHEREAS, the VILLAGE’s Utilities Department is in need of sodium hypochlorite solution; and,

WHEREAS, in August 2024, Charlotte County, Florida (“Charlotte County”), after a competitive selection process (Bid No. 2024000547) awarded an annual agreement to the VENDOR for substantially the solution sought by the VILLAGE (“Charlotte County Contract”); and,

WHEREAS, the VILLAGE has reviewed the terms of the Charlotte County Contract and has determined the VENDOR’s rate for purchase and delivery of the solution set forth therein is fair and reasonable; and,

WHEREAS, the VILLAGE requested and the VENDOR has agreed to extend the terms of the Charlotte County Contract to the VILLAGE and the VENDOR has executed this Agreement with the VILLAGE to utilize the terms of the Charlotte County Contract; and,

WHEREAS, the VILLAGE finds that entering into this Agreement is in compliance with the VILLAGE’s Purchasing Code and serves a valid public purpose.

NOW THEREFORE, in consideration of the mutual promises set forth herein, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Recitals. The parties agree that the recitals set forth above are true and correct and are fully incorporated herein by reference.
2. Charlotte County Contract, Effective Date, and Term. The Charlotte County Contract with the VENDOR is hereby expressly made a part of this Agreement as fully as if set forth at length herein. The VILLAGE shall have all rights, obligations, and remedies authorized to Charlotte County under the Charlotte County Contract. The effective date of this Agreement is the date this Agreement is approved by the Village Council. Unless earlier terminated by the VILLAGE or VENDOR, the term of this Agreement shall be consistent with the term of the Charlotte County Contract. This Agreement shall be dependent on the annual appropriation of funds by the Village Council.
3. Service Request(s). The VILLAGE’s ordering mechanism for the services shall be a VILLAGE issued Purchase Order, which the Village will send to the VENDOR. The scope of services to be provided by the VENDOR and the maximum compensation to be paid by the VILLAGE to the VENDOR shall be set forth in each VILLAGE issued Purchase Order. The VENDOR shall not provide any goods or services under this Agreement without a VILLAGE issued Purchase Order specifically for this purpose. The VENDOR shall not provide any goods or services which are outside the scope of the VILLAGE issued Purchase Order and the VENDOR shall not exceed the expressed amounts stated in the VILLAGE issued Purchase Order. The pricing in each VILLAGE PURCHASE ORDER shall be consistent with the pricing set forth in the Charlotte County Contract, which pricing is attached hereto as **Exhibit “A”** and incorporated herein. The terms and conditions printed on the VILLAGE Purchase Order shall not apply.

4. Not to Exceed Amount for Goods and Services. The total value of goods and services to be provided by the VENDOR under this Agreement shall not exceed the total amount set forth in the VILLAGE issued purchase order(s).

5. Documents and Conflict of Terms and Conditions. The complete agreement between the VILLAGE and the VENDOR consists of the terms and conditions in this Agreement, VILLAGE issued Purchase Order(s), and the Charlotte County Contract. The aforementioned documents are intended to be complementary and interpreted in harmony so as to avoid conflict with the words and phrases interpreted in a manner consistent with construction and design industry standards. In the event of any inconsistency, conflict or ambiguity between or among the above documents, the terms and conditions of this Agreement shall take precedence with any VILLAGE issued Purchase Order(s) next taking precedence.

6. Miscellaneous Provisions.

6.1 *Successors and Assigns.* The VILLAGE and VENDOR each binds itself, its partners, its successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in this Agreement.

6.2 *Insurance.* VENDOR shall maintain the insurance as required in Charlotte County Contract applicable to the goods and services being delivered hereunder. Said insurance will name the "Village of Palm Springs, its officials, employees and agents" as an additional insured.

6.3 *Headings, References and Exhibits.* The headings contained in this Agreement are inserted for convenience of reference only and shall not be a part or control or affect the meaning hereof. All references herein to Exhibits are to the exhibits hereto, each of which shall be incorporated into and deemed to be a part of this Agreement.

6.4 *Counterparts.* This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original, but all of which shall be deemed to be an original, but each of which together shall constitute one and the same instrument.

6.5 *Entire Agreement; Amendment.* This Agreement supersedes any and all prior negotiations and oral or written agreements heretofore made relating to the subject matter hereof and, except for written agreements, if any, executed and delivered simultaneously with or subsequent to the date of this Agreement, constitutes the entire agreement of the parties relating to the subject matter hereof. This Agreement may not be altered or amended except by a writing signed by the parties hereto.

6.6 *Governing Law; Consent to Jurisdiction.* This Agreement shall be governed by and construed and interpreted in accordance with the laws of the State of Florida. Each of the parties hereto (a) irrevocably submit itself to the exclusive jurisdiction of the Fifteenth Judicial Circuit Court in and for Palm Beach County, Florida, for state actions and jurisdiction of the United States District Court for the Southern District of Florida, Palm Beach Division, for the purposes of any suit, action or other proceeding arising out of, or relating to, this Agreement; (b) waives and agrees not to assert against any party hereto, by way of motion, as a defense of otherwise, in any suit, action or other proceeding, any claim that it is not personally subject to the jurisdiction of the above-named courts for any reason whatsoever; and (ii) to the extent permitted by applicable law, any claim that such suit, action or proceeding by any part hereto is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such courts.

6.7 *Third Party Beneficiary rights.* This Agreement shall create no rights or claims whatsoever in any person other than a party herein.

6.8 *Severability.* If any one or more of the provisions of the Agreement shall be held to be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions hereof shall not in any way be affected or impaired thereby.

6.9 *Public Records.* VENDOR shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the VILLAGE as provided under section 119.011(2), Florida Statutes, specifically agrees to:

- (1) Keep and maintain public records required by the VILLAGE to perform the service.
- (2) Upon request from the VILLAGE's custodian of public records or designee, provide the VILLAGE with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (3) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of this Agreement and following completion of this Agreement if the VENDOR does not transfer the records to the VILLAGE.
- (4) Upon completion of this Agreement, transfer, at no cost, to the VILLAGE all public records in possession of the VENDOR or keep and maintain public records required by the VILLAGE to perform the service. If the VENDOR transfers all public records to the VILLAGE upon completion of the Agreement, the VENDOR shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the VENDOR keeps and maintains public records upon completion of the Agreement, the VENDOR shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the VILLAGE, upon request from the VILLAGE's custodian of public records or designee, in a format that is compatible with the information technology systems of the VILLAGE.

IF THE VENDOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE VENDOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS OR DESIGNEE AT (561) 584-8200 Ext. 8431, kwynn@vpsfl.org, OR BY MAIL AT VILLAGE OF PALM SPRINGS, 226 CYPRESS LANE, PALM SPRINGS, FL 33461.

6.10 *Preparation.* This Agreement shall not be construed more strongly against either party regardless of who was more responsible for its preparation.

6.11 *Palm Beach County IG.* In accordance with Palm Beach County ordinance number 2011-009, the VENDOR acknowledges that this Agreement may be subject to investigation and/or audit by the Palm Beach County Inspector General. The VENDOR has reviewed Palm Beach County ordinance number 2011-009 and is aware of its rights and/or obligations under such ordinance.

6.12 *Notices.* Except for Village issued Purchase Order(s), which may be sent via email pursuant to Paragraph 3 of this Agreement, all notices required in this Agreement shall be hand-delivered, sent by certified mail, return receipt requested, or by over-night delivery by a nationally recognized courier (with receipt of delivery) to the addresses appearing on the first page of this Agreement.

6.13 *Taxes.* The VILLAGE is exempt from payment of Florida State Sales and Use Tax. The VENDOR shall not be exempted from paying sales tax to its suppliers for materials used to fill contractual obligations with the VILLAGE, nor is the VENDOR authorized to use the VILLAGE'S Tax Exemption Number in securing such materials.

6.14 *No Consequential Damages.* Notwithstanding any other provision in this Agreement, in no event shall either party be liable to the other party for any incidental, special, indirect, liquidated, consequential, or punitive damages arising out of or related to this Agreement, whether such alleged damages are labeled in tort, contract, or otherwise, and even if a party has been advised of the possibility of such damages.

6.15 *Execution/Delivery.* This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original and such counterparts will constitute one and the same instrument. The parties agree to accept the execution and delivery of this Agreement by electronic means and shall treat the same as an original.

6.16 *Authorized Signatory.* By signing this Agreement, the undersigned individual agrees and warrants that he/she is authorized by the VENDOR to enter this Agreement and bind the VENDOR to this Agreement.

7. Public Entity Crimes, E-Verify, and Scrutinized Companies.

7.1 As provided in Sections 287.132-133, Florida Statutes, as amended from time to time, by entering into the Agreement, VENDOR certifies that it, its affiliates, suppliers, subcontractors and any other contractors who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the thirty-six (36) months immediately preceding the date hereof.

7.2 If applicable to the VENDOR, pursuant to Section 448.095(5), Florida Statutes, the VENDOR, and any subcontractor thereof, shall register with and use the E-Verify system to verify the work authorization status of all new employees of the contractor and the subcontractor.

7.3 As provided in Section 287.135, Florida Statutes, as amended from time to time, by entering into the Agreement, VENDOR certifies that it is not participating in a boycott of Israel. The VILLAGE and VENDOR agree that the VILLAGE will have the right to terminate the Agreement if VENDOR is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

8. Fiscal Non-funding. In the event sufficient budgeted funds are not available for a new fiscal period, the VILLAGE shall notify the VENDOR of such occurrence and this Agreement shall terminate on the last day of the current fiscal period without penalty or expense to the VILLAGE. The VENDOR will be paid for all services rendered through the date of termination.

9. Compliance with Section 787.06. By signing this Agreement as set forth below, the VENDOR's authorized representative attests under penalty of perjury that the VENDOR does not use coercion for labor or services as defined in section 787.06, Florida Statutes.

REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the VILLAGE and VENDOR have caused this Agreement for Purchase and Delivery of Sodium Hypochlorite Solution to be executed the day and year shown above.

VILLAGE OF PALM SPRINGS, FLORIDA

By: _____
Bev Smith, Mayor

ATTEST

Kimberly Wynn, Village Clerk

Approved as to form and legal sufficiency:

Christy Goddeau, Village Attorney

VENDOR: **Allied Universal Corporation**

[Corporate Seal]

By: _____

Print Name: _____

Title: _____

STATE OF FLORIDA)
COUNTY OF PALM BEACH)

THE FOREGOING instrument was acknowledged before me by means of ___ physical presence or ___ online notarization on this ____ day of _____, 2024, by _____ of Allied Universal Corporation, a corporation authorized to do business in the State of Florida, who is personally known to me or who has produced _____ as identification, and who did take an oath under penalty of perjury that the facts stated with regard to section 787.09, Florida Statutes, are true and correct, and that he or she is duly authorized to execute the foregoing instrument and bind the VENDOR to the same.

Notary Seal:

Notary Public Signature

EXHIBIT "A"
VENDOR's PRICING

For purchase and delivery of sodium hypochlorite solution:

\$1.67 per gallon.



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Public Works

ITEM #7: Rosso Site Development for the Davis Road Stormwater Improvements Project - Change Order #2

SUMMARY: The Davis Road Stormwater Improvements Project is currently under construction and during the underground stormwater work on Davis Road a very thick layer of unsuitable muck material was encountered that was approximately 4' to 5' thick. As this material cannot be utilized in the trench backfill because it cannot be compacted, it must be excavated, hauled off, disposed of, and replaced with clean suitable fill material. The Village worked with the engineer of record and contractor to determine the total limits of the muck material and negotiated the financial impact to the Village. The change order to Rosso Site Development is inclusive of all labor, equipment, material and disposal costs to properly handle the material and replace it with clean suitable fill. The amount of the change order is \$203,407.33, which includes all the additional work and associated costs that will be required as a result of the unforeseen condition.

FISCAL IMPACT:

The Change Order #2 to Rosso Site Development, Inc. will be paid for through ARPA funds at a cost not to exceed \$203,407.33, TO #291, Fund 42338-56391.

ATTACHMENTS:

1. Change Order #2 - Work Change Directive #6 - Rosso Site Development (muck removal)
2. Picture of Davis Road - Muck
3. Picture of Davis Road - Muck 2



Date of Issuance: 9/26/2024
Owner: Village of Palm Springs
Contractor: Rosso Site Development, Inc.
Engineer: Chen Moore and Associates
Project: Davis Road Stormwater Improvements

Effective Date: 9/26/24
Owner's Task Order No.: 291
Project Bid No. (ITB #): 2023B-04
Engineer's Project No.:
NTP: 5/23/2024

The Contract is modified as follows upon execution of this Change Order:

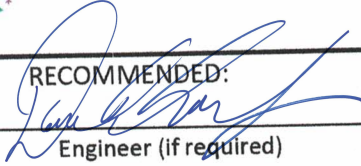
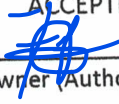
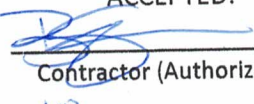
Description:

Due to the discovery of a very thick layer of muck material at Structure S-13, the Village worked with the contractor to determine the limits and depth of the unforeseen material throughout the project. The Village directed the contractor to investigate the remainder of the soil conditions throughout the project and it was determined that a majority of the drainage pipe trench corridors contained 4'-5' of muck. During the design phase, the project accounted for 2ea soil borings which showed a thin layer of muck (12" +/-) off of Jamaica Rd., however this was representative of a single location and not the entire project. The Village determined the muck presence was to be paid to the contractor at an additional cost due to the thickness and consistency of the unsuitable material being an unforeseen condition. The Village, engineer of record and contractor worked together to negotiate a fair price per linear foot that consisted of muck removal, importation of clean fill, haul-off / disposal of muck, and loss of crew production to compensate the contractor. Additional concrete sidewalk removal and replacement is also required due to the muck removal trench width and will be paid on the contract SY price.

Attachments: Rosso Site Development proposal, WCD #06

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES [note changes in Milestones if applicable]
Original Contract Price: \$ <u>1,710,874.13</u>	Original Contract Times: 180 Days / 210 Days Substantial Completion: <u>November 19, 2024</u> Ready for Final Payment: <u>December 19, 2024</u> days / dates
[Increase] [Decrease] from previously approved Change Orders No. <u>1</u> to No. <u>1</u> : \$ <u>103,558.98</u>	[Increase] [Decrease] from previously approved Change Orders No. <u>1</u> to No. <u>1</u> : Substantial Completion: <u>15 days - 12/4/2024</u> Ready for Final Payment: <u>1/3/2025</u> days
Contract Price prior to this Change Order: \$ <u>1,814,433.11</u>	Contract Times prior to this Change Order: Substantial Completion: <u>December 4, 2024</u> Ready for Final Payment: <u>January 3, 2024</u> dates
[Increase] [Decrease] of this Change Order: \$ <u>203,407.33</u>	[Increase] [Decrease] of this Change Order: Substantial Completion: <u>30 days - January 4, 2025</u> Ready for Final Payment: <u>March 3, 2025</u> Days
Contract Price incorporating this Change Order: \$ <u>2,017,840.44</u>	Contract Times with all approved Change Orders: Substantial Completion: <u>January 4, 2025</u> Ready for Final Payment: <u>March 3, 2025</u> Dates



RECOMMENDED:		ACCEPTED:		ACCEPTED:	
By:		By:		By:	
	Engineer (if required)		Owner (Authorized Signature)		Contractor (Authorized Signature)
Title	Senior Engineer	Title	Public Works Director	Title	VP
Date	2024.09.11 15:10:04-04'00'	Date	9/11/2024	Date	9-11-2024

The CONTRACTOR and the OWNER agree that this CHANGE ORDER represents the complete agreement of the parties with respect to these matters as of the date of this CHANGE ORDER. By approving this Change Order, the CONTRACTOR releases any and all claims that it may have against the OWNER under the subject contract including, but not limited to claims for equitable adjustments, which occurred or accrued prior to the effective date of this CHANGE ORDER except those claims made in writing to the OWNER prior to the effective date of this CHANGE ORDER. The effective date of this Change Order is the date it is approved by the OWNER.

This Change Order may be executed in counterparts and is not effective until approved by either the Village Manager or Village Council (as designated on the second page of this Change Order).

B.S.
Contractor Initial

IN WITNESS WHEREOF, the OWNER/VILLAGE has approved this Change Order No. 02 to the _____ Project on _____, 2024.

VILLAGE OF PALM SPRINGS, FLORIDA

By: _____

ATTEST:

Kimberly Wynn, Village Clerk

Approved as to form and legal sufficiency:

Glen J. Torcivia, Village Attorney

	FALCON	ROSSO	
SCENARIO #1 – MUCK REMOVAL NORTH OF S-13 / JAMAICA RD	\$116.19		
25% CREDIT	(\$29.05)		
ADS PIPE CREDIT	(\$7.00)		
		10% PROFIT + 2% BOND	226', 233', 127'
TOTAL UNIT PRICE PER LF	\$80.14		\$90.88 (Rosso price per C.O.)

	FALCON	ROSSO	
SCENARIO #2 – MUCK REMOVAL NORTH OF S-13 / JAMAICA RD	\$116.19		
25% CREDIT	(\$29.05)		
NO ADS PIPE CREDIT (RCP)	(\$0.00)		
		10% PROFIT + 2% BOND	50', 36', 36', 65', 45'
TOTAL UNIT PRICE PER LF	\$87.14		\$97.88 (Rosso price per C.O.)

	FALCON	ROSSO	
SCENARIO #3 – MUCK REMOVAL SOUTH OF S-13	\$116.19		
0% CREDIT	(\$0.00)		
ADS PIPE CREDIT	(\$7.00)		
		10% PROFIT + 2% BOND	369', 42'
TOTAL UNIT PRICE PER LF	\$109.19		\$123.51 (Rosso price per C.O.)

	FALCON	ROSSO	
SCENARIO #4 – MUCK REMOVAL SOUTH OF S-13	\$116.19		
0% CREDIT	(\$0.00)		
NO ADS PIPE CREDIT (RCP)	(0.00)		
		10% PROFIT + 2% BOND	31'
TOTAL UNIT PRICE PER LF	\$116.19		\$130.51 (Rosso price per C.O.)

ALL SCENARIOS WITH PIPE LENGTHS PER PLAN

Scenario #1 = $226' + 233' + 127' = 586' \times \$90.88 = \$53,255.68$

Scenario #2 = $50' + 36' + 36' + 65' + 45' = 232' \times \$97.88 = \$22,708.16$

Scenario #3 = $369' + 42' = 411' \times \$123.51 = \$50,762.61$

Scenario #4 = $31' \times \$130.51 = \$4,045.81$

Total Estimated Muck Removal Costs = \$130,772.26

25% Contingency = \$32,693.07

Total C.O. = **\$163,465.33**

Concrete Driveway Remove and Restoration: $450 \text{ sy} \times \$88.76 = \$39,942$

Grand Total Estimated Change Order: **\$203,407.33**

1302 South J Street
Lake Worth, FL 33460

ROSSO
Site Development

Ph: 561-689-0889
Fax: 561-689-2851

Change Order Request

Change Order No.: 9 Owner Proj. No.: 2024B-004
Owner: Palm Springs RSD Proj. No.: 01-24001
Project: Davis Road Stormwater Improvements Date: 8/29/2024

Description: Additional labor and equipment for the installation of proposed 18" storm drain due to muck. Not to exceed 5 feet of depth. This is a linear foot price CO that will be documented by Falcon daily reports

#	Description	Qty	Unit	Unit Price	Total Price
SW-3a	Furnish and Install 18" RCP Drainage Pipe (pipe credits (ADS instead of RCP) + 75% of muck paid by city)	1	LF	\$ 90.88	TBD
SW-3b	Furnish and Install 18" RCP Drainage Pipe (no pipe credit (RCP) + 75% of muck paid by city)	1	LF	\$ 97.88	TBD
SW-3c	Furnish and Install 18" RCP Drainage Pipe (pipe credit (ADS instead of RCP) and 100% of muck paid by city)	1	LF	\$ 123.51	TBD
SW-3d	Furnish and Install 18" RCP Drainage Pipe (no pipe credit (RCP) + 100% of muck paid by city)	1	LF	\$ 130.51	TBD
					\$ -
R-5	Concrete Driveway Remove and Restoration	450	SY	\$ 88.76	\$ Estimated qty -

Total: \$ -

Original Contract Amt \$ -
Amount of this Change Order \$ -
Amount of Previous Change Order (s) \$ -
New Total Contract Amount \$ -

Completion time extended 0 days If yes, new completion date? _____

When executed by all parties, this document will become part of the above reference construction contract.

Client Signature _____ Blair Simpson
Client Printed _____

Revisions

#	Date	By	Description
1	8/29/2024	JAR	Reconfiguration of bid items per City

1302 South J Street
Lake Worth, FL 33460

ROSSO

Site Development

Ph: 561-689-0889
Fax: 561-689-2851

CHANGE ORDER BREAKDOWN

Description of work: Additional labor and equipment for the installation of proposed 18" storm drain due to muck. Not to exceed 5 feet of depth. This is a linear foot price CO that will be

CO #: 9

EQUIPMENT					
#	Description	Qty	Unit	Unit Cost	Total Cost
1			HR		\$0.00
2			HR		\$0.00
3			HR		\$0.00
4			HR		\$0.00
5			HR		\$0.00
6			HR		\$0.00
7			HR		\$0.00
8			HR		\$0.00
9			HR		\$0.00
10			HR		\$0.00
11			HR		\$0.00
12			HR		\$0.00
13			HR		\$0.00
14			HR		\$0.00
15			HR		\$0.00
16			HR		\$0.00
17			HR		\$0.00
18			HR		\$0.00

Equipment Subtotal \$0.00
Markup 17.50% \$0.00
EQUIPMENT TOTAL: \$0.00

LABOR					
#	Description	Qty	Unit	Unit Cost	Total Cost
1			HR	\$84.20	\$0.00
2			HR		\$0.00
3			HR		\$0.00
4			HR		\$0.00
5			HR		\$0.00
6			HR		\$0.00
7			HR		\$0.00
8			HR		\$0.00
9			HR		\$0.00
10			HR		\$0.00
11			HR		\$0.00

Labor Subtotal **\$0.00**
Burden 45.73% \$0.00
Markup 17.50% \$0.00
LABOR TOTAL: \$0.00

MATERIAL					
#	Description	Qty	Unit	Unit Cost	Total Cost
1			LS		\$0.00
2			LS		\$0.00
3					\$0.00
4					\$0.00
5					\$0.00
6					\$0.00
7					\$0.00
Material Subtotal					\$0.00
Markup 17.50%					\$0.00
MATERIAL TOTAL:					\$0.00

SUBCONTRACTORS					
#	Description	Qty	Unit	Unit Cost	Total Cost
1	Muck Removal	1	LF	\$116.19	\$116.19
2		1	LS		\$0.00
3		1	LS		\$0.00
4		1	LS		\$0.00
5		1	LS		\$0.00
6		1	LS		\$0.00
7		1	LS		\$0.00
Subcontractor Subtotal					\$116.19
Markup 10.00%					\$11.62
SUBCONTRACTOR TOTAL:					\$127.81

Equipment Total: \$0.00
Labor Total: \$0.00
Material Total: \$0.00
Subcontractors Total: \$127.81

Bond & General Liability Insurance: \$2.70
MOT: \$0.00

Total: \$130.51



Falcon Contracting, Inc.
Subcontractor Quote

Appendix 'A'



CONTRACT CHANGE ORDER

FALCON CONTRACTING, INC.

4225 Chukker Drive
West Palm Beach, FL 33406JOB
CONTRACT JOB NO. 21-471.002
FOR : Davis Rd Stormwater ImprovmentsCHANGE
ORDER NO: 5
DATE: 08/26/24TO: [Rosso Site Development
C/O Juan Lugo
1302 South J Street
Lake Worth, FL 33460
[]

REVISED CONTRACT AMOUNT

PREVIOUS CONTRACT AMOUNT \$581,800.36
AMNT OF THIS ORDER PER LF \$TBD varies
TOTAL CONTRACT AND EXTRAS TBD

Cost Code	Item #	Description	Quantity	UM	Unit Price	Total Amount
		Change Order Request #5	1.00	LF	\$ 116.19	\$116.19
		Reduction of 25% (north of S-13 only)	1.00	LF	\$ (29.05)	(\$29.05)
		Pipe Credit (RCP to ADS)	1.00	LF	\$ (7.00)	(\$7.00)
			1.00	LS*	\$ -	\$0.00
			1.00	LS*	\$ -	\$0.00
			1.00	LS*	\$ -	\$0.00
						\$0.00
						\$TBD
					TOTAL CHANGE ORDER AMOUNT PER LF	

Change Order Description: Additional labor and equipment for the installation of proposed 18" ADS storm drain going North from S-13 due to unforeseen conditions (removal of muck not to exceed 5 feet of depth) not shown in bid documents. This will be a linear foot price change order documented by Falcon Contracting daily reports only.

ADDITIONAL TIME REQUESTED: TBD

CONTRACT DAYS TBD

The work covered by this order shall be performed under the same Terms and Conditions as that included in the Original Contract.

CHANGES APPROVED:

C/O Juan Lugo
By: _____
Printed Name: _____
Date: _____AMOUNT OF ORIGINAL CONTRACT: \$568,677.17
CHANGE NO. 5
Falcon Contracting Inc
By: _____
Mark Martin, Project Manager

4225 Chukker Drive
West Palm Beach, FL 33406
561-965-9481

	PROJECT NUMBER
	PROJECT NAME
	CHANGE ORDER NUMBER
	CHANGE ORDER DESCRIPTION

21-471.002

Davis Rd Stormwater Improvments

5

Additional labor and equipment for the installation of proposed 18" ADS storm drain going North from S-13 due to unforeseen conditions (removal of muck not to exceed 5 feet of depth) not shown in bid documents. This will be a linear foot price change order documented by Falcon Contracting daily reports only.

DATE **8/26/2024**[illegible]







Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Utilities

ITEM #8: Approve Main and RL Pratt Water Treatment Plants Protective Coating system Restoration (Task Orders No. 343 & 344) - Work Authorization No. KH-U24 - Utilities Department (FY 2025-Water & Sewer Enterprise Fund) - Kimley-Horn and Associates Inc.

SUMMARY: The Village needs to perform protective coating system restoration work to the infrastructure at the Main and RL Pratt Water Treatment Plants (WTPs). The coating systems applied to infrastructure are critical in prolonging the service life and mitigating long-term damage to equipment. The condition of existing coating systems is suspect and in need of replacement.

The Village Council is requested to approve Work Authorization No. KH-U24 to support all required professional engineering services and related tasks associated with Main & Pratt Water Treatment Plants Coating System Restoration – (Task Orders No. 343 & 344) - by Kimley Horn and Associates, Inc., the Village's contracted engineering firm. The proposed tasks and associated costs to provide the professional engineering services are \$75,000.00

The Village Council has approved \$1,800,000.00 for the Main & Pratt Water Treatment Plants Coatings System Restoration (Task Orders No. 343 & 344) within the FY 2025 Budget - Water and Sewer Enterprise Fund.

The staff recommends approval of the proposed Work Authorization No. KH-U24 - Kimley Horn and Associates, Inc. of \$75,000.00 for professional engineering services associated with the Main & Pratt Water Treatment Plants Coatings System Restoration – (Task Orders No. 343 & 344). If approved, the Village would accept Kimley Horn and Associates, Inc. pricing as outlined within the previously approved General Consulting Services Continuing Contract with Kimley Horn and Associates, Inc., including all terms, conditions, and pricing therein.

Note: The Village issued a Request for Qualifications (RFQ) for Professional Engineering Services RFQ No. 2024R-001 - Utility Engineering Services Continuing Contracts under the Consultants Competitive Negotiation Act CCNA - Section 287.55, Florida Statutes.

The proposed work authorization was prepared by Kimley Horn and Associates, Inc. and reviewed by the Assistant Utilities Director, Utilities Director, Village Attorney, and Finance Director.

The Village has worked with the proposed vendor previously and received excellent service and a quality product.

FISCAL IMPACT:

Funding to support purchases under this proposed agreement is available within the FY 2025 Budget - Water & Sewer Enterprise Fund. The Village will not expend more than the amount in the approved Budget as it may be adopted/amended each year for those goods and services over the term of this contract.

ATTACHMENTS:

1. Proposed Work Authorization #KH-U24 - Main & Pratt Water Treatment Plant Protective Coating Restoration
2. Agreement - RFQ #2024R-001 - Kimley Horn and Associates Inc.
3. Fiscal Impact Statement - Protective Coating Restoration Main & Pratt Water Treatment Plant



VILLAGE OF PALM SPRINGS
CONSULTING SERVICE WORK AUTHORIZATION

DATE: 9/16/2024

VILLAGE RFQ. NO. : 2024R-001

WORK AUTHORIZATION NO.: KH-U24 FOR CONSULTING SERVICES

TASK ORDER (PROJECT) NO.: 343 & 344 G/L CODE: 41336-56300

KIMLEY-HORN PROJECT NO.: 140593016

PROJECT TITLE: **MAIN AND RL PRATT WATER TREATMENT PLANTS**
Protective Coating System Restoration

This Work Authorization, when executed, shall be incorporated in and shall become an integral part of the Agreement for Professional Services dated June 13, 2024, between the Village of Palm Springs ("VILLAGE") and Kimley-Horn and Associates Inc. ("CONSULTANT") hereafter referred to as the Agreement.

I. PROJECT DESCRIPTION

The VILLAGE is interested in performing protective coating system restoration work to the infrastructure (identified in the attached aerial drawings) at their Main and RL Pratt Water Treatment Plants (WTPs). The coating systems are applied to infrastructure are critical in prolonging service life and mitigating long-term damage to equipment. The condition of existing coating systems is suspect and in need of replacement. Additionally, the VILLAGE has requested that the utility aerial crossings over the LWDD Canal No. 9 at the Main WTP be prepared and coated.

The scope of this project includes a site visit to each of the WTP's to evaluate condition of existing infrastructure, quantify the extent of coating application necessary and develop design documents that can be advertised for public bid.

II. SCOPE OF SERVICES

The following is a description of the services to be provided under this Work Authorization.

Task 1 – Design Phase Services – Main WTP

CONSULTANT will perform up to two (2) site visits to the Main WTP to inventory the infrastructure to be coated. Consultant will document condition of existing infrastructure and

note where structural repairs may be necessary prior to coating applications. Structural or architectural repairs are not included in this scope of services.

CONSULTANT will evaluate record drawings to develop base quantities for bidders to utilize in bidding the improvements.

CONSULTANT will coordinate with coating manufacturers to select appropriate systems for each application.

CONSULTANT will prepare site plans that outline the extent of the Main WTP site. The site plans will have photograph symbols that depict the areas and infrastructure within the plant site to be re-coated. Several pages of photo details for the WTP will be required to convey the extent of work required by the coating applicator. The following design plans are anticipated as part of the project plan sheets:

- Cover Page
- Main WTP Site Plan
- Main WTP Photo Details 1
- Main WTP Photo Details 2
- Main WTP Photo Details 3
- Main WTP Photo Details 4
- Main WTP Photo Details 5

CONSULTANT will prepare preliminary design deliverables to include plans, specifications and opinion of probable construction costs. CONSULTANT will address review comments from VILLAGE and finalize deliverables and submit to VILLAGE.

Task 2 – Bid Phase Services – Main WTP

CONSULTANT will assist VILLAGE with preparation of front-end bid documents. CONSULTANT will provide review of documents prepared by VILLAGE. Once developed, the VILLAGE will publicly advertise the bid documents for procurement.

CONSULTANT will attend one (1) pre-bid meeting with the Owner and potential Bidders/Contractors to perform site walk and discuss project.

CONSULTANT will respond to a reasonable number of questions from Contractor's during the bid process. CONSULTANT assumes up to two (2) addenda responses will be required as part of the scope of work.

CONSULTANT will review bids for accuracy and completeness. CONSULTANT will prepare a bid review summary which tallies the bids and identifies the lowest price, most responsive, most responsive bidder.

CONSULTANT will prepare a set of Conformed Documents based on any alterations made during the bid phase process.

Task 3 – Construction Phase Services – Main WTP

CONSULTANT will review shop drawings for the proposed improvements. CONSULTANT anticipates a total of two (2) shop drawings will be submitted which includes one (1) resubmittal. Additional shop drawing reviews will be considered additional services. CONSULTANT will review and/or take other appropriate action with respect to Shop Drawings and Samples and other data which the selected Contractor is required to submit, but only for conformance with the information given in the Contract Documents. Such review and approvals or other action will not extend to means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction or to related safety precautions and programs.

CONSULTANT will visit the site periodically throughout construction and generate field reports to keep the VILLAGE informed of the general progress of the Work. CONSULTANT has budgeted up to three (3) site visits necessary for construction oversight. Construction oversight visits and observations by the CONSULTANT are not intended to be exhaustive or to extend to every aspect of Contractor's work in progress. Observations are to be limited to spot checking, selective measurement, and similar methods of general observation of the Work based on CONSULTANT'S exercise of professional judgment. Based on information obtained during such visits and such observations, CONSULTANT will evaluate whether the selected Contractor's work is generally proceeding in accordance with the Contract Documents.

CONSULTANT will review applications for payment from the Contractor. CONSULTANT anticipates three (3) reviews. Based on its observations and on review of applications for payment and accompanying supporting documentation, CONSULTANT will review the amounts that the CONSULTANT recommends the selected Contractor be paid. Such recommendations of payment will be in writing and will constitute CONSULTANT'S representation to the VILLAGE, based on such observations and review, that, to the best of CONSULTANT'S knowledge, information and belief, the selected Contractor's work has progressed to the point indicated and that such work-in-progress is generally in accordance with the Contract Documents.

CONSULTANT assumes construction schedule to be approximately four (4) months with approximately three (3) months of active construction. CONSULTANT assumes no progress meeting will be held.

CONSULTANT will, after notice from the selected Contractor that it considers the entire Work ready for its intended use, in company with the Owner and Contractor, conduct a site visit to determine if the Work is substantially complete. Work will be considered substantially complete following satisfactory completion of all items with the exception of those identified on a final punch list. If after considering any objections of the Owner, Consultant considers the Work substantially complete, Consultant will notify the Owner and Contractor.

CONSULTANT will prepare a punch list of items for the selected Contractor to address prior to project final completion. CONSULTANT will attend one (1) site visit to confirm completion of punch list items.

Task 4 – Design Phase Services – RL Pratt WTP

CONSULTANT will perform up to two (2) site visits to the RL Pratt WTP to inventory the infrastructure to be coated. Consultant will document condition of existing infrastructure and note where structural repairs may be necessary prior to coating applications. Structural or architectural repairs are not included in this scope of services.

CONSULTANT will evaluate record drawings to develop base quantities for bidders to utilize in bidding the improvements.

CONSULTANT will coordinate with coating manufacturers to select appropriate systems for each application.

CONSULTANT will prepare site plans that outline the RL Pratt WTP site. The site plans will have photograph symbols that depict the areas and infrastructure within the plant site to be re-coated. Several pages of photo details for the WTP will be required to convey the extent of work required by the coating applicator. The following design plans are anticipated as part of the project plan sheets:

- Cover Page
- RL Pratt WTP Site Plan
- RL Pratt WTP Photo Details 1
- RL Pratt WTP Photo Details 2
- RL Pratt WTP Photo Details 3
- RL Pratt WTP Photo Details 4
- RL Pratt WTP Photo Details 5

CONSULTANT will prepare preliminary design deliverables to include plans, specifications and opinion of probable construction costs. CONSULTANT will address review comments from VILLAGE and finalize deliverables and submit to VILLAGE.

Task 5 – Bid Phase Services – RL Pratt WTP

CONSULTANT will assist VILLAGE with preparation of front-end bid documents. CONSULTANT will provide review of documents prepared by VILLAGE. Once developed, the VILLAGE will publicly advertise the bid documents for procurement.

CONSULTANT will attend one (1) pre-bid meeting with the Owner and potential Bidders/Contractors to perform site walk and discuss project.

CONSULTANT will respond to a reasonable number of questions from Contractor's during the bid process. CONSULTANT assumes up to two (2) addenda responses will be required as part of the scope of work.

CONSULTANT will review bids for accuracy and completeness. CONSULTANT will prepare a bid review summary which tallies the bids and identifies the lowest price, most responsive, most responsive bidder.

CONSULTANT will prepare a set of Conformed Documents based on any alterations made during the bid phase process.

Task 6 – Construction Phase Services – RL Pratt WTP

CONSULTANT will review shop drawings for the proposed improvements. CONSULTANT anticipates a total of two (2) shop drawings will be submitted including one (1) resubmittal. Additional shop drawing reviews will be considered additional services. CONSULTANT will review and/or take other appropriate action with respect to Shop Drawings and Samples and other data which the selected Contractor is required to submit, but only for conformance with the information given in the Contract Documents. Such review and approvals or other action will not extend to means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction or to related safety precautions and programs.

CONSULTANT will visit the site periodically throughout construction and generate field reports to keep the VILLAGE informed of the general progress of the Work. CONSULTANT has budgeted up to three (3) site visits necessary for construction oversight. Construction oversight visits and observations by the CONSULTANT are not intended to be exhaustive or to extend to every aspect of Contractor's work in progress. Observations are to be limited to spot checking, selective measurement, and similar methods of general observation of the Work based on CONSULTANT'S exercise of professional judgment. Based on information obtained during such visits and such observations, CONSULTANT will evaluate whether the selected Contractor's work is generally proceeding in accordance with the Contract Documents.

CONSULTANT will review applications for payment from the Contractor. CONSULTANT anticipates three (3) reviews. Based on its observations and on review of applications for payment and accompanying supporting documentation, CONSULTANT will review the amounts that the CONSULTANT recommends the selected Contractor be paid. Such recommendations of payment will be in writing and will constitute CONSULTANT'S representation to the VILLAGE, based on such observations and review, that, to the best of CONSULTANT'S knowledge, information and belief, the selected Contractor's work has progressed to the point indicated and that such work-in-progress is generally in accordance with the Contract Documents.

CONSULTANT assumes construction schedule to be approximately four (4) months with approximately three (3) months of active construction. CONSULTANT assumes no progress meeting will be held.

CONSULTANT will, after notice from the selected Contractor that it considers the entire Work ready for its intended use, in company with the Owner and Contractor, conduct a site visit to determine if the Work is substantially complete. Work will be considered substantially complete following satisfactory completion of all items with the exception of those identified on a final punch list. If after considering any objections of the Owner, Consultant considers the Work substantially complete, Consultant will notify the Owner and Contractor.

CONSULTANT will prepare a punch list of items for the selected Contractor to address prior to project final completion. CONSULTANT will attend one (1) site visit to confirm completion of punch list items.

TASK 7 – Project Management & Meetings

CONSULTANT will conduct monthly reviews of project progress to evaluate general compliance with approved budget and schedule. This task will also include coordination with both VILLAGE and the Contractor, updates to project schedule, and preparation of monthly invoices. Project management includes activities related to initiating, planning, executing, controlling, and closing the Project. The CONSULTANT will perform a technical review of deliverables, in accordance with standards, prior to transmitting to VILLAGE. Under this Task, the CONSULTANT will be responsible for overall coordination and oversight of the project execution.

CONSULTANT will attend one (1) review meeting with VILLAGE to review preliminary deliverables for Main and RL Pratt WTP.

CONSULTANT will attend one (1) pre-construction meeting with VILLAGE staff and the selected Contractor.

III. DELIVERABLES

- Preliminary Deliverables (Main and RL Pratt WTPs)
 - Preliminary Plans
 - Preliminary Specifications
 - Preliminary OPCC
- Final Deliverables (Main and RL Pratt WTPs)
 - Final Plans
 - Final Specifications
 - Final OPCC
- Addendum Responses (up to 3)
- Conformed Documents

IV. INFORMATION AND SERVICES PROVIDED BY THE VILLAGE

The CONSULTANT assumes that all information provided by the VILLAGE can be relied upon in the performance of professional services. The following information/services shall be provided to the CONSULTANT;

- Record drawing information for the Water Treatment Plant infrastructure.
- Access to the WTP sites.
- Review of deliverables
- Development of front-end bid documents
- Advertising the project for bidding

V. SCHEDULE

Upon receipt of Notice-To-Proceed, the CONSULTANT will endeavor to complete the services identified in this Work Authorization within the schedule outlined in **Table 1** below. This schedule assumes a two-week review time for the VILLAGE. Anything more

than this review time will impact the overall schedule.

Table 1 - Schedule

Description	Time to Complete (Calendar Days)	Cumulative Time to Complete (Calendar Days)
TASK 1 – Design Phase Services – Main WTP	120	120
TASK 2 – Bid Phase Services – Main WTP	45*	165
TASK 3 – Construction Phase Services – Main WTP	120**	285
TASK 4 – Design Phase Services – RL Pratt WTP	120	120
TASK 5 – Bid Phase Services – RL Pratt WTP	45*	165
TASK 6 – Construction Phase Services – RL Pratt WTP	120**	285
TASK 7 – Project Management & Meetings	285	285

*The bidding process timeline will be commensurate with Village Purchasing guidelines

**Construction Phase Services will commence upon NTP from the VILLAGE

IV. COMPENSATION AND PAYMENT

The CONSULTANT will perform the tasks as outlined in the scope of services above.

Tasks 1 through 7 shall be performed for the Lump Sum Fee Amount of Seventy-Five Thousand Dollars (\$75,000.00) detailed in **Table 2** below and further detailed in **Attachment 1, Staffing Cost Proposal**.

Table 2 – Budget Summary

Description	Total
TASK 1 – Design Phase Services – Main WTP	\$25,000
TASK 2 – Bid Phase Services – Main WTP	\$4,000
TASK 3 – Construction Phase Services – Main WTP	\$7,000
TASK 4 – Design Phase Services – RL Pratt WTP	\$25,000
TASK 5 – Bid Phase Services – RL Pratt WTP	\$4,000
TASK 6 – Construction Phase Services – RL Pratt WTP	\$7,000
TASK 7 – Project Management and Meetings	\$3,000
TOTAL LUMP SUM FEE AMOUNT	\$75,000

V. **ASSUMPTIONS**

- No Survey, Geotech or soft digs of existing utilities are included in this work authorization.
- VILLAGE will publicly advertise the project for bidding.
- The project will be awarded to one (1) contractor
- The bid package will consist of a set of drawings for each WTP and one set of technical specifications
- The project will be bid out as a single contract for both WTPs
- No progress meetings will be held during construction.

VI. **AGREEMENT REFERENCE**

The work authorized under this Work Authorization shall be performed under the terms and conditions described within the Professional Services Agreement dated June 13, 2024, by and between the Village of Palm Springs ("VILLAGE") and Kimley-Horn and Associates, Inc. ("CONSULTANT"). Compensation shall not exceed the hourly rates currently in effect under this Agreement.

Kimley-Horn and Associates, Inc.

By: 

Print Name: Jason R. Lee, P.E.

Title: Vice President

Village of Palm Springs

By: _____

Print Name: _____

Date: _____

Village Attorney's Office

Approved as to form and legality

by: _____

(Required if over \$25,000)

CONTINUING PROFESSIONAL SERVICES AGREEMENT RFQ#2024R-001

THIS **CONTINUING PROFESSIONAL SERVICES AGREEMENT** ("Agreement") is entered on 06/13/2024, by and between the **Village of Palm Springs**, a Florida municipal corporation ("Village") and Kimley Horn & Associates, Inc., a Consulting Engineer Firm registered to do business in the State of Florida ("CONSULTANT").

RECITALS

WHEREAS, the Village issued Request for Qualifications (No. 2024R-001) for civil engineering, geotechnical engineering, surveying, architecture, hydrogeological services, transportation and mobility planning, water utility engineering services, construction management and project management and related professional services in accordance with the Consultants' Competitive Negotiations Act, section 287.055, Florida Statutes ("RFQ"); and

WHEREAS, the CONSULTANT submitted its qualifications in response to the RFQ; and

WHEREAS, the Village desires to award the RFQ to the CONSULTANT based on CONSULTANT's qualifications and experience to provide _____ Services; and

WHEREAS, the CONSULTANT has significant experience in assisting municipal organizations in providing engineering services; and

WHEREAS, this Agreement may be funded, in whole or in part, by the Federal agencies, in which case, the CONSULTANT agrees that any services performed pursuant to the RFQ, and this Agreement will comply with all applicable Federal law, Federal regulations, executive orders, FEMA policies, procedures, and directives and special clauses as provided for in **Exhibit "C"**; and

WHEREAS, the purpose of this Agreement is to set forth certain terms and conditions for the provision of services by the CONSULTANT to the Village; and,

WHEREAS, the Village finds entering this Agreement with the CONSULTANT serves a valid public purpose.

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained, the sufficiency of which is hereby acknowledged by the parties, the Village and the CONSULTANT agree as follows:

SECTION 1: INCORPORATION OF RECITALS. The foregoing Recitals are incorporated into this Agreement by reference and acknowledged as true and correct statements.

SECTION 2: CONSULTANT'S SERVICES. The Village has awarded the CONSULTANT the non-exclusive right to provide the Village with services.

SECTION 3: INDEPENDENT CONTRACTOR RELATIONSHIP. No relationship of employer or employee is created by this Agreement, it being understood that CONSULTANT will act hereunder as an independent contractor and none of the CONSULTANT's, officers, directors, employees, independent contractors, representatives or agents performing services for CONSULTANT pursuant to this Agreement shall have any claim under this Agreement or otherwise against the Village for compensation of any kind under this Agreement. The relationship between the Village and CONSULTANT is that of independent contractors, and neither shall be considered a joint venturer, partner, employee, agent, representative or other relationship of the other for any purpose expressly or by implication.

SECTION 4: TERM, TIME AND TERMINATION.

(a) Term. This non-exclusive Agreement shall become effective upon approval by the Village Council and execution by the Village, and shall have an initial term of three (3) years with three (3) optional, one (1) year renewals. The Village Manager is authorized to exercise the optional one (1) year renewals. Each fiscal year of this Agreement and any renewals will be subject to the availability of funds lawfully appropriated for its purpose by the Village Council. Notwithstanding the foregoing, this Agreement may be terminated as stated herein.

(b) Time for Completion. Time is of the essence in the performance of this Agreement. The CONSULTANT shall at all times carry out its duties and responsibilities as expeditiously as possible and in accordance with the project schedule set forth by the Village.

(c) Force Majeure. Neither party hereto shall be liable for its failure to perform hereunder due to any circumstances beyond its reasonable control, such as acts of God, wars, riots, national emergencies, sabotage, strikes, labor disputes, accidents, and governmental laws, ordinances, rules, regulations, epidemic or pandemic. The CONSULTANT or Village may suspend its performance under this Agreement as a result of a force majeure without being in default of this Agreement, but upon the removal of such force majeure, the CONSULTANT or Village shall resume its performance as soon as is reasonably possible. Upon the CONSULTANT's request, the Village shall consider the facts and extent of any failure to perform the services and, if the CONSULTANT's failure to perform was without its or its sub-consultants' fault or negligence, the schedule and/or any other affected provision of this Agreement may be revised accordingly, subject to the Village's rights to change, terminate, or stop any or all of the services at any time. No extension shall be made for delay occurring more than seven (7) days before notice of delay or claim therefore is made in writing to the Village. In the case of continuing cause of delay, only one (1) notice of delay or claim is necessary.

(d) Termination without cause. Either party may terminate this Agreement at any time with or without cause by giving not less than thirty (30) days written notice of termination.

(e) Termination for cause. Either party may terminate this Agreement at any time in the event that the other party engages in any act or makes any omission constituting a material breach of any term or condition of this Agreement. The party electing to terminate this Agreement shall provide the other party with written notice specifying the nature of the breach. The party receiving the notice shall then have three (3) days from the date of the notice in which to commence to remedy the breach. If such corrective action is not taken within three (3) days, then this Agreement shall terminate at the end of the three (3) day period without further notice or demand.

(f) Early Termination. If this Agreement is terminated before the completion of all services by either party, the CONSULTANT shall:

1. Stop services on the date and to the extent specified including without limitation services of any sub-consultants.
2. Transfer all work in progress, completed work, and other materials related to the terminated services to the Village in the format acceptable to Village.
3. Continue and complete all parts of the services that have not been terminated.

(g) Effect of Termination. Termination of this Agreement shall not affect any rights, obligations, and liabilities of the parties arising out of transactions which occurred prior to termination. Notwithstanding the foregoing, the parties acknowledge and agree that the Village is a municipal corporation and political subdivision of the state of Florida, and as such, this Agreement is subject to budgeting and appropriation by the Village of funds sufficient to pay the costs associated herewith in any fiscal year of the Village. Notwithstanding anything in this Agreement to the contrary, in the event that no funds are appropriated or budgeted by the Village's governing board in any fiscal year to pay the costs associated with the Village's obligations under this Agreement, or in the event the funds budgeted or appropriated are, or are estimated by the Village to be, insufficient to pay the costs associated with the Village's obligations hereunder in any fiscal period, then the Village will notify CONSULTANT of such occurrence and either the Village or CONSULTANT may terminate this Agreement by notifying the other in writing, which notice shall specify a date of termination no earlier than twenty-four (24) hours after giving of such notice. Termination in accordance with the preceding sentence shall be without penalty or expense to the Village of any kind whatsoever; however, Village shall pay CONSULTANT for all services performed under this Agreement through the date of termination.

SECTION 5: COMPENSATION.

(a) Fee Schedule. The fee schedule attached as **Exhibit "B"** shall remain

firm for the first three (3) years of this Agreement. After the first three (3) years, the CONSULTANT may request a change to the fee schedule. No changes to the fee schedule shall occur unless approved in writing by the Village, which may be by an approved amendment signed by the Village Manager. The fee schedule shall be the basis for all fees proposed by the CONSULTANT and in any approved task order. Notwithstanding anything in the Agreement to the contrary, CONSULTANT may submit a written request for an equitable adjustment of the fees or other compensation payable by the Village to CONSULTANT if, after the date of this Agreement, there is a change in applicable laws increasing the amount of taxes (excluding taxes based on net income or equity), tariffs, levies, customs, or duties directly payable by CONSULTANT under the Agreement or any applicable task order. The written request must include supporting documentation for the equitable adjustment and provide sufficient detail for the Village's consideration. The Village shall consider the written request and if the documentation provided establishes that the CONSULTANT is entitled to the equitable adjustment, the Village may approve the equitable adjustment subject to the Village's annual budgeting limitations.

(b) Task Order(s). This non-exclusive Agreement does not guarantee that the Village will utilize CONSULTANT in any capacity or for any services identified herein. When the Village identifies a need for the CONSULTANT's services, the Village will request a proposal from the CONSULTANT to provide the services requested. The CONSULTANT's proposal shall be submitted in the format of the sample task order, attached hereto and incorporated herein as **Exhibit "A"** and shall be based on the CONSULTANT's currently hourly fee set forth in the CONSULTANT's proposal and attached hereto as **Exhibit "B"**. If a sub-consultant(s) is to be utilized for services under a task order, the CONSULTANT shall obtain a written proposal from the sub-consultant(s) and attach the same with to the CONSULTANT's proposal submitted to the Village. Upon receipt of the CONSULTANT's proposal, the Village shall decide in its sole discretion whether to award the task order to the CONSULTANT. Depending on the lump sum, not to exceed amount of each proposed task order, the task order may be awarded by the Village Manager (if \$35,000 or less) or the Village Council. If the task order is awarded to the CONSULTANT, the CONSULTANT shall commence the identified services upon receipt of a Notice to Proceed from the Village or upon the CONSULTANT's receipt of a fully executed task order for the services. The Village reserves the right to reject any and all proposals submitted by the CONSULTANT.

(c) Invoices. Unless otherwise agreed in an issued Task Order, the CONSULTANT shall render monthly invoices to the Village for services that have been rendered in conformity with this Agreement in the previous month. The invoices shall specify the services performed and the time spent on such work. All reimbursable expenses shall also be clearly identified on the invoice with supporting documentation. All invoices shall be submitted to:

Village of Palm Springs
Attn: Finance Department
226 Cypress Lane
Palm Springs, FL 33461

The Village's authorized representative or designee and Finance Department will review

each invoice submitted by the CONSULTANT. If approved, the Village will make payment in accordance with this Agreement. If not approved, the Village will notify the CONSULTANT within fifteen (15) business days of the Village's receipt and identify the action necessary to correct the invoice or a deficiency. Invoices will normally be paid within thirty (30) days following the Village's receipt of the CONSULTANT's invoice.

(d) Reimbursable Expenses. The CONSULTANT's reimbursable, out-of-pocket expenses including, but not limited to, travel, per diem and other living expenses, shall be identified in an approved task order. The Village shall not be responsible for payment of any such reimbursable, out-of-pocket expenses except as provided for in an approved task order or amendment thereto. Reimbursement for mileage shall only be for travel required outside of Palm Beach County. CONSULTANT shall not be reimbursed for travel within Palm Beach County and all travel shall be proposed and reimbursed pursuant to section 112. 061, Florida Statutes.

(e) Direct Project Expenses. Unless otherwise specifically stated in an approved task order, charges for printing, reproduction, use of computer-aided design equipment, field equipment, and any laboratory analysis performed by the CONSULTANT or its subconsultants or its subcontractors, and the use of the CONSULTANT's and employee's automobiles shall be identified in an approved task order. The Village shall not be responsible for payment of any other direct project expenses. All direct project expenses shall be billed at cost to the Village and the CONSULTANT shall not mark-up or charge an administrative fee in addition to the direct cost for such expenses.

(f) Additional Services. If the Village seeks to utilize the CONSULTANT for any additional services related to the services identified herein, the Village and CONSULTANT will meet and negotiate a reasonable fee for such services. The negotiated fee shall be approved by the Village in the form of an Amendment prior to said services being provided.

(g) Status Report. The CONSULTANT shall complete and submit a technical summary and budgetary status report with each invoice at no additional cost to the Village (format may be provided by Village or CONSULTANT for each approved task order).

(h) Fiscal Non-funding. In the event sufficient budgeted funds are not available for a new fiscal period, the Village shall notify the CONSULTANT of such occurrence and this Agreement shall terminate on the last day of the current fiscal period without penalty or expense to the Village. The CONSULTANT will be paid for all services rendered through the date of termination.

SECTION 6: TERMS OF PERFORMANCE

(a) Starting Work. The CONSULTANT will not begin any of the services until authorized in writing by a Notice to Proceed from the Village or upon the CONSULTANT's receipt of an approved Task Order for the services.

(b) Ownership of Documents. The drawings, specifications, calculations,

supporting documents, or other work products which are prepared for the Village by the CONSULTANT under this Agreement, a Village issued Task Order, or amendments thereto ("Work Product"), shall be and shall become the property of the Village upon delivery or completion by the CONSULTANT or receipt of payment from the Village for the same. The CONSULTANT may keep copies or samples thereof and shall have a royalty-free, non-exclusive license to use such Work Product. The Village accepts sole responsibility for its reuse of any Work Product in a manner other than as initially intended, or for any use of incomplete Work Product unless prior written approval is obtained from the CONSULTANT.

(c) Accounting Records. The CONSULTANT's accounting records, insofar as they pertain to invoicing the Village or for disbursements made from the CONSULTANT's account for services under this Agreement shall be open to Village's inspection and audit at the CONSULTANT's office upon reasonable prior notice and during normal business hours. Notwithstanding the foregoing, the Village shall not be entitled to audit any records of the CONSULTANT which reveal individual pricing components, multipliers, or other unit pricing of the CONSULTANT's hourly rates charged to the Village under this Agreement. Backup documentation for out-of-pocket expenses exceeding Twenty-Five Dollars (\$25.00) each shall be available at the CONSULTANT's office. These records will be retained by the CONSULTANT for five (5) years after the calendar year in which the services to which they pertain were rendered or the disbursements were made.

(d) Approval of Changes. The Village, through the Village Manager, must approve in writing any changes in the scope of services which result in additional costs or expenses to the Village, extension of the schedule or which would change the underlying purpose of the services. Changes include, but are not limited to, issuing additional instructions, requesting additional work, direct omission of work previously ordered, or changes in time of performance.

(e) Authorized Representative. Before starting work, the CONSULTANT shall designate an authorized representative acceptable to the Village to represent and act for the CONSULTANT and shall inform the Village in writing of the name and address of such representative together with a clear definition of the scope of their authority. The CONSULTANT shall keep the Village informed of any subsequent changes in the foregoing. The authorized representative of the Village shall be the Village Manager or designee.

(f) Design/Construction Phase Services. Visits to construction sites and observations made by the CONSULTANT as part of construction phase services, if any, shall not relieve the construction contractor(s) of obligation to conduct comprehensive inspections of the work sufficient to insure conformance with the intent of the construction contract documents, and shall not relieve the construction contractor(s) of full responsibility for all construction means, methods, techniques, sequences, and procedures necessary for coordinating and completing all portions of the work under the construction contract(s) and for all safety precautions incidental thereto. Safety precautions administered by the CONSULTANT, if any, to protect the CONSULTANT's personnel shall meet those policies enacted by the Village. Further, CONSULTANT shall endeavor to make reasonable efforts to guard the Village against defects and

deficiencies in the services of the construction contractor(s) and to help determine if the provisions of the construction contract documents are being fulfilled. This paragraph does not, however, release the CONSULTANT from any liability which might be attributable to its negligent acts, errors, or omissions, including but not limited to design, construction phase services, or other services as defined in this Agreement, of the CONSULTANT.

(g) Personnel. The CONSULTANT represents that it has, or will secure at its own expense, all necessary personnel required to perform the services under this Agreement. Such personnel shall not be employees of or have any contractual relationship with the Village. All of the services required hereunder shall be performed by the CONSULTANT or under its supervision, and all personnel engaged in performing the services shall be fully qualified and, if required, authorized or permitted under state and local law to perform such services. The CONSULTANT shall furnish services in a manner consistent with industry standards and to a level of professional skill generally acceptable in the industry with regard to services of this kind. All of the CONSULTANT's personnel (and all subconsultants) while on Village premises, will comply with all Village requirements governing conduct, safety, and security. The Village reserves the right to request replacement of any of CONSULTANT's personnel furnished by the CONSULTANT upon written notice by Village to CONSULTANT of the cause for such replacement.

(h) Conflict of Interest. The CONSULTANT represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder, as provided for in Section 112.311, Florida Statutes. The CONSULTANT further represents that no person having any such conflicting interest shall be employed for said performance. The CONSULTANT shall promptly notify the Village's representative, in writing, of all potential conflicts of interest for any prospective business association, interest or other circumstance which may influence or appear to influence the CONSULTANT'S judgment or quality of services being provided hereunder. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that the CONSULTANT may undertake and request an opinion of the Village as to whether the association, interest or circumstance would, in the opinion of the Village, constitute a conflict of interest if entered into by the CONSULTANT. The Village agrees to notify the CONSULTANT of its opinion within thirty (30) days of receipt of notification by the CONSULTANT. If, in the opinion of the Village, the prospective business association, interest or circumstance would not constitute a conflict of interest by the CONSULTANT, the Village shall so state in the notification and the CONSULTANT shall, at its option, enter into said association, interest or circumstance and it shall be deemed not in conflict of interest with respect to services provided to the Village by the CONSULTANT under the terms of this Agreement.

(i) News Releases / Publicity. The CONSULTANT shall not make any news releases, publicity releases, or advertisements relating to this Agreement or the services hereunder without prior written Village approval.

SECTION 7: VILLAGE'S RESPONSIBILITIES

(a) Service of Others. The Village shall furnish to the CONSULTANT, if required for performance of the Consultant's services, all available data prepared by or the result of the services of others, including without limitation (as may be appropriate): building plans and related drawings, core borings, probings, and subsurface explorations, hydraulic surveys, laboratory tests, and inspections of samples, materials, and equipment, appropriate professional interpretations of all of the foregoing; environmental assessments and impact statements, appropriate professional interpretations of all of the foregoing; property boundary, easement, rights-of-way, topographic and utility surveys; property descriptions; zoning, deed, and other land use restrictions; and any other special data or consultations relating to the Project.

(b) Examine Work of the Consultant. Within a reasonable time so as not to delay the services of the CONSULTANT, the Village shall examine all studies, reports, sketches, drawings, specifications, proposals, and other documents presented by the CONSULTANT, obtain advice of an attorney, insurance counselor, or other consultants, as the Village deems appropriate, for such examinations and the rendering, if required, of written opinions pertaining thereto.

SECTION 8: SUSPENSION BY VILLAGE FOR CONVENIENCE. The Village may, at any time without cause, order CONSULTANT in writing to suspend, delay or interrupt its services in whole or in part for such period of time as Village may determine for Village's convenience. Such order shall be by written notice to the CONSULTANT providing at least ten (10) days advance notice unless such order is immediately necessary for the protection of the public health, safety or welfare or for the protection of property.

SECTION 9: INDEMNIFICATION. The CONSULTANT shall indemnify and hold harmless the Village, including its officers and employees, from liabilities, damages, losses, and costs, including but not limited to reasonable attorney's fees (at the trial and appellate levels) to the extent caused by the negligence of the CONSULTANT, its officers, directors, employees, representatives, and agents employed or utilized by the CONSULTANT in the performance of the services under this Agreement. The Village agrees to be responsible for its own negligence. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Village or the CONSULTANT, nor shall this Agreement be construed as a waiver of sovereign immunity for the Village beyond the waiver provided in section 768.28, Florida Statutes.

SECTION 10: COMPLIANCE AND DISQUALIFICATION. Each of the parties agrees to perform its responsibilities under this Agreement in conformance with all laws, regulations and administrative instructions that relate to the parties' performance of this Agreement.

SECTION 11: SUB-CONSULTANTS. The Village reserves the right to accept the use of a subconsultant or to reject the selection of a particular subconsultant and approve all qualifications of any subconsultant in order to make a determination as to the capability of the subconsultant to perform properly under this Agreement. All subconsultants providing professional services to the CONSULTANT under this Agreement will also be required to provide their own insurance coverage identical to those contained in this Agreement for the CONSULTANT. In the event that a subconsultant does not have

insurance or does not meet the insurance limits as stated in this Agreement, the CONSULTANT shall indemnify and hold harmless the Village for any claim in excess of the subconsultant's insurance coverage, arising out of the negligent acts, errors or omissions of the subconsultant. Nothing contained herein shall create any contractual relationship between any subconsultant and the Village.

SECTION 12: FEDERAL AND STATE TAX. The Village is exempt from payment of Florida State Sales and Use Tax. The CONSULTANT is not authorized to use the Village's Tax Exemption Number.

SECTION 13: INSURANCE. Prior to commencing any services, the CONSULTANT shall provide proof of insurance coverage as required hereunder. Such insurance policy(s) shall be issued by the United States Treasury or insurance carriers approved and authorized to do business in the State of Florida, and who must have a rating of no less than "excellent" by A.M. Best or as mutually agreed upon by the Village and the CONSULTANT. All such insurance policies may not be modified or terminated without the express written authorization of the Village.

<u>Type of Coverage</u>	<u>Amount of Coverage</u>
Professional liability/ Omissions	\$1,000,000 per occurrence Errors and
Commercial general liability (Products/completed operations Contractual, insurance broad form property, Independent Contractor, personal injury)	\$1,000,000 per occurrence \$2,000,000 annual aggregate
Automobile (owned, non-owned, & hired)	\$1,000,000 single limits
Worker's Compensation	\$ statutory limits

The commercial general liability and automobile policies will name the Village as an additional insured on primary, non-contributory basis and proof of all insurance coverage shall be furnished to the Village by way of an endorsement to same or certificate of insurance prior to the provision of services. The certificates shall clearly indicate that the CONSULTANT has obtained insurance of the type, amount, and classification as required for strict compliance with this section. Failure to comply with the foregoing requirements shall not relieve CONSULTANT of its liability and obligations under this Agreement.

Additional Insured status shall be provided pursuant and subject to ISO Form CG 20 10 12 19 (ongoing operations) and, if applicable, CG 20 37 12 19 (completed operations), or equivalent forms for coverages other than Commercial General Liability, to the extent that the loss or claim in question is caused by the CONSULTANT's negligence in its operations in and during the performance of the services, and to no greater extent than is necessary to provide insurance coverage for the covered indemnity obligations expressly assumed by CONSULTANT under this Agreement, it being the express intent and understanding of the Parties that, up to specified limits, additional insured status is

provided hereunder as a support to performance of CONSULTANT's expressly assumed, covered indemnity obligations hereunder.

SECTION 14: SUCCESSORS AND ASSIGNS. The Village and the CONSULTANT each binds itself and its partners, successors, executors, administrators, and assigns to the other party of this Agreement and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement. Except as agreed in writing by all parties, this Agreement is not assignable.

SECTION 15: DISPUTE RESOLUTION, LAW, VENUE AND REMEDIES. All claims arising out of this Agreement, or its breach shall be submitted first to mediation. The parties shall share the mediator's fee equally. The mediation shall be held in Palm Beach County, Florida. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof. This Agreement shall be governed by the laws of the State of Florida. Venue for any and all legal action necessary to enforce the Agreement or disputes arising out of the Agreement will be held exclusively in Palm Beach County, Florida. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

SECTION 16: WAIVER OF JURY TRIAL. TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THIS AGREEMENT.

SECTION 17: NONDISCRIMINATION. The CONSULTANT warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, or sexual orientation.

SECTION 18: AUTHORITY TO PRACTICE. The CONSULTANT hereby represents and warrants that it has and will continue to maintain all licenses and approvals required to conduct its business and provide the services required under this Agreement, and that it will at all times conduct its business and provide the services under this Agreement in a reputable manner. Proof of such licenses and approvals shall be submitted to the Village upon request.

SECTION 19: SEVERABILITY. If any term or provision of this Agreement, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, to remainder of this Agreement, or the application of such terms or provision, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this Agreement shall be deemed valid and enforceable to the extent permitted by law.

SECTION 20: PUBLIC ENTITY CRIMES. CONSULTANT acknowledges and agrees that a person or affiliate who has been placed on the convicted vendor list following a

conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier or subcontractor under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list. The CONSULTANT will advise the Village immediately if it becomes aware of any violation of this statute.

SECTION 21: NOTICE. All notices required in this Agreement shall be sent by hand-delivery, certified mail (RRR), or by nationally recognized overnight courier, and if sent to the VILLAGE shall be sent to:

**Village of Palm Springs
Attn: Village Manager
226 Cypress Lane
Palm Springs, FL 33461**

and if sent to the CONSULTANT, shall be sent to:

**Kimley Horn & Associates, Inc.
1920 Wekiva Way, Ste #200
West Palm Beach, FL 33411**

The foregoing names and addresses may be changed if such change is provided in writing to the other party. Notice shall be deemed given upon receipt.

SECTION 22: ENTIRETY OF AGREEMENT AND CONTROLLING PROVISIONS. This Agreement

consists of the terms and conditions set forth in this Agreement (inclusive of all exhibits hereto) and any Village issued Task Orders. The parties agree to be bound by all the terms and conditions set forth in the aforementioned documents. To the extent that there exists a conflict between the terms and conditions of this Agreement (inclusive of all exhibits hereto) and a Village issued Task Order, the terms and conditions of this Agreement shall prevail with the Village issued Task Order next taking precedence. Wherever possible, the provisions of such documents shall be construed in such a manner as to avoid conflicts between provisions of the various documents. None of the provisions, terms and conditions contained in this Agreement may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto.

SECTION 23: WAIVER. Failure of a party to enforce or exercise any of its right(s) under this Agreement shall not be deemed a waiver of that parties' right to enforce or exercise said right(s) at any time thereafter.

SECTION 24: PREPARATION AND NON-EXCLUSIVE. This Agreement shall not be construed more strongly against either party regardless of who was more responsible for its preparation. This is a non- exclusive Agreement, and the Village reserves the

right to contract with individuals or firms to provide the same or similar services.

SECTION 25: MATERIALITY. All provisions of the Agreement shall be deemed material. In the event CONSULTANT fails to comply with any of the provisions contained in this Agreement or exhibits, amendments and addenda attached hereto, said failure shall be deemed a material breach of this Agreement and Village may at its option provide notice to the CONSULTANT to terminate for cause.

SECTION 26: LEGAL EFFECT. This Agreement shall not become binding and effective until approved by the Village Commission. The Effective Date is the date this Agreement is executed by the Village.

SECTION 27: NOTICE OF COMPLAINTS, SUITS AND REGULATORY VIOLATIONS. Each party will promptly notify the other of any complaint, claim, suit or cause of action threatened or commenced against it which arises out of or relates, in any manner, to the performance of this Agreement. Each party agrees to cooperate with the other in any investigation either may conduct, the defense of any claim or suit in which either party is named, and shall do nothing to impair or invalidate any applicable insurance coverage.

SECTION 28: SURVIVABILITY. Any provision of this Agreement which is of a continuing nature or imposes an obligation which extends beyond the term of this Agreement shall survive its expiration or earlier termination.

SECTION 29: COUNTERPARTS. This Agreement may be executed in one or more counterparts electronically or digitally, each of which shall be deemed an original, and will become effective and binding upon the parties at such time as all the signatories hereto have signed a counterpart of this Agreement.

SECTION 30: PALM BEACH COUNTY IG. In accordance with Palm Beach County ordinance number 2011-009, the CONSULTANT acknowledges that this Agreement may be subject to investigation and/or audit by the Palm Beach County Inspector General. The CONSULTANT has reviewed Palm Beach County ordinance number 2011-009 and is aware of its rights and/or obligations under such ordinance.

SECTION 31: REPRESENTATIONS AND BINDING AUTHORITY. By signing this Agreement, on behalf of the CONSULTANT, the undersigned hereby represents to the Village that he or she has the authority and full legal power to execute this Agreement and any and all documents necessary to effectuate and implement the terms of this Agreement on behalf of the CONSULTANT for whom he or she is signing and to bind and obligate such party with respect to all provisions contained in this Agreement.

SECTION 32: PUBLIC RECORDS. The CONSULTANT shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the Village as provided under section 119.011(2), Florida Statutes, specifically agrees to:

(a) Keep and maintain public records required by the Village to perform the service.

(b) Upon request from the Village's custodian of public records or designee, provide the Village with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

(c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of this Agreement and following completion of this Agreement if the CONSULTANT does not transfer the records to the Village.

(d) Upon completion of this Agreement, transfer, at no cost, to the Village all public records in possession of the CONSULTANT or keep and maintain public records required by the Village to perform the service. If the CONSULTANT transfers all public records to the Village upon completion of the Agreement, the CONSULTANT shall destroy any duplicate public records that are exempt or confidential or exempt from public records disclosure requirements. If the CONSULTANT keeps and maintains public records upon completion of the Agreement, the CONSULTANT shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Village, upon request from the Village's custodian of public records or designee, in a format that is compatible with the information technology systems of the Village.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (561) 584-8200 Ext. 8431, kwynn@vpsfl.org, OR BY MAIL SENT TO THE PALM SPRINGS VILLAGE, 226 CYPRESS LANE, PALM SPRINGS, FL 33461.

SECTION 33: CONFIDENTIAL AND PROPRIETARY INFORMATION. Each party (the "Receiving Party") will keep confidential and not disclose to any other person or entity or use (except as expressly and unambiguously authorized by this Agreement) information, technology or software ("Confidential Information") obtained from the other party (the "Disclosing Party"); provided, however, that the Receiving Party will not be prohibited from disclosing or using information (i) that at the time of disclosure is publicly available or becomes publicly available through no act or omission of the Receiving Party, (ii) that is or has been disclosed to the Receiving Party by a third party who is not under, and to whom the Receiving Party does not owe, an obligation of confidentiality with respect thereto, (iii) that is or has been independently acquired or developed by the Receiving Party without access to the Disclosing Party's Confidential Information, (iv) that is already in the Receiving Party's possession at the time of disclosure, or (v) that is required to be released by law. Notwithstanding the foregoing, the parties may share confidential information with their affiliates, officers, employees, agents, subcontractors, and similar persons but only to the extent such confidential information is necessary for the performance of the services and this Agreement.

SECTION 34: EXPORT ADMINISTRATION. Each party agrees to comply with all export laws and regulations of the United States (“Export Laws”) to assure that no software deliverable, item, service, technical data or any direct product thereof arising out of or related to this Agreement is exported directly or indirectly (as a physical export or a deemed export) in violation of Export Laws.

SECTION 35: NO THIRD-PARTY BENEFICIARIES. There are no third party beneficiaries under this Agreement.

SECTION 36: SCRUTINIZED COMPANIES.

(a) The CONSULTANT certifies that it and its subconsultants are not on the Scrutinized Companies that Boycott Israel List and are not engaged in the boycott of Israel. Pursuant to section 287.135, Florida Statutes, the Village may immediately terminate this Agreement at its sole option if the CONSULTANT or any of its subconsultants are found to have submitted a false certification; or if the CONSULTANT or any of its subconsultants, are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of this Agreement.

(b) If this Agreement is for one million dollars or more, the CONSULTANT certifies that it and its subconsultants are also not on the Scrutinized Companies with Activities in Sudan List, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or engaged in business operations in Cuba or Syria as identified in Section 287.135, Florida Statutes. Pursuant to Section 287.135, the Village may immediately terminate this Agreement at its sole option if the CONSULTANT or any of its subconsultants are found to have submitted a false certification; or if the CONSULTANT or any of its subconsultants are placed on the Scrutinized Companies with Activities in Sudan List, or Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or are or have been engaged with business operations in Cuba or Syria during the term of this Agreement.

(c) The CONSULTANT agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under this Agreement.

(d) The CONSULTANT agrees that the certifications in this section shall be effective and relied upon by the Village for the term of this Agreement, including any and all renewals.

(e) The CONSULTANT agrees that if it or any of its subconsultants’ status changes in regard to any certification herein, the CONSULTANT shall immediately notify the Village of the same.

(f) As provided in Subsection 287.135(8), Florida Statutes, if federal law ceases to authorize the above stated contracting prohibitions then they shall become inoperative.

SECTION 37: E-VERIFY. Pursuant to Section 448.095(2), Florida Statutes, beginning

on January 1, 2021, the CONSULTANT shall:

(a) Register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all subconsultants (providing services or receiving funding under this Agreement) to register with and use the E-Verify system to verify the work authorization status of all the subconsultants' newly hired employees;

(b) Secure an affidavit from all subcontractors (providing services or receiving funding under this Agreement) stating that the subconsultant does not employ, contract with, or subcontract with an "unauthorized alien" as defined in Section 448.095(1)(k), Florida Statutes;

(c) Maintain copies of all subconsultant affidavits for the duration of this Agreement and provide the same to the Village upon request; and

(d) Comply fully, and ensure all subconsultant comply fully, with Section 448.095, Florida Statutes; and

(e) Be aware that a violation of Section 448.09, Florida Statutes (Unauthorized Aliens; Employment Prohibited) shall be grounds for termination of this Agreement; and,

(f) Be aware that if the Village terminates this Agreement under Section 448.095(2)(c), Florida Statutes, the CONSULTANT may not be awarded a contract for at least one (1) year after the date on which the Agreement is terminated and will be liable for any additional costs incurred by the Village as a result of the termination of the Agreement.

SECTION 38: WAIVER OF CONSEQUENTIAL DAMAGES. In no event shall either party (including their subcontractors and affiliates) be liable to the other in contract, in tort, by operation of law, or otherwise for any loss of profit or revenue or for any special, consequential, incidental, indirect, exemplary or punitive damages of any kind arising out of or relating to performance or non-performance of this Agreement.

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SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the parties hereto have made and executed this Continuing Professional Services Agreement for Consulting Services as of the day and year set forth above.

VILLAGE OF PALM SPRINGS, FLORIDA

By: 
Bev Smith, Mayor

ATTEST:

Kimberly Wynn

Kimberly Wynn, Village Clerk

Approved as to form and legal sufficiency:

Christy Goddeau
Christy Goddeau (Jun 20, 2024 13:03 EDT)

Christy Goddeau, Village Attorney

Kimley Horn & Associates

CONSULTANT: *Michael F Schwartz*
Michael F Schwartz (Jun 20, 2024 15:36 EDT)

By: _____

Print Name: Michael F. Schwartz, P

Title: Senior Vice President

[Corporate Seal]

EXHIBIT "A"
(Sample Task Order)

[Note: Task Order Number will be issued by the Village, leave the line number empty].

TASK ORDER NO.

**CONTINUING PROFESSIONAL SERVICES
(_____ Services)**

THIS TASK ORDER FOR CONTINUING PROFESSIONAL SERVICES ("Task Order") is made on the day of _____, between the **Village of Palm Springs**, a Florida municipal corporation ("Village") and _____, a _____ authorized to do business in the State of Florida ("CONSULTANT").

1.0 Project Description:

The Village desires the CONSULTANT to provide those services as identified herein for the Project. The Project is described in the CONSULTANT's Proposal, dated _____ and services are generally described as: _____ (the "Project").

2.0 Scope

Under this Task Order, the CONSULTANT will provide the Village with _____ Services for the Project as specified in the **CONSULTANT's proposal attached hereto and incorporated herein as Exhibit "1"**.

3.0 Schedule

The services to be provided under this Task Order shall be completed within _____ calendar days from the Village's approval of this Task Order or the issuance of a Notice to Proceed.

4.0 Compensation

This Task Order is issued for a lump sum, not to exceed amount of _____. The attached proposal identifies all costs and expenses included in the lump sum, not to exceed amount.

5.0 Project Manager

The Project Manager for the CONSULTANT is _____, phone (____);
email: _____; and, the Project Manager for the Village is _____,
phone: ____; email: ____.

6.0 Progress Meetings

The CONSULTANT shall schedule periodic progress review meetings with the Village Project Manager as necessary but every 30 days as a minimum.

7.0 Authorization

This Task Order is issued pursuant to the Continuing Professional Services Agreement (_____ Services) based on RFQ#24-____ between the Village and the CONSULTANT, dated _____ ("Agreement" hereafter). If there are any conflicts between the terms and conditions of this Task Order and the Agreement, the terms and conditions of the Agreement shall prevail; however, the specific scope of services herein shall prevail over any general scope of services.

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SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the parties hereto have made and executed this Task Order No. _____ as of the day and year set forth above.

VILLAGE OF PALM SPRINGS, FLORIDA

By: _____
Bev Smith, Mayor

ATTEST:

Kimberly Wynn, Village Clerk

Approved as to form and legal sufficiency:

Christy Goddeau, Village Attorney

CONSULTANT: SAMPLE TASK ORDER / DO NOT SIGN

By: _____

Print Name: _____

Title: _____

[Corporate Seal]

Exhibit “B”
Consultant’s Rate Schedule



Kimley-Horn and Associates, Inc.

Rate Schedule (June 2024)

Village of Palm Springs

Classification	<i>Rate</i>
Senior Professional II	\$330.00
Senior Professional I	\$270.00
Professional II	\$215.00
Professional I	\$185.00
Analyst II	\$165.00
Analyst I	\$135.00
Senior Technical Support Staff	\$185.00
Technical Support Staff	\$135.00
Support Staff / Admin	\$105.00

Notes:

1. Billing rates listed in the table above are subject to 4% adjustment each July 1st.
2. The salary multiplier billing rates include all payroll burden, overheads, and profit.
3. Subconsultants will be billed per contract.

Exhibit "C"
Federal Contract Provisions

The Consultant hereby agrees that the following terms, at a minimum, will be incorporated into any subsequent Task Order resulting from this RFQ, which is funded in whole or in part with any federal or other funding where the following terms are applicable:

Equal Employment Opportunity. During the performance of the resulting contract, the Consultant agrees as follows:

(1) The Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Consultant will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Consultant will, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The Consultant will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Consultant's legal duty to furnish information.

(4) The Consultant will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Consultant will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Consultant will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the

Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Consultant's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Consultant will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246

of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Consultant will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Consultant becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Consultant may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a Consultant debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

Compliance with the Contract Work Hours and Safety Standards Act.

(1) Overtime requirements. No Consultant or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the Consultant and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Consultant and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages. DOJ, the State of Florida, or the VILLAGE shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Consultant or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Consultant or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts. The Consultant or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Consultant shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

Rights to Inventions Made Under a Contract or Agreement

If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2(a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Clean Air Act

(1) The Consultant agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

(2) The Consultant agrees to report each violation to the Village, and understands and agrees that the Village will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The Consultant agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by DOJ.

Federal Water Pollution Control Act

(1) The Consultant agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

(2) The Consultant agrees to report each violation to the VILLAGE and understands and agrees that the VILLAGE will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The Consultant agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by DOJ.

Suspension and Debarment.

(1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the Consultant is required to verify that none of the Consultant's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

(2) The Consultant must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) This certification, as laid out in Exhibit I, is a material representation of fact relied upon by the Village. If it is later determined that the Consultant did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State of Florida or the Village, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Byrd Anti-Lobbying Amendment.

Consultants who apply or bid for an award of \$100,000 or more shall file the required certification as laid out in Exhibit J. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

Procurement of Recovered materials.

(i) In the performance of this contract, the Consultant shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

- Competitively within a timeframe providing for compliance with the contract performance schedule;
- Meeting contract performance requirements; or
- At a reasonable price.

(ii) Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

(iii) The Consultant also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act."

Access to Records.

(1) The Consultant agrees to provide the State of Florida, the VILLAGE, the DOJ Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Consultant which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

(2) The Consultant agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

(3) The Consultant agrees to provide the Federal Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

(4) In compliance with the Disaster Recovery Act of 2018, the Village and the Consultant acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the DOJ Administrator or the Comptroller General of the United States.

DHS Seal, Logo, and Flags.

The Consultant shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific DOJ pre-approval.

Compliance with Federal Law, Regulations, and Executive Orders.

By signing this agreement, the Consultant acknowledges that federal financial assistance may be used to fund all or a portion of the contract. The Consultant will comply with all applicable Federal law, regulations, executive orders, federal policies, procedures, and directives.

No Obligation by Federal Government.

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, Consultant, or any other party pertaining to any matter resulting from the contract.

Program Fraud and False or Fraudulent Statements or Related Acts. The Consultant acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Consultant's actions pertaining to this contract.

Affirmative Steps. Required Affirmative Steps

If the Consultant intends to subcontract any portion of the work covered by this Contract, the Consultant must take all necessary affirmative steps to assure that small and minority businesses, women's business enterprises and labor surplus area firms are solicited and used when possible. Affirmative steps must include:

- (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
- (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and
- (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

Domestic preferences for procurements.

(1) As appropriate and to the extent consistent with law, the Consultant should purchase, acquire, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products).

(2) For purposes of this section:

(a) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(b) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

Prohibition of certain telecommunications and video surveillance services or equipment.

(3) The Consultant is prohibited from obligating or expending loan or grant funds to:

- (a) Procure or obtain;
- (b) Extend or renew a contract to procure or obtain; or
- (c) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security

purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

(4) In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), the Village shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS - LOWER-TIER COVERED TRANSACTIONS

This document is a covered transaction for purposes of the debarment and suspension regulations implementing Executive Order 12549, Debarment and Suspension (1986) and Executive Order 12689, Debarment and Suspension (1989) at 2 C.F.R. Part 3000 (Non- procurement Debarment and Suspension). As such, Consultant is required to confirm that none of the Consultant, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

INSTRUCTIONS FOR CERTIFICATION

1) By signing this Certification, the Consultant, also sometimes referred to herein as a prospective primary participant, is providing the certification set out below.

2) The inability of a Consultant to provide the certification required below will not necessarily result in denial of participation in the covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the Village's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3) The certification in this clause is a material representation of fact upon which reliance was placed when the Village determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Village, the Village may terminate this transaction for cause or default.

4) The prospective primary participant shall provide immediate written notice to the

Village if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5) The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal and voluntarily excluded, as used in this certification, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549.

6) The prospective primary participant agrees by signing the Addendum that it shall not knowingly enter into any lower tier covered transactions with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction. If it is later determined that the prospective primary participant knowingly entered into such a transaction, in addition to other remedies available to the Village, the Village may terminate this transaction for cause or default.

7) The prospective primary participant further agrees by signing this Addendum that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," as available through the United States Department of Homeland Security, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8) A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Non-procurement Programs.

9) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

Michael F. Schwartz
Michael F Schwartz (Jun 20, 2024 15:36 EDT)

Signature of Consultant's Authorized Official

Michael F. Schwartz, S

Name and Title of Consultant's Authorized Official

06/20/2024

Date

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Consultant, **Kimley Horn & Associates, Inc.**, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Consultant understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Michael F Schwartz
Michael F Schwartz (Jun 20, 2024 15:36 EDT)

Signature of Consultant's Authorized Official

Michael F. Schwartz, S

Name and Title of Consultant's Authorized Official

06/20/2024

Date

KHA Inc. Consulting Agmt 06.13.24

Final Audit Report

2024-06-20

Created:	2024-06-20
By:	Kimberly Wynn (kwynn@vpsfl.org)
Status:	Signed
Transaction ID:	CBJCHBCAABAAb7an5vecfEJJ7YRA5OQBvRNLDEdWVG5a

"KHA Inc. Consulting Agmt 06.13.24" History

-  Document created by Kimberly Wynn (kwynn@vpsfl.org)
2024-06-20 - 4:48:17 PM GMT- IP address: 151.132.2.218
-  Document emailed to bsmtih@vpsfl.org for signature
2024-06-20 - 4:51:10 PM GMT
-  Document emailed to Kimberly Wynn (kwynn@vpsfl.org) for signature
2024-06-20 - 4:51:10 PM GMT
-  Document emailed to christy@torcivialaw.com for signature
2024-06-20 - 4:51:10 PM GMT
-  Document emailed to tom.jensen@kimley-horn.com for signature
2024-06-20 - 4:51:10 PM GMT
-  Email sent to bsmtih@vpsfl.org bounced and could not be delivered
2024-06-20 - 4:51:17 PM GMT
-  Email viewed by christy@torcivialaw.com
2024-06-20 - 5:02:35 PM GMT- IP address: 173.162.99.81
-  Signer christy@torcivialaw.com entered name at signing as Christy Goddeau
2024-06-20 - 5:03:19 PM GMT- IP address: 173.162.99.81
-  Document e-signed by Christy Goddeau (christy@torcivialaw.com)
Signature Date: 2024-06-20 - 5:03:21 PM GMT - Time Source: server- IP address: 173.162.99.81
-  Email viewed by tom.jensen@kimley-horn.com
2024-06-20 - 5:29:54 PM GMT- IP address: 104.47.58.254
-  Document signing delegated to mike.schwartz@kimley-horn.com by tom.jensen@kimley-horn.com
2024-06-20 - 5:32:10 PM GMT- IP address: 134.238.172.9



Document emailed to mike.schwartz@kimley-horn.com for signature

2024-06-20 - 5:32:10 PM GMT



Kimberly Wynn (kwynn@vpsfl.org) added alternate signer bsmith@vpsboards.com. The original signer bsmth@vpsfl.org can still sign.

2024-06-20 - 5:46:34 PM GMT- IP address: 151.132.2.218



Document emailed to bsmith@vpsboards.com for signature

2024-06-20 - 5:46:34 PM GMT



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Document e-signed by Kimberly Wynn (kwynn@vpsfl.org)

Signature Date: 2024-06-20 - 5:48:48 PM GMT - Time Source: server- IP address: 151.132.2.218



Email viewed by bsmith@vpsboards.com

2024-06-20 - 6:05:19 PM GMT- IP address: 76.128.84.156



Signer bsmith@vpsboards.com entered name at signing as Bev Smith

2024-06-20 - 6:06:09 PM GMT- IP address: 76.128.84.156



Document e-signed by Bev Smith (bsmith@vpsboards.com)

Signature Date: 2024-06-20 - 6:06:12 PM GMT - Time Source: server- IP address: 76.128.84.156



Email sent to Bev Smith (bsmith@vpsboards.com) bounced and could not be delivered

2024-06-20 - 6:06:18 PM GMT- IP address: 76.128.84.156



Email viewed by mike.schwartz@kimley-horn.com

2024-06-20 - 7:33:04 PM GMT- IP address: 104.47.58.254



Signer mike.schwartz@kimley-horn.com entered name at signing as Michael F Schwartz

2024-06-20 - 7:36:38 PM GMT- IP address: 134.238.172.9



Document e-signed by Michael F Schwartz (mike.schwartz@kimley-horn.com)

Signature Date: 2024-06-20 - 7:36:41 PM GMT - Time Source: server- IP address: 134.238.172.9



Agreement completed.

2024-06-20 - 7:36:41 PM GMT

Fiscal Impact Statement

DESCRIPTION.	TOTAL.
TASK 1 – Design Phase Services – Main WTP.	\$25,000.00
TASK 2 – Bid Phase Services – Main WTP.	\$4,000.00
TASK 3 – Construction Phase Services – Main WTP.	\$7,000.00
TASK 4 – Design Phase Services – Main WTP.	\$25,000.00
TASK 5 – Bid Phase Services – RL Pratt WTP.	\$4,000.00
TASK 6 – Construction Phase Services – RL Pratt WTP.	\$7,000.00
TASK 7 – Project Management and Meetings.	\$3,000.00
TOTAL LUMP SUM FEE AMOUNT.	\$75,000.00



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Utilities

ITEM #9: Authorize Emergency Repair - Force Main Repair Florida Mango Road - Utilities (FY 2024 Budget - Water & Sewer Enterprise Fund)

SUMMARY: Following the break on the City of Lake Worth Beach's 36" force main on April 9, 2024, a valve utilized to divert sewage flow to Palm Beach County was found to be faulty. The valve allows the Village to bypass its interconnect with the City of Lake Worth Beach and immediately divert flow to Palm Beach County. Following the completion of the force main repair by Lake Worth Beach, the Village discovered that it could not redirect flow back through the City of Lake Worth Beach and would need the services of a contractor to replace the 18" force main valve. Hinterland Group, Inc. was selected by Utilities to fix the force main due to their immediate availability and experience with the Village, as well as their willingness to allow the Village to utilize the pricing of their emergency repair contract with Lake Worth Beach. The cost of repairs, maintenance of traffic, and site restoration totals \$154,225.96, which the Village Manager approved as an Emergency Purchase.

As per the Village's Purchasing Code, the item is now being presented to the Council for approval, as it exceeded the \$35,000 threshold.

FISCAL IMPACT:

Funds for this emergency repair are available within the FY 2024 Budget – Water and Sewer Fund. A budget amendment or internal budget transfer will be requested at a later date if needed.

ATTACHMENTS:

1. Hinterland Group, Inc. - Proposal



Hinterland Group, Inc.
2051 W Blue Heron Blvd
Riviera Beach, FL 33404

(561) 640-3503 - Phone

FAX - 561-640-3504

ALL PO's/Contractual Issuances are to be emailed to: info@hinterlandgroup.com

Proposal # 24-0071-02

ADDRESS

Village of Palm Springs
Lazaro Farrey
lfarrey@vpsfl.org

DATE: 9/4/2024

JOB NAME: Florida Mango 18" Valve Replacement

ACTIVITY	QUANTITY	UNIT	RATE	AMOUNT
GC-4 Non-Emergency Mobilization/Demobilization	1	LS	\$1,238.40	\$1,238.40
GC-9 - MOT City Arterial Roadway	17	EA	\$1,486.08	\$25,263.36
GC-12 - Density Tests	1	AL	\$1,000.00	\$1,000.00
GC-13 - Proctor Tests	1	AL	\$150.00	\$150.00
F-14 - Furnish and Install 18" DIP Sewer Main	20	LF	\$204.34	\$4,086.80
F-82 - 20" Plug Valve	1	EA	\$18,576.00	\$18,576.00
F-127 - 18" Line Stop	1	EA	\$13,622.40	\$13,622.40
F-141 - Sanitary Crew	80	HR	\$650.16	\$52,012.80
R-11 - F&I Bahia Sod	1000	SF	\$2.48	\$2,480.00
R-17 - Removal and Disposal of Existing Asphalt	40	SY	\$3.72	\$148.80
R-18 - Mill Existing Pavement	300	SY	\$37.15	\$11,145.00
R-19 - Furnish and Install Asphalt Overlay	300	SY	\$30.96	\$9,288.00
R-20 - Furnish and Install Asphalt First Course	40	SY	\$24.77	\$990.80
R-21 - Furnish and Install Asphalt Surface Course	40	SY	\$30.96	\$1,238.40
R-28 - 8" Limerock Base	40	SY	\$29.72	\$1,188.80
R-29 - 12" Compacted Subgrade	40	SY	\$9.91	\$396.40
WP-1 - Well point System	5	DAY	\$1,800.00	\$9,000.00
Striping	1	LS	\$2,400.00	\$2,400.00

*** Proposal is based on pricing from the City of Lake Worth Beach Contract #20-106 - Emergency Utility Repairs for Water, Wastewater and Stormwater***

TOTAL

\$154,225.96

Notes:

1. Includes removal and replacement of 1 - 18" Valve along Florida Mango
2. Proposal includes road closure for duration of work
3. No permits, bonds, surveying or as-builts included
4. Mill and Pave limits estimated at 50' each way

ALL PO's/Contractual Issuances are to be emailed to: info@hinterlandgroup.com

Accepted By: _____

Accepted Date: _____



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Administration

ITEM #10: Helix Urgent Care 21st Anniversary Proclamation

FISCAL IMPACT:

ATTACHMENTS:

1. Helix Urgent Care - Proclamation 2024

Office of the Mayor

Village of Palm Springs, Florida

Proclamation

Whereas, Helix Urgent Care, located at 2720 10th Avenue North in the heart of Palm Springs, has been a cornerstone of our community for 21 years, evolving from a small clinic into a thriving business with six state-of-the-art medical facilities; and

Whereas, Helix Urgent Care has consistently provided quick, reliable medical attention when needed the most, delivering prompt and quality care to the community; and

Whereas, Helix Urgent Care prioritizes accessibility by offering urgent care without the need for appointments and avoiding the high costs associated with emergency room visits. Their services have made a powerful difference in the community, reflecting their impactful role in enhancing public health and community well-being; and

Whereas, during the COVID-19 pandemic, Helix Urgent Care demonstrated extraordinary dedication by providing essential testing, treating patients with COVID-19, and extending their operational hours to support the health and safety of our community; and

Whereas, the 21st anniversary of Helix Urgent Care represents a significant milestone, reflecting their long-standing commitment to exceptional service and resilience in challenging times; and

Whereas, it is fitting and appropriate to recognize Helix Urgent Care for their unwavering support and vital contributions to the well-being of the Palm Springs community.

Now, Therefore, I, Bev Smith, Mayor of the Village of Palm Springs, Florida, on behalf of Council and citizens of Palm Springs, do hereby proclaim September 26th as:

Helix Urgent Care Day

*In witness whereof I have hereunto set my hand
and caused the seal of this city to be affixed*

Mayor

Date

September 26, 2024





Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Finance

ITEM #11: *(Second Reading/Final Budget Adoption)* Ordinance No. 2024-07 - Establish fiscal year (FY 2024 - 2025) Millage Rates - Operating & Debt Service

SUMMARY: The Village Council is requested to establish the final operating and debt service millage (property tax) rates for the Village of Palm Springs for the upcoming Fiscal Year (FY 24-25) beginning October 1, 2024, and ending September 30, 2025. Additionally, the Council is requested to consider certifying the Village's taxable value to the PBC Property Appraiser as well as other related financial information:

The Village received Form DR-420 - Certification of Taxable Value and Form DR-420 Debt - Certification of Voted Debt Millage from the PBC Property Appraiser's Office. These forms certify the Village's taxable values for the upcoming fiscal year (FY 24/25) as well as other related financial information:

- The gross taxable value for all properties within the Village for the fiscal year (FY 24/25) is \$2,071,709,568, an increase of \$171,897,832 over the fiscal year (FY 23/24).
- The rolled-back rate is calculated at 3.5396 per 1,000 taxable value. The Village's fiscal year (FY 24/25) operating millage for the General Fund is \$3.50 per \$1,000 of the taxable value or a decrease of 1.12% below the rolled-back rate (At 100% collection, the expected operating millage is expected to generate \$7,250,983 in ad-valorem tax revenue; however, the Village budgets at a 96% collection ratio; thus, the proposed budgeted revenue is expected to be \$6,960,944).
- The total taxable value within the Village to calculate the debt service millage rate is \$2,076,021,875; thus, the proposed millage rate required to pay the Village's general obligation debt for fiscal year (FY 24/25) is \$0.2121 per \$1,000 of taxable value. That is a decrease of 0.0198 from fiscal year (FY 23/24).
- The combined millage rates for fiscal year (FY 24/25) (3.5000 operating + 0.2121 debt = 3.7121 total mills) is .0198 mills lower than the combined approved millage rates for fiscal year (FY 23/24) (3.5000 operating + 0.2319 debt = 3.7319 total mills).
- The gross taxable increment value (TIF) for the Palm Springs Community Redevelopment Agency (CRA) for fiscal year (FY 24/25) is \$166,959,558. The Palm Springs CRA will receive TIF funding from the Village of Palm Springs and Palm Beach County at the Village's approved millage rate - a proposed \$3.50 per \$1,000 taxable value. At 100% collection, the total increment/revenue expected to generate is \$584,358; however, the Village budgets at a 95% collection ratio; thus,
- The proposed budgeted increment/revenue expected is \$555,141). This is the fifth year the Village has had the Palm Springs CRA.

Ordinance No. 2024–07 establishes the millage rates for the fiscal year (FY 24/25). The proposed fiscal year (FY 24/25) millage rate ordinance was approved on the first reading on September 12, 2024. The proposed fiscal year (FY 24/25) millage rate ordinance is presented to the Village Council for consideration on the 2nd and final reading.

Note: Ordinance No. 2024-07 was presented to the Council for the First Reading on September 12, 2024. It was publicly noticed as required by State Statutes. The staff will submit the required Form DR-420 - Certification of Taxable Value and the Form DR- 420Debt - Certification of Voted Debt Millage to the PBC Property Appraiser, PBC Tax Collector, and the State of Florida.

FISCAL IMPACT:

Establishes the final operating millage rate, debt service millage rate and millage rate for the Palm Springs CRA for the proposed budget for the fiscal year (FY 24/25.)

ATTACHMENTS:

1. Ordinance No. 2024-07 - Establish Millage Rate FY 24-25
2. DR420TIF - 2024 - July 12, 2024 - CRA FY25
3. DR420Debt - 2024 - July 12, 2024
4. DR420 - 2024 - July 12, 2024
5. DR420MMP - 2024 - July 15, 2024

ORDINANCE NO. 2024-07

AN ORDINANCE OF THE VILLAGE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, ADOPTING THE FINAL LEVY OF AD VALOREM TAXES IN AND FOR THE VILLAGE OF PALM SPRINGS, FLORIDA FOR FY 24/25; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Village Council of the Village of Palm Springs, Florida, has held two (2) public hearings as required by section 200.065, Florida Statutes, for the adoption of the Fiscal Year 24/25 (commencing October 1, 2024 and ending September 30, 2025) final millage rates; and

WHEREAS, the real property tax roll for the current calendar year has been certified by the Palm Beach County Property Appraiser for nonexempt valuation of \$1,989,329,411 and the tangible personal property for nonexempt valuation of \$86,692,464, for a total gross taxable value for operating purposes of \$2,076,021,875; and,

WHEREAS, the Village Council of the Village of Palm Springs, Florida, finds adopting the final millage rates as set forth herein serves a valid public purpose.

NOW THEREFORE BE IT ORDAINED BY THE VILLAGE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, AS FOLLOWS:

Section 1. The FY 24/25 operating millage rate for the Village of Palm Springs is hereby levied in the amount of \$3.5000 mills which is a 1.12% decrease over the rolled-back rate of \$3.5396. The general obligation debt service millage rate is hereby levied in the amount of \$0.2121 mills, for a total of \$3.7121 mills of nonexempt valuation of real and personal property within the Village.

Section 2. Repeal of Conflicting Ordinances. All ordinances, resolutions or parts of ordinances and resolutions in conflict herewith are hereby repealed to the extent of such conflict.

Section 3. Severability. If any word, clause, sentence, paragraph, section, or part thereof contained in this Ordinance is declared to be unconstitutional, unenforceable, void, or inoperative by a court of competent jurisdiction, such declaration

shall not affect the validity of the remainder of this Ordinance.

Section 4. Effective Date. This Ordinance shall become effective immediately upon adoption.

Council Member _____ offered the foregoing Ordinance and moved for adoption. The motion was seconded by Council Member _____, and upon being put to a vote, the vote was as follows:

	<u>Aye</u>	<u>Nay</u>	<u>Absent</u>
BEV SMITH, MAYOR	☐	☐	☐
PATTI WALLER, VICE MAYOR	☐	☐	☐
KIM SCHMITZ, MAYOR PRO TEM	☐	☐	☐
JONI BRINKMAN, COUNCIL MEMBER	☐	☐	☐
GARY READY, COUNCIL MEMBER	☐	☐	☐

The Mayor thereupon declared this Ordinance approved and adopted by the Village Council for the Village of Palm Springs, Florida, on second reading, on this _____ day of _____ 2024

VILLAGE OF PALM SPRINGS, FLORIDA

BY: _____
BEV SMITH, MAYOR

First Reading: _____

Second Reading: _____

ATTEST:

BY: _____

KIMBERLY M. WYNN, VILLAGE CLERK

REVIEWED FOR LEGAL FORM AND SUFFICIENCY

BY: _____

CHRISTY GODDEAU, VILLAGE ATTORNEY



Reset Form

Print Form

DR-420TIF

R. 6/10

Rule 12D-16.002

Florida Administrative Code

Effective 11/12

TAX INCREMENT ADJUSTMENT WORKSHEET

Year :	2024	County :	Palm Beach
Principal Authority :	Village of Palm Springs	Taxing Authority :	Village of Palm Springs - Operating
Community Redevelopment Area :	Village of Palm Springs CRA	Base Year :	2019

SECTION I : COMPLETED BY PROPERTY APPRAISER

1.	Current year taxable value in the tax increment area	\$	456,113,214	(1)
2.	Base year taxable value in the tax increment area	\$	289,153,656	(2)
3.	Current year tax increment value <i>(Line 1 minus Line 2)</i>	\$	166,959,558	(3)
4.	Prior year Final taxable value in the tax increment area	\$	413,149,375	(4)
5.	Prior year tax increment value <i>(Line 4 minus Line 2)</i>	\$	123,995,719	(5)

SIGN HERE	Property Appraiser Certification	I certify the taxable values above are correct to the best of my knowledge.	
	Signature of Property Appraiser : Electronically Certified by Property Appraiser	Date : 6/26/2024 9:17:01 AM	

SECTION II: COMPLETED BY TAXING AUTHORITY Complete EITHER line 6 or line 7 as applicable. Do NOT complete both.

6. If the amount to be paid to the redevelopment trust fund IS BASED on a specific proportion of the tax increment value:				
6a.	Enter the proportion on which the payment is based.	100.0000	%	(6a)
6b.	Dedicated increment value <i>(Line 3 multiplied by the percentage on Line 6a)</i> <i>If value is zero or less than zero, then enter zero on Line 6b</i>	\$	166,959,558	(6b)
6c.	Amount of payment to redevelopment trust fund in prior year	\$	0	(6c)
7. If the amount to be paid to the redevelopment trust fund IS NOT BASED on a specific proportion of the tax increment value:				
7a.	Amount of payment to redevelopment trust fund in prior year	\$		(7a)
7b.	Prior year operating millage levy from Form DR-420, Line 10		per \$1,000	(7b)
7c.	Taxes levied on prior year tax increment value <i>(Line 5 multiplied by Line 7b, divided by 1,000)</i>	\$		(7c)
7d.	Prior year payment as proportion of taxes levied on increment value <i>(Line 7a divided by Line 7c, multiplied by 100)</i>		%	(7d)
7e.	Dedicated increment value <i>(Line 3 multiplied by the percentage on Line 7d)</i> <i>If value is zero or less than zero, then enter zero on Line 7e</i>	\$		(7e)

S I G N H E R E	Taxing Authority Certification	I certify the calculations, millages and rates are correct to the best of my knowledge.		
	Signature of Chief Administrative Officer :		Date :	
	Title :		Contact Name and Contact Title :	
	Mailing Address :		Physical Address :	
	City, State, Zip :		Phone Number :	Fax Number :

TAX INCREMENT ADJUSTMENT WORKSHEET INSTRUCTIONS

Property appraisers must complete and sign Section I of this worksheet and provide it with form DR-420, *Certification of Taxable Value*, to all taxing authorities who make payments to a redevelopment trust fund under:

- s. 163.387(2)(a), Florida Statutes, or
- An ordinance, resolution, or agreement to fund a project or to finance essential infrastructure.

“Tax increment value” is the cumulative increase in taxable value from the base year to the current year within the defined geographic area. It is used to determine the payment to a redevelopment trust fund under:

- s. 163.387(1), F.S. or
- An ordinance, resolution, or agreement to fund a project or finance essential infrastructure. In this case, the taxing authority must certify the boundaries and beginning date to the property appraiser.

“Dedicated increment value” is the portion of the tax increment value used to determine the payment to the redevelopment trust fund. (See s. 200.001(8)(h), F.S.) Calculate the dedicated increment value on this form and enter on either Line 6b or Line 7e.

“Specific proportion,” used to determine whether to complete Line 6 or Line 7, refers to the calculation of the tax increment payment. Examples:

- Example 1.
Section 163.387(1), F.S., states the payment made by the taxing authority should equal 95% of the millage levied times the tax increment value. The specific proportion in this case is 95%. The ordinance providing for the payment may set a percentage lower than 95%. In these cases, the lower percentage would be the specific proportion.
- Example 2.
Some required tax increment payments are not directly related to the tax increment value. A constant dollar payment is a payment not based on a specific proportion of the tax increment value. Line 7 converts these payments into a proportion based on the prior year's payment and tax increment value to reach the current year's dedicated increment value.

Section I: Property Appraiser

A. Complete Section I of this form for each county, municipality, independent special district, dependent special district, and MSTU that:

- Has a tax increment value and
- Is not exempted from making payments to a community redevelopment trust fund based on tax increments (s. 163.387(2)(c), F.S.).

If a taxing authority has more than one tax increment value, they must complete a separate form for each tax increment value. Send a copy to each taxing authority with the DR-420 and keep a copy. When the taxing authority returns the completed forms, immediately send the original to:

Florida Department of Revenue
Property Tax Oversight Program - TRIM Section
P. O. Box 3000
Tallahassee, Florida 32315-3000

B. Enter only tax increment values that apply to the value located within the taxing authority indicated.

Section II: Taxing Authority

Complete Section II of the form, keep one copy, and return the original and one copy to your property appraiser with DR-420 within 35 days of certification. Send one copy to your tax collector.

Additional Instructions for Lines 6 and 7

Complete Line 6 if the payment into the redevelopment trust fund is a specific proportion of the tax increment value.

Complete Line 7 if the payment is based on a calculation other than a specific proportion. Do not complete both Lines 6 and 7.



CERTIFICATION OF VOTED DEBT MILLAGE

[Reset Form](#)[Print Form](#)

DR-420DEBT

R. 6/10

Rule 12D-16.002

Florida Administrative Code

Effective 11/12

Year : 2024	County : Palm Beach
Principal Authority : Village of Palm Springs	Taxing Authority : Village of Palm Springs - Voted, Debt
Levy Description : Village of Palm Springs - Voted, Debt	

SECTION I: COMPLETED BY PROPERTY APPRAISER

1.	Current year taxable value of real property for operating purposes	\$	1,989,329,411	(1)
2.	Current year taxable value of personal property for operating purposes	\$	86,692,464	(2)
3.	Current year taxable value of centrally assessed property for operating purposes	\$	0	(3)
4.	Current year gross taxable value for operating purposes (Line 1 plus Line 2 plus Line 3)	\$	2,076,021,875	(4)
SIGN HERE	Property Appraiser Certification		I certify the taxable values above are correct to the best of my knowledge.	
	Signature of Property Appraiser : Electronically Certified by Property Appraiser		Date : 6/26/2024 9:17:01 AM	

SECTION II: COMPLETED BY TAXING AUTHORITY

5.	Current year proposed voted debt millage rate	0.2121	per \$1,000	(5)
6.	Current year proposed millage voted for 2 years or less under s. 9(b) Article VII, State Constitution	0.0000	per \$1,000	(6)
SIGN HERE	Taxing Authority Certification		I certify the proposed millages and rates are correct to the best of my knowledge.	
	Signature of Chief Administrative Officer :		Date :	
	Title :	Contact Name and Contact Title :		
	Mailing Address :	Physical Address :		
	City, State, Zip :	Phone Number :	Fax Number :	

INSTRUCTIONS

Property appraisers must complete and sign Section I of this form with the DR-420, *Certification of Taxable Value*, and DR-420S, *Certification of School Taxable Value*, and provide it to all taxing authorities levying a

- Voted debt service millage levied under Section 12, Article VII of the State Constitution or
- Millage voted for two years or less under s. 9(b), Article VII of the State Constitution

Section I: Property Appraiser

Use a separate DR-420DEBT for each voted debt service millage that's levied by a taxing authority. The property appraiser should check the Yes box on Line 9 of DR-420, *Certification of Taxable Value*, or Line 8 of DR-420S, *Certification of School Taxable Value*. The property appraiser should provide the levy description and complete Section I, Lines 1 through 4 of this form, for each voted debt service millage levied.

Enter only taxable values that apply to the voted debt service millage indicated.

Sign, date, and forward the form to the taxing authority with the DR-420.

Section II: Taxing Authority

Each taxing authority levying a voted debt service millage requiring this form must provide the proposed voted debt millage rate on Line 5.

If a DR-420DEBT wasn't received for any

- Voted debt service millages or
- Millages voted for two years or less

contact the property appraiser as soon as possible and request a DR-420DEBT.

Sign, date, and return the form to your property appraiser with the DR-420 or DR-420S.



Reset Form

Print Form

CERTIFICATION OF TAXABLE VALUEDR-420
R. 5/12
Rule 12D-16.002
Florida Administrative Code
Effective 11/12

Year : 2024	County : Palm Beach
Principal Authority : Village of Palm Springs	Taxing Authority : Village of Palm Springs - Operating

SECTION I : COMPLETED BY PROPERTY APPRAISER

1.	Current year taxable value of real property for operating purposes	\$	1,985,017,104	(1)
2.	Current year taxable value of personal property for operating purposes	\$	86,692,464	(2)
3.	Current year taxable value of centrally assessed property for operating purposes	\$	0	(3)
4.	Current year gross taxable value for operating purposes <i>(Line 1 plus Line 2 plus Line 3)</i>	\$	2,071,709,568	(4)
5.	Current year net new taxable value (Add new construction, additions, rehabilitative improvements increasing assessed value by at least 100%, annexations, and tangible personal property value over 115% of the previous year's value. Subtract deletions.)	\$	26,185,112	(5)
6.	Current year adjusted taxable value <i>(Line 4 minus Line 5)</i>	\$	2,045,524,456	(6)
7.	Prior year FINAL gross taxable value from prior year applicable Form DR-403 series	\$	1,899,811,716	(7)
8.	Does the taxing authority include tax increment financing areas? If yes, enter number of worksheets (DR-420TIF) attached. If none, enter 0	☒ YES ☐ NO	Number 1	(8)
9.	Does the taxing authority levy a voted debt service millage or a millage voted for 2 years or less under s. 9(b), Article VII, State Constitution? If yes, enter the number of DR-420DEBT, <i>Certification of Voted Debt Millage</i> forms attached. If none, enter 0	☒ YES ☐ NO	Number 1	(9)
SIGN HERE	Property Appraiser Certification	I certify the taxable values above are correct to the best of my knowledge.		
	Signature of Property Appraiser: Electronically Certified by Property Appraiser	Date : 6/26/2024 9:17:01 AM		

SECTION II : COMPLETED BY TAXING AUTHORITY

If this portion of the form is not completed in FULL your taxing authority will be denied TRIM certification and possibly lose its millage levy privilege for the tax year. If any line is not applicable, enter -0-.				
10.	Prior year operating millage levy <i>(If prior year millage was adjusted then use adjusted millage from Form DR-422)</i>	3.5000	per \$1,000	(10)
11.	Prior year ad valorem proceeds <i>(Line 7 multiplied by Line 10, divided by 1,000)</i>	\$	6,649,341	(11)
12.	Amount, if any, paid or applied in prior year as a consequence of an obligation measured by a dedicated increment value <i>(Sum of either Lines 6c or Line 7a for all DR-420TIF forms)</i>	\$	0	(12)
13.	Adjusted prior year ad valorem proceeds <i>(Line 11 minus Line 12)</i>	\$	6,649,341	(13)
14.	Dedicated increment value, if any <i>(Sum of either Line 6b or Line 7e for all DR-420TIF forms)</i>	\$	166,959,558	(14)
15.	Adjusted current year taxable value <i>(Line 6 minus Line 14)</i>	\$	1,878,564,898	(15)
16.	Current year rolled-back rate <i>(Line 13 divided by Line 15, multiplied by 1,000)</i>	3.5396	per \$1000	(16)
17.	Current year proposed operating millage rate	3.5000	per \$1000	(17)
18.	Total taxes to be levied at proposed millage rate <i>(Line 17 multiplied by Line 4, divided by 1,000)</i>	\$	7,250,983	(18)

Continued on page 2

19.	TYPE of principal authority (check one)	☐ County	☐ Independent Special District	(19)
		☒ Municipality	☐ Water Management District	
20.	Applicable taxing authority (check one)	☒ Principal Authority	☐ Dependent Special District	(20)
		☐ MSTU	☐ Water Management District Basin	
21.	Is millage levied in more than one county? (check one)	☐ Yes	☒ No	(21)
DEPENDENT SPECIAL DISTRICTS AND MSTUs			STOP HERE - SIGN AND SUBMIT	
22.	Enter the total adjusted prior year ad valorem proceeds of the principal authority, all dependent special districts, and MSTUs levying a millage. <i>(The sum of Line 13 from all DR-420 forms)</i>		\$ 6,649,341	(22)
23.	Current year aggregate rolled-back rate <i>(Line 22 divided by Line 15, multiplied by 1,000)</i>		3.5396 per \$1,000	(23)
24.	Current year aggregate rolled-back taxes <i>(Line 4 multiplied by Line 23, divided by 1,000)</i>		\$ 7,333,023	(24)
25.	Enter total of all operating ad valorem taxes proposed to be levied by the principal taxing authority, all dependent districts, and MSTUs, if any. <i>(The sum of Line 18 from all DR-420 forms)</i>		\$ 7,250,983	(25)
26.	Current year proposed aggregate millage rate <i>(Line 25 divided by Line 4, multiplied by 1,000)</i>		3.5000 per \$1,000	(26)
27.	Current year proposed rate as a percent change of rolled-back rate <i>(Line 26 divided by Line 23, minus 1, multiplied by 100)</i>		-1.1200 %	(27)
First public budget hearing		Date :	Time :	Place :
SIGN HERE	Taxing Authority Certification		I certify the millages and rates are correct to the best of my knowledge. The millages comply with the provisions of s. 200.065 and the provisions of either s. 200.071 or s. 200.081, F.S.	
	Signature of Chief Administrative Officer :			Date :
	Title :		Contact Name and Contact Title :	
	Mailing Address :		Physical Address :	
	City, State, Zip :		Phone Number :	Fax Number :

CERTIFICATION OF TAXABLE VALUE INSTRUCTIONS

“Principal Authority” is a county, municipality, or independent special district (including water management districts).

“Taxing Authority” is the entity levying the millage. This includes the principal authority, any special district dependent to the principal authority, any county municipal service taxing unit (MSTU), and water management district basins.

Each taxing authority must submit to their property appraiser a DR-420 and the following forms, as applicable:

- DR-420TIF, Tax Increment Adjustment Worksheet
- DR-420DEBT, Certification of Voted Debt Millage
- DR-420MM-P, Maximum Millage Levy Calculation - Preliminary Disclosure

Section I: Property Appraiser

Use this DR-420 form for all taxing authorities except school districts. Complete Section I, Lines 1 through 9, for each county, municipality, independent special district, dependent special district, MSTU, and multicounty taxing authority. Enter only taxable values that apply to the taxing authority indicated. Use a separate form for the principal authority and each dependent district, MSTU and water management district basin.

Line 8

Complete a DR-420TIF for each taxing authority making payments to a redevelopment trust fund under Section 163.387 (2)(a), Florida Statutes or by an ordinance, resolution or agreement to fund a project or to finance essential infrastructure.

Check “Yes” if the taxing authority makes payments to a redevelopment trust fund. Enter the number of DR-420TIF forms attached for the taxing authority on Line 8. Enter 0 if none.

Line 9

Complete a DR-420DEBT for each taxing authority levying either a voted debt service millage (s.12, Article VII, State Constitution) or a levy voted for two years or less (s. 9(b), Article VII, State Constitution).

Check “Yes” if the taxing authority levies either a voted debt service millage or a levy voted for 2 years or less (s. 9(b), Article VII, State Constitution). These levies do not include levies approved by a voter referendum not required by the State Constitution. Complete and attach DR-420DEBT. Do not complete a separate DR-420 for these levies.

Send a copy to each taxing authority and keep a copy. When the taxing authority returns the DR-420 and the accompanying forms, immediately send the original to:

Florida Department of Revenue
Property Tax Oversight - TRIM Section
P. O. Box 3000
Tallahassee, Florida 32315-3000

Section II: Taxing Authority

Complete Section II. Keep one copy, return the original and one copy to your property appraiser with the applicable DR-420TIF, DR-420DEBT, and DR-420MM-P within 35 days of certification. Send one copy to the tax collector. “Dependent special district” (ss. 200.001(8)(d) and 189.403(2), F.S.) means a special district that meets at least one of the following criteria:

- The membership of its governing body is identical to that of the governing body of a single county or a single municipality.
- All members of its governing body are appointed by the governing body of a single county or a single municipality.
- During their unexpired terms, members of the special district's governing body are subject to removal at will by the governing body of a single county or a single municipality.
- The district has a budget that requires approval through an affirmative vote or can be vetoed by the governing body of a single county or a single municipality.

“Independent special district” (ss. 200.001(8)(e) and 189.403 (3), F.S.) means a special district that is not a dependent special district as defined above. A district that includes more than one county is an independent special district unless the district lies wholly within the boundaries of a single municipality.

“Non-voted millage” is any millage not defined as a “voted millage” in s. 200.001(8)(f), F.S.

Lines 12 and 14

Adjust the calculation of the rolled-back rate for tax increment values and payment amounts. See the instructions for DR-420TIF. On Lines 12 and 14, carry forward values from the DR-420TIF forms.

Line 24

Include only those levies derived from millage rates.



Reset Form

Print Form

MAXIMUM MILLAGE LEVY CALCULATION PRELIMINARY DISCLOSURE

For municipal governments, counties, and special districts

DR-420MM-P
R. 5/12
Rule 12D-16.002
Florida Administrative Code
Effective 11/12

Year: 2024		County: Palm Beach	
Principal Authority: Village of Palm Springs		Taxing Authority: Village of Palm Springs - Operating	
1.	Is your taxing authority a municipality or independent special district that has levied ad valorem taxes for less than 5 years?	☐ Yes	☒ No (1)
IF YES,  STOP HERE. SIGN AND SUBMIT. You are not subject to a millage limitation.			
2.	Current year rolled-back rate from Current Year Form DR-420, Line 16	3.5396	per \$1,000 (2)
3.	Prior year maximum millage rate with a majority vote from 2023 Form DR-420MM, Line 13	4.9596	per \$1,000 (3)
4.	Prior year operating millage rate from Current Year Form DR-420, Line 10	3.5000	per \$1,000 (4)
If Line 4 is equal to or greater than Line 3, skip to Line 11. If less, continue to Line 5.			
Adjust rolled-back rate based on prior year majority-vote maximum millage rate			
5.	Prior year final gross taxable value from Current Year Form DR-420, Line 7	\$ 1,899,811,716	(5)
6.	Prior year maximum ad valorem proceeds with majority vote (Line 3 multiplied by Line 5 divided by 1,000)	\$ 9,422,306	(6)
7.	Amount, if any, paid or applied in prior year as a consequence of an obligation measured by a dedicated increment value from Current Year Form DR-420 Line 12	\$ 0	(7)
8.	Adjusted prior year ad valorem proceeds with majority vote (Line 6 minus Line 7)	\$ 9,422,306	(8)
9.	Adjusted current year taxable value from Current Year form DR-420 Line 15	\$ 1,878,564,898	(9)
10.	Adjusted current year rolled-back rate (Line 8 divided by Line 9, multiplied by 1,000)	5.0157	per \$1,000 (10)
Calculate maximum millage levy			
11.	Rolled-back rate to be used for maximum millage levy calculation (Enter Line 10 if adjusted or else enter Line 2)	5.0157	per \$1,000 (11)
12.	Adjustment for change in per capita Florida personal income (See Line 12 Instructions)	1.0569	(12)
13.	Majority vote maximum millage rate allowed (Line 11 multiplied by Line 12)	5.3011	per \$1,000 (13)
14.	Two-thirds vote maximum millage rate allowed (Multiply Line 13 by 1.10)	5.8312	per \$1,000 (14)
15.	Current year proposed millage rate	3.5000	per \$1,000 (15)
16.	Minimum vote required to levy proposed millage: (Check one)		
☒	a. Majority vote of the governing body: Check here if Line 15 is less than or equal to Line 13. The maximum millage rate is equal to the majority vote maximum rate. Enter Line 13 on Line 17.		
☐	b. Two-thirds vote of governing body: Check here if Line 15 is less than or equal to Line 14, but greater than Line 13. The maximum millage rate is equal to proposed rate. Enter Line 15 on Line 17.		
☐	c. Unanimous vote of the governing body, or 3/4 vote if nine members or more: Check here if Line 15 is greater than Line 14. The maximum millage rate is equal to the proposed rate. Enter Line 15 on Line 17.		
☐	d. Referendum: The maximum millage rate is equal to the proposed rate. Enter Line 15 on Line 17.		
17.	The selection on Line 16 allows a maximum millage rate of (Enter rate indicated by choice on Line 16)	5.3011	per \$1,000 (17)
18.	Current year gross taxable value from Current Year Form DR-420, Line 4	\$ 2,071,709,568	(18)

Continued on page 2

Taxing Authority :		DR-420MM-P R. 5/12 Page 2	
19.	Current year proposed taxes <i>(Line 15 multiplied by Line 18, divided by 1,000)</i>	\$ 7,250,983	(19)
20.	Total taxes levied at the maximum millage rate <i>(Line 17 multiplied by Line 18, divided by 1,000)</i>	\$ 10,982,340	(20)
DEPENDENT SPECIAL DISTRICTS AND MSTUs			STOP HERE. SIGN AND SUBMIT.
21.	Enter the current year proposed taxes of all dependent special districts & MSTUs levying a millage. <i>(The sum of all Lines 19 from each district's Form DR-420MM-P)</i>	\$ 0	(21)
22.	Total current year proposed taxes <i>(Line 19 plus Line 21)</i>	\$ 7,250,983	(22)
Total Maximum Taxes			
23.	Enter the taxes at the maximum millage of all dependent special districts & MSTUs levying a millage <i>(The sum of all Lines 20 from each district's Form DR-420MM-P)</i>	\$ 0	(23)
24.	Total taxes at maximum millage rate <i>(Line 20 plus Line 23)</i>	\$ 10,982,340	(24)
Total Maximum Versus Total Taxes Levied			
25.	Are total current year proposed taxes on Line 22 equal to or less than total taxes at the maximum millage rate on Line 24? (Check one)	☒ YES ☐ NO	(25)
SIGN HERE	Taxing Authority Certification		I certify the millages and rates are correct to the best of my knowledge. The millages comply with the provisions of s. 200.065 and the provisions of either s. 200.071 or s. 200.081, F.S.
	Signature of Chief Administrative Officer :		Date :
	Title :	Contact Name and Contact Title :	
	Mailing Address :	Physical Address :	
	City, State, Zip :	Phone Number :	Fax Number :

Complete and submit this form DR-420MM-P, Maximum Millage Levy Calculation-Preliminary Disclosure, to your property appraiser with the form DR-420, Certification of Taxable Value.

**MAXIMUM MILLAGE LEVY CALCULATION
PRELIMINARY DISCLOSURE
INSTRUCTIONS**

DR-420MM-P
R. 5/12
Page 3

General Instructions

Each of the following taxing authorities must complete a DR-420MM-P.

- County
- Municipality
- Special district dependent to a county or municipality
- County MSTU
- Independent special district, including water management districts
- Water management district basin

Voting requirements for millages adopted by a two-thirds or a unanimous vote are based on the full membership of the governing body, not on the number of members present at the time of the vote.

This form calculates the maximum tax levy for 2024 allowed under s. 200.065(5), F.S. Counties and municipalities, including dependent special districts and MSTUs, which adopt a tax levy at the final hearing higher than allowed under s. 200.065, F.S., may be subject to the loss of their half-cent sales tax distribution.

DR-420MM-P shows the preliminary maximum millages and taxes levied based on your proposed adoption vote. Each taxing authority must complete, sign, and submit this form to their property appraiser with their completed DR-420, Certification of Taxable Value.

The vote at the final hearing and the resulting maximum may change. After the final hearing, each taxing authority will file a final Form DR-420MM, Maximum Millage Levy Calculation Final Disclosure, with Form DR-487, Certification of Compliance, with the Department of Revenue.

Specific tax year references in this form are updated each year by the Department.

Line Instructions

Lines 5-10

Only taxing authorities that levied a 2024 millage rate less than their maximum majority vote rate must complete these lines. The adjusted rolled-back rate on Line 10 is the rate that would have been levied if the maximum vote rate for 2024 had been adopted. If these lines are completed, enter the adjusted rate on Line 11.

Line 12

This line is entered by the Department of Revenue. The same adjustment factor is used statewide by all taxing authorities. It is based on the change in per capita Florida personal income (s. 200.001(8)(i), F.S.), which Florida Law requires the Office of Economic and Demographic Research to report each year.

Lines 13 and 14

Millage rates are the maximum that could be levied with a majority or two-thirds vote of the full membership of the governing body. With a unanimous vote of the full membership (three-fourths vote of the full membership if the governing body has nine or more members) or a referendum, the maximum millage rate that can be levied is the taxing authority's statutory or constitutional cap.

Line 16

Check the box for the minimum vote necessary at the final hearing to levy your adopted millage rate.

Line 17

Enter the millage rate indicated by the box checked in Line 16. If the proposed millage rate is equal to or less than the majority vote maximum millage rate, enter the majority vote maximum. If a two-thirds vote, a unanimous vote, or a referendum is required, enter the proposed millage rate. For a millage requiring more than a majority vote, the proposed millage rate must be entered on Line 17, rather than the maximum rate, so that the comparisons on Lines 21 through 25 are accurate.



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Finance

ITEM #12: Ordinance No. 2024-08 Adopt FY 2024-2025 Budget

SUMMARY: Under the Village Charter and state law, the proposed ordinance establishes a balanced annual budget for the Village of Palm Springs for \$102,036,208 for the Fiscal Year (FY) beginning October 1, 2024, and ending September 30, 2025. The proposed budget includes the following funds:

General Fund	\$48,054,157
American Rescue Plan Fund	\$6,435,383
Palm Springs CRA	\$3,337,381
Debt Service Fund	\$422,618
Water and Sewer Enterprise Fund	\$38,324,227
Stormwater Enterprise Fund	\$5,462,442
Total	\$102,036,208

The Village Council held a budget workshop on July 25, 2024, to discuss the proposed budget and review staff recommendations. The proposed ordinance establishes the budget for the upcoming fiscal year.

Attached to the proposed ordinance is a summary of the proposed revenues by source and proposed expenditures by function. The budget summary was advertised in the Palm Beach Post on September 22, 2024, and posted on the Village's website – www.vpsfl.org -- under state law. The complete budget is available in the Office of the Village Clerk for review.

FISCAL IMPACT:

The proposed ordinance establishes the Operating Budget for the General Fund, American Rescue Plan Fund, Palm Springs CRA, Debt Service Fund, Water and Sewer Enterprise Funds and the Stormwater Enterprise Fund for the fiscal year beginning October 1, 2024, and ending September 30, 2025.

ATTACHMENTS:

1. Ordinance No. 2024-08 FY25 Annual Fund Budget
2. Budget Summary AD FY25 - First Reading

ORDINANCE NO. 2024-08

AN ORDINANCE OF THE VILLAGE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, ADOPTING AN ANNUAL BUDGET FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2024, AND ENDING SEPTEMBER 30, 2025; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, section 166.241(2), Florida Statutes, requires a municipality to adopt a budget each fiscal year that does not exceed the amount to be received from taxation and other revenue sources; and

WHEREAS, municipalities are required to adopt their budget by ordinance or resolution as specified in the municipality's charter; and

WHEREAS, section 200.065, Florida Statutes, requires two public hearings on the adoptions of municipal budget and all of the TRIM compliance measures have been achieved, including all advertising requirements; and,

WHEREAS, the Village Council of the Village of Palm Springs has determined that all requirements as set forth above have been met for the adoption of the Village Fiscal Year 2024-2025 budget and the adoption of this Ordinance serves a valid public purpose.

NOW THEREFORE BE IT ORDAINED BY THE VILLAGE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, AS FOLLOWS:

Section 1. The foregoing recitals are incorporated into this Ordinance as true and correct findings of the Village Council.

Section 2. Budget Adopted. The appropriations for the fiscal year beginning October 1, 2024, in the amount of \$102,036,208, as further described in Exhibit "A"

attached hereto and incorporated herein by reference, are hereby adopted as the Village's Fiscal Year 2024-2025 budget.

Section 3. Repeal of Conflicting Ordinances. All ordinances, resolutions or parts of ordinances and resolutions in conflict herewith are hereby repealed.

Section 4. Severability. If any word, clause, sentence, paragraph, section, or part thereof contained in this Ordinance is declared to be unconstitutional, unenforceable, void or inoperative by a court of competent jurisdiction, such declaration shall not affect the validity of the remainder of this Ordinance.

Section 4. Effective Date. This Ordinance shall become effective immediately.

Council Member _____ offered the foregoing Ordinance and moved for adoption. The motion was seconded by Council Member _____, and upon being put to a vote, the vote was as follows:

	<u>Aye</u>	<u>Nay</u>	<u>Absent</u>
BEV SMITH, MAYOR	☐	☐	☐
PATTI WALER, VICE MAYOR	☐	☐	☐
KIM SCHMITZ, MAYOR PRO TEM	☐	☐	☐
JONI BRINKMAN, COUNCIL MEMBER	☐	☐	☐
GARY READY, COUNCIL MEMBER	☐	☐	☐

The Mayor thereupon declared this Ordinance approved and adopted by the Village Council of the Village of Palm Springs, Florida, on second reading, on this _____ day of _____, 2024.

VILLAGE OF PALM SPRINGS, FLORIDA

BY: _____
BEV SMITH, MAYOR

First Reading: _____

Ord No. 2024-08 – FY 2025 Annual Fund Budget

Second Reading: _____

ATTEST:

BY: _____

KIMBERLY M. WYNN, VILLAGE CLERK

REVIEWED FOR LEGAL FORM AND SUFFICIENCY

BY: _____

CHRISTY GODDEAU, VILLAGE ATTORNEY

**PROPOSED BUDGET
VILLAGE OF PALM SPRINGS - FISCAL YEAR 2024 - 2025**

**THE PROPOSED OPERATING BUDGET EXPENDITURES OF THE VILLAGE OF PALM SPRINGS
ARE 13.5% MORE THAN LAST YEAR'S TOTAL OPERATING EXPENDITURES.**

ESTIMATED REVENUES:	MILLAGE PER \$1,000	GENERAL FUND	AMERICAN RESCUE PLAN FUND	PALM SPRINGS CRA	DEBT SERVICE FUND	WATER & SEWER ENTERPRISE FUND	STORMWATER UTILITY ENTERPRISE FUND	TOTAL VILLAGE BUDGET
Taxes:								
Ad Valorem Taxes	3.5000	\$6,969,944		\$555,141				\$7,525,085
Voted Debt Service Ad Valorem Tax	0.2121				\$422,618			\$422,618
Sales and Use Taxes		\$3,101,441						\$3,101,441
Utility Service Taxes		\$3,507,467						\$3,507,467
Local Business Taxes		\$400,000						\$400,000
Permits and Fees		\$3,574,118						\$3,574,118
Intergovernmental Revenues		\$4,975,849		\$1,000,000				\$5,975,849
Charges for Services		\$3,424,059				\$24,628,872	\$532,442	\$28,585,373
Fines and Forfeitures		\$296,200				\$567,073		\$863,273
Miscellaneous Revenues		\$1,655,855		\$19,500		\$1,341,000	\$60,000	\$3,076,355
TOTAL SOURCES		\$27,904,933	\$0	\$1,574,641	\$422,618	\$26,536,945	\$592,442	\$57,031,579
Transfers In		\$4,415,608		\$975,411		\$423,937	\$4,870,000	\$10,684,956
Fund Balances/Reserves/Net Assets		\$15,733,616	\$6,435,383	\$787,329		\$11,363,345		\$34,319,673
TOTAL REVENUES, TRANSFERS & BALANCES		\$48,054,157	\$6,435,383	\$3,337,381	\$422,618	\$38,324,227	\$5,462,442	\$102,036,208
EXPENDITURES/EXPENSES:								
Legislative		\$794,390						\$794,390
Executive		\$1,339,978						\$1,339,978
Finance		\$1,053,710						\$1,053,710
Legal		\$225,000						\$225,000
Human Resources		\$652,789						\$652,789
Information Technology		\$1,400,719						\$1,400,719
General Government		\$606,774						\$606,774
Planning, Zoning & Building		\$1,791,392						\$1,791,392
Law Enforcement		\$27,262,144						\$27,262,144
Sanitation		\$1,759,667						\$1,759,667
Water and Sewer Utility						\$35,418,567		\$35,418,567
Stormwater Utility							\$5,462,442	\$5,462,442
Public Works		\$6,316,986						\$6,316,986
Community Redevelopment Agency				\$3,337,381				\$3,337,381
Economic Development								\$0
Library		\$1,098,154						\$1,098,154
Parks and Recreation		\$1,946,363						\$1,946,363
Special Events		\$250,950						\$250,950
Debt Service					\$422,618	\$211,228		\$633,846
TOTAL EXPENDITURES/EXPENSES		\$46,499,016	\$0	\$3,337,381	\$422,618	\$35,629,795	\$5,462,442	\$91,351,252
Transfers Out		\$1,555,141	\$6,435,383			\$2,694,432		\$10,684,956
Fund Balances/Reserves/Net Assets								\$0
TOTAL APPROPRIATED EXPENDITURES, TRANSFERS, RESERVES & BALANCES		\$48,054,157	\$6,435,383	\$3,337,381	\$422,618	\$38,324,227	\$5,462,442	\$102,036,208

The tentative, adopted and/or final budgets are on file in the office of the above mentioned taxing authority as a public record.



Village of Palm Springs

Executive Brief

AGENDA DATE: September 26, 2024

DEPARTMENT: Planning, Zoning & Building

ITEM #13: Resolution No. 2024-44 - Palm Beach Habilitation Center - 4522 South Congress Avenue - Site Plan Amendment (SPR24-05) and Special Exception Use (PSSE24-02) to allow the creation of an Arts and Cultural Center

SUMMARY: The Palm Beach Habilitation Center is a facility that provides services to adults with developmental, emotional, and physical disabilities to achieve their most significant level of independence. It serves women and men in job training, employment opportunities, recreational experiences, and retirement services.

The applicant is requesting a site plan amendment (SPR24-05) and a special exception use (PSSE24-02) to allow the renovation of three (3) existing buildings to create an Arts and Cultural Center for its clients. This renovation will require a 345-square-foot addition to the warehouse building and a new 3,000-square-foot storage building within 1.26 acres located on the southeast portion of the Palm Beach Habilitation Center campus. The project constitutes an amendment to the previously approved site plan for 2019, where an 11,775-square-foot building was going into construction for a Cultural Arts facility.

The request includes the renovation of three existing buildings (a warehouse, a workshop building, and a programming building) to be converted into an Arts and Cultural Center for ARC clients. The center will feature a large multipurpose space that can host art shows and workshops, theatrical performances, and other art classes. In addition, buildings will be renovated for a pre-function space and a locker room/restrooms.

Additionally, a new parking area with nine additional parking spaces north of the proposed Arts and Cultural Center is proposed in conjunction with new planting materials including Southern Live Oaks and Christmas Palms along the northern façade of the pre-function space.

Within the existing storage area at the southeast portion of the campus, a new 3,000-square-foot storage building is proposed to house the materials currently being stored within the three buildings being renovated for the Arts and Cultural Center. The existing landscaping around the existing storage area will remain.

The Planning and Zoning Board considered this application during their September 10, 2024, meeting and recommended approval.

Based on surrounding characteristics, staff recommends conditional approval of the proposed Site Plan Amendment and Special Exception Use.

FISCAL IMPACT:

The proposed request does not have any immediate fiscal impact on the Village since the Palm Beach Habilitation Center is tax-exempt; however, the proposed renovations may have a positive effect on neighboring properties.

ATTACHMENTS:

1. Resolution No. 2024-44 Arts and Cultural Center 4522 South Congress Avenue
2. Exhibit A - Staff Report and Conditions of Approval
3. Project Narrative and Justification Statement
4. Site Plan, Landscape Plan, Architectural Plans, Photometric Plan and Letters
5. Color Site Plan and Rendering
6. Aerial and Location Maps

RESOLUTION NO. 2024-44

A RESOLUTION OF THE VILLAGE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA, (APPROVING/DENYING) WITH CONDITIONS, AN APPLICATION SUBMITTED BY PALM BEACH HABILITATION CENTER, INC. (“APPLICANT”), FOR SITE PLAN AMENDMENT (SPR24-05) AND SPECIAL EXCEPTION USE (PSSE24-02) FOR A REDEVELOPMENT PROJECT THAT INCLUDES CREATING AN ARTS AND CULTURAL CENTER, RENOVATING THREE (3) EXISTING BUILDINGS, AND ADDING A 345-SQUARE FOOT ADDITION AND A NEW 3,000-SQUARE FOOT STORAGE BUILDING AT 4522 SOUTH CONGRESS AVENUE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Palm Beach Habilitation Center, Inc., (“Applicant”) is requesting approval of the Site Development Plan (SPR24-05) and Special Exception Use (PSSE24-02) to allow the renovation of the three (3) existing building to create an Arts and Cultural Center at 4522 South Congress Avenue; and

WHEREAS, on July 11, 2019, the Village Council adopted Resolution 2019-19, approving the Cultural Arts Building site plan and Special Exception use to allow a redevelopment project to create an Arts and Cultural Center which includes renovating three (3) existing buildings, a 345-square foot addition and a new 3,000 square feet storage building; and

WHEREAS, the renovation will require a 345-square foot addition and a new 3,000 square feet storage building on the existing institutional public use facility;

WHEREAS, the recommendation of the Planning, Zoning, and Building Department is to approve this application, subject to staff report conditions; and

WHEREAS, the Village Council and Planning & Zoning Board have heard this matter in public session; has considered the presentation and other evidence presented by the Applicant; has received and considered the recommendations of the Village Staff, and has otherwise been fully informed regarding this matter.

NOW THEREFORE, BE IT RESOLVED BY THE VILLAGE COUNCIL OF THE VILLAGE OF PALM SPRINGS, FLORIDA:

Section 1. The Village Council having received and considered the request of Palm Beach Habilitation, the (“Applicant”), for approval with conditions of Site Development Plan (SPR24-05).

Note: The Planning & Zoning Board considered these requests during their September 10, 2024, meeting in light of the applicable legal criteria set forth in Chapter 34 of the Palm Springs Code and the sworn testimony and other evidence presented at public hearing, and the Board recommended approval of the application, finding that good cause for the special exception has been shown and they have been demonstrated to be in harmony with the purpose, objectives, and performance standards of this subdivision based upon the criteria set forth in Palm Springs Code Section 34-824.

_____ Having been otherwise fully apprised of the premises herein, the Village Council hereby adopts the findings of the Board and approves the said application as revised, with the staff report conditions attached hereto as Exhibit “A”, and which is incorporated herein by reference.

OR

_____ Having been otherwise fully apprised of the premises herein, the Village Council hereby rejects the Board findings and denies the application, finding that good cause for the waivers has NOT been shown and they have NOT been demonstrated to be in harmony with the purpose, objectives, and performance standards of this subdivision based upon the criteria set forth in Palm Springs Code Section 34-824, for the following reason(s):

Notwithstanding any exceptions, conditions, or other approvals granted herein, the applicant must conform to all other applicable codes, ordinances, and laws whether stated herein or not.

Section 2. This Resolution shall take effect immediately upon adoption.

Council Member _____ offered the foregoing resolution.
Council Member _____ seconded the motion, and
upon being put to a vote, the vote was as follows:

	<u>Aye</u>	<u>Nay</u>	<u>Absent</u>
BEV SMITH, MAYOR	☐	☐	☐
PATTI WALLER, VICE MAYOR	☐	☐	☐
KIM SCHMITZ, MAYOR PRO TEM	☐	☐	☐
JONI BRINKMAN, COUNCIL MEMBER	☐	☐	☐
GARY READY, COUNCIL MEMBER	☐	☐	☐

The Mayor thereupon declared the Resolution duly passed and adopted
this _____ day of _____ 2024.

VILLAGE OF PALM SPRINGS, FLORIDA

BY: _____
BEV SMITH, MAYOR

ATTEST:

BY: _____
KIMBERLY M. WYNN, VILLAGE CLERK

REVIEWED FOR FORM AND LEGAL SUFFICIENCY

BY: _____
CHRISTY GODDEAU, VILLAGE ATTORNEY



PLANNING, ZONING & BUILDING STAFF REPORT

SUBJECT: Site Plan Amendment – Palm Beach Habilitation Center- 4522 South Congress Avenue.

Application Summary			
Applicant	Palm Beach Habilitation Center Inc	Submittal Date	3/05/2024
Reference Name	The ARC South Campus – Arts & Culture Building	Case Number	SPR24-05, PSSE24-02
		Parcel Control No	70-43-44-29-00-003-0010
Location	4522 South Congress Avenue	Site Area	9.11 acres (total area) 1.26 acres (proposed area of work)
P&Z B Meeting	September 10, 2024	Council Meeting	September 26, 2024
Requests			
Proposed Use(s)	Site Plan Amendment and Special Exception Use to allow a redevelopment project to create an Arts and Cultural Center. Additionally, the project includes renovating three (3) existing buildings, a 345 square feet addition and a new 3,000 square feet storage building.		
Number of Buildings	12 buildings total (60,309 s.f.) 11 existing buildings Proposed renovations of 3 existing buildings for arts and cultural center (total of 10,780 s.f. existing and addition) 1 new storage building 3,000 s.f.		
Parking			
Code	Existing/Required	Provided Overall	Meets Requirement
Total Parking	116 spaces existing 1/200 sf @ 345 sf = 2 spaces 1/2000 sf @ 3,000 sf = 2 spaces 120 total spaces required	125 spaces total	Yes (considering existing characteristics)
Building Setbacks			
Code	Required Minimum	Proposed	Meets Requirement
Front yard (North side)	50’	66.9’	Yes (existing)
Rear yard (South side)	20’	71.4’	Yes (existing)
Side street yard (West side)	25’	98.9’	Yes (existing)
Side interior yard (East side)	15’	29.6’ (existing) 32.2’ (proposed new building)	Yes (existing) Yes (proposed)
Site Characteristics			
Existing Use	Institutional Public Use Facility	Proposed Use	New Cultural Arts Building as part of the Public Use Facility
Zoning	Commercial General (CG)	Existing Future Land Use	Commercial
Surrounding Existing Land Use, Future Land Use, and Zoning			
Direction	Existing Use	Future Land Use	Zoning District
North	Palm Beach State College	Unknown Unincorporated Palm Beach County	Unknown Unincorporated Palm Beach County
South & East	John Prince Park	Unknown Unincorporated Palm Beach County	Unknown Unincorporated Palm Beach County
West	Residential Multifamily,	High Density Residential &	Residential Multiple-Family (RM)

	Service Station	Commercial	& Commercial General (CG)
Planning, Zoning and Building Staff recommends conditional approval of the new proposed cultural arts use and the proposed storage building, as depicted on the proposed site plan, based on consistency with the Village Comprehensive Plan and compatibility with surrounding uses.			



I Site History

- **Ordinance 2016-23: Annexation**
The property was annexed into the Village of Palm Springs on December 8, 2016 and designated with the Land Development as Commercial General zoning districts and future land use Commercial.
- **ASP201700733: Administrative Site Plan Amendment**
The Planning, Zoning and Building Director approved administrative a site plan amendment application to allow a 1,300 square foot addition to the existing STARS (Seniors in Transition and Retirement Services) building on June 14, 2017.
- **Resolution 2019-19: Site Plan Amendment and Special Exception Use**
On July 11, 2019 the Village Council approved above resolution to allow the construction of 11,775 square foot Cultural Arts Building and 5,900 square foot storage building. The project was never constructed.

The effectiveness of the Palm Beach Habilitation Center project approved by the Village Council via Resolution No. 2019-19, were extended/tolled pursuant to Section 252.363, F.S. and new expiration dates are as follow:

- The special exception approval per Resolution 2019-19 is extended from May 1, 2022 to February 18, 2024.
- The site plan approval is extended from November 1, 2022 to August 17, 2024.
- Completion of Phase 2 is extended from August 19, 2023 to June 7, 2025.

II Comprehensive Plan Consistency

- The subject property's Zoning and Future Land Use designation are Commercial General (CG) and Commercial, respectively. The site is located within the Village's College-Hospital Overlay (CHO). The proposed special exception use for the addition of a cultural arts building is consistent with goals, objectives and policies of the Village's Comprehensive Plan. This proposed use doesn't constitute any change to the existing use of the property as a Public Use Facility.

III Neighborhood Compatibility

- 1) The proposed project is located on the southeast corner of South Congress Avenue and 6th Avenue South within the Village's College-Hospital Overlay (CHO).
- 2) The property has access through the two major roadways (South Congress Avenue and 6th Avenue South).
- 3) The proposed facility is located within 1 mile of the major interstate highway I95.
- 4) JFK hospital is located approximately 0.5 mile south of the property.

IV Regulatory Issues

- The site plan generally conforms to the property development standards of the CG district.
 - 1) Proposed project plan generally meets required site development regulations.
 - 2) The civil/utility plans shall be approved prior to commence of any construction
 - 3) A utility easement shall be approved by the Lake Worth Beach Electric Utilities at time of permitting.
 - 4) The proposed cultural arts building is considered an ancillary use to the existing operations of the site, and it will serve the current patrons of the existing development.
 - 5) Permits from all applicable permitting agencies, including Lake Worth Beach Water Utility Department, Lake Worth Beach Electric Utilities Department and PBC Fire Rescue Department.

V Environmental Issues

There are no environmental (wetlands, floodplains, etc) issues identified.

VI Community Outreach/ Notification

- The subject property was posted on August 30, 2024.
- Public Notification letters were mailed to all property owners within 300-foot radius of subject property on September 3, 2024.
- Legal advertisement was published in the paper on August 29, 2024.
- Staff has not received any inquiries or comments as a result of the notices.

VII Proposed Development Plan Details

The petitioner's development plans dated received on March 5, 2024 depicts the following:

- Application for Special Exception Use and Site Plan amendment approval for the renovation of three (3) existing buildings to create an Arts and Cultural Center for its clients, this renovation will require a 345 square feet addition and a new 3,000 square feet storage building on the existing institutional public use facility.
 1. Site Plan dated received March 5, 2024 revised and resubmitted on August 23, 2024.
 2. Landscape plans dated received March 5, 2024 revised and resubmitted on August 23, 2024.
 3. Conceptual Engineering plans dated received March 5, 2024 revised and resubmitted on August 23, 2024.
 4. Drainage statement dated received May 1, 2024.
 5. Photometric plan dated received May 1, 2024.
 6. Architecture plan dated received May 1, 2024.
 7. Topographic survey dated received March 5, 2024.
 8. Justification statement of proposed use.
 9. Color rendering.

VIII Recommendation

The Palm Beach Habilitation Center is a facility that provide services to adults with developmental, emotional and physical disabilities so that they can achieve their greatest level of independence. It provides to both women and men job training, employment opportunities, residential services, recreational experiences and retirement services.

The applicant is requesting a site plan amendment and a special exception use to allow the renovation of three (3) existing buildings to create an Arts and Cultural Center for its clients, this renovation will require a 345 square feet addition to the existing warehouse building and a new 3,000 square feet storage building within the 1.26-acres located on the southeast portion of the Palm Beach Habilitation Center campus. The project constitutes an amendment to the previously approved site plan in 2019, where 11,775 square foot building was going to be constructed for a Cultural Arts Facility.

The project includes the renovation of three existing buildings (a warehouse, workshop building, and programming building) to be converted into an Arts and Cultural Center for ARC clients. The center will feature a large multi-purpose space which can host art shows and workshops, theatrical performances, and other art classes. This renovation requires a 345 square-foot addition to the warehouse building.

Additionally, a new parking area with 9 additional parking spaces north of the proposed Arts and Cultural Center is proposed in conjunction with new planting materials including Southern Live Oaks and Christmas Palms along the northern façade of the pre-function space.

Within the existing storage area at the southeast portion of the campus, a new 3,000-square foot storage building is proposed to house the materials currently being stored within the three building being renovated for the Arts and Cultural Center. The existing landscaping around existing storage area will be maintained.

Planning, Zoning and Building Staff has conducted a review of the application and found the proposed Special Exception use to be consistent with goals, objectives and policies of the Village's Comprehensive Plan. The proposed cultural arts building, and storage building are generally consistent with the land Development and Zoning regulation and all other portions of the code. The proposed special exception use does not significantly reduce light and air to adjacent properties and would not be deterrent to surrounding properties.

Planning, Zoning and Building Staff recommends conditional approval of the Special Exception Use and Site Plan Amendment, based on the surrounding characteristics and subject to the following thirty (30) conditions below:

1. The special exception approval for the new cultural arts building shall be implemented within 18 months of Council approval.
2. The site plan approval is valid within 24 months of Council approval.
3. Construction of the proposed storage building (Phase 2) shall be completed within 24 months of completion of Phase 1 (cultural arts buildings renovations), otherwise subsequent Village approvals are required prior to permitting.
4. Civil/Utility Plans shall be approved by the Village Engineer **at time of permitting** and conditions and/or recommendations listed in the August 29, 2024 recommendation letter issued by David Cowan from Chen Moore shall be addressed at time of civil/utility review.
5. Photometric plans shall be approved by the Village Planning, Zoning and Building and Police Departments **at time of permitting**.
6. Any proposed new dumpster shall be screened and enclosed accordingly with the Village Land Development Regulation.
7. Landscape buffers shall only overlap 5' any utility easement.
8. Proposed future storage building shall be constructed in accordance with the FBC edition in effect at the time of permitting.
9. Any special event to be held at the facility is subject to Special Event Permit approval by the Village.
10. Delivery hours shall not commence prior to 8:00 am or continue later than 9:00 pm.
11. Mechanical equipment and above-ground infrastructure shall be screened from view.
12. The project shall receive approval from all Authorities Having Jurisdiction including but not limited to PBC Fire Rescue Department, Lake Worth Beach Water Utilities Department and Lake Worth Beach Electric and submit copies to the Village **at the time of permitting**.
13. Per Police Department recommendation, security peep holes are required on any exterior doors.
14. It is recommended to have security cameras and access system for the new campus.
15. The Applicant may be required to undertake additional security measures, based on the number of complaints or calls for service for incidents at the premises, as determined by the Police Chief. Such additional security measures, as approved by the Police Chief, may include provisions of on-site security at the operator's sole expense.
16. Trees/palms slated for removal and destruction shall be offered to the Village for relocation to a public property. Property owners shall provide at least 60 days' notice to the Village and grant the Village permission to enter the property and relocate any trees approved for removal.
17. Verify utility and easement locations to ensure that there are no conflicts with landscaping, revise at time of permitting, as needed.
18. Landscaped areas shall be irrigated (including but not limited to buffer, islands, planter boxes, etc.). New irrigation systems shall be maintained separately from potable water distribution systems and shall include rain sensor shut-off mechanisms.
19. A pre-construction meeting shall be scheduled with the Village Land Development Department prior to commencement of any construction activity. Permits are required from the Land Development Department

prior to commencing any construction or renovation. The project shall be constructed in accordance with the FBC edition in effect at the time of permitting.

20. All new electrics shall be underground.
21. A silt barrier shall be installed around the perimeter of the affected area prior to commencement of any site work or construction activity, and a track pad shall be installed at the construction entrance(s), both of which shall remain through substantial completion.
22. The Landscaping shall be certified by the Landscape Architect upon completion and prior to Certificate of Occupancy.
23. Plants installed shall conform to or exceed the minimum standards for Florida Number 1, as provided in the most current edition of the Grades and standards for Nursery Plants, Part I and II, prepared by the State Department of Agriculture and Consumer Services.
24. Any sidewalk broken or damaged during construction shall be replaced by the contractor prior to CO.
25. The civil engineer of record shall certify the site construction prior to Certificate of Occupancy.
26. The applicant may be required to provide a resident inspector for structural elements such as concrete pours in accordance with Section 109.1.3 FBC 2010 and F.S. 553.791. Determination shall be made at time of pre-construction conference with Land Development Director.
27. Permits are required from the Planning, Zoning and Building Department prior to commencing any construction or renovation.
28. The General Contractor shall be on site during any and all construction activity in accordance with FS 489.1195.
29. At the time of CO, the petitioner shall provide the Planning, Zoning and Building Department with electronic copies of as-builts.
30. The dumpster provider including the construction dumpster shall be Republic Services who is under franchise Agreement with the Village. No drains to sanitary sewer are permitted in the dumpster pad.

PROJECT NARRATIVE
PALM BEACH HABILITATION
(THE ARC OF PALM BEACH COUNTY)
ARTS AND CULTURAL CENTER
SITE PLAN AMENDMENT REQUEST



Urban Design
Land Planning
Landscape Architecture

Request

Please accept this request by the Applicant and property owner, Palm Beach Habilitation Center, Inc. (aka The ARC of Palm Beach County), for a site plan amendment to their existing campus at 4522 S. Congress Avenue to renovate three (3) buildings to create an Arts and Cultural Center for its clients. The ARC of Palm Beach County provides educational, vocational, residential, and social program for people with developmental disabilities. Pursuant to Sec. 34-824, a Special Exception use is being requested to allow a Public Use and Facility (Arts and Cultural Center) in the Commercial General (CG) Zoning District. The proposed development will be conducted in two phases.

Since its merger with Palm Beach Habilitation in 2022, The ARC of Palm Beach County has been working on plans to update its existing campus at the southeast corner of 6th Avenue South and South Congress Avenue. As the result of this effort, the Applicant is requesting a site plan amendment for the creation of an Arts and Cultural Center on 1.26 acres of the 9.03-acre campus.

The request for the site plan amendment includes the following improvements:

- Renovation of three existing buildings (a warehouse, workshop building, and programming building) into an Arts and Cultural Center for ARC clients. The center will feature a large, multi-purpose space which can host art shows and workshops, theatrical performances, and other art classes. The first phase of the renovation will be for warehouse building for the center. This renovation will require a 345-square-foot addition to the warehouse building. In the second phase, buildings will be renovated for a pre-function space and a locker room/restrooms.
- A new, 3,000-square-foot storage building is proposed to be constructed at the south east corner of the site. The storage building will be use to replace the storage in the three buildings being renovated for the Arts and Cultural Center.
- Addition of a 9-space parking area, with an accessible space, is proposed to be located north of the proposed Arts and Cultural Center. None of the existing parking spaces within the campus are proposed to be revised.

The campus, which was originally built in 1968, was annexed into the Village on December 8, 2016 though the adoption of Ordinance 2016-23 and the site was designated with a Commercial future land use and Commercial General (CG). In 2017, an administrative amendment to the site plan for a 1,300-square-foot addition to an existing building on campus. In 2019, a Special Exception for a Public Use Facility for a site plan amendment for a new 11,775-square-foot cultural arts building and a 5,900-square foot storage building. These buildings were never constructed. Currently, the site contains 11 existing buildings, which including facilities for the developmentally disabled, executive offices, and a thrift store.

With this proposed site plan amendment, three existing buildings, totaling 10,780 square feet in size, will be renovated to create the Arts and Cultural Center for the ARC campus. In addition, a 3,000-square-foot storage facility is requested at the southeast corner of the site.

Location

The 9.03-acre subject site has frontage and access points to 6th Avenue South and South Congress Avenue. The site is located directly south of the Palm Beach State College's Lake Worth Campus. The property is bounded on its south and east boundaries by Palm Beach County's John Prince Park.

The site is located within the Village's municipal boundaries and has a PCN number of 70-43-44-29-00-003-0010. The site has a Commercial future land use designation and Commercial General (CG) zoning designation. The site is also located within the Village's College-Hospital Overlay (CHO).

Site Plan Analysis

As indicated above, the Applicant is requesting a site plan amendment for 1.26 acres on the eastern portion of the 9.023-acre campus at the southeast corner of 6th Avenue North and South Congress Avenue. The request includes the renovation of three existing buildings (a warehouse, workshop building, and programming building) into an Arts and Cultural Center for ARC clients.

The center will feature a large, multi-purpose space which can host art shows and workshops, theatrical performances, and other art classes. In addition, buildings will be renovated for a pre-function space and a locker room/restrooms. This renovation will require a 345-square-foot addition to the warehouse building.

In addition to the existing parking within the campus, a new parking area with 9 additional parking space north of the proposed Arts and Cultural Center.

New landscaping is proposed in front of the pre-function space, which will greet visitors to the Center. Southern Live Oaks and Christmas Palms will be planted on the northern façade of the pre-function space.

Within the existing storage area at the southeast portion of the campus, a new 3,000-square foot storage building is proposed within the middle of an existing gravel turnaround. This building, which will be located 32 feet from the site's eastern property line, will house the materials currently being stored within the three building being renovated for the Arts and Cultural Center. The existing landscaping around existing storage area will be maintained.

Special Exception Standards

In 2019, a Special Exception for a Public Use Facility for a site plan amendment for a new 11,775-square-foot cultural arts building and a 5,900-square foot storage building. These buildings were never constructed and the Special Exception approval expired. With this request, the Applicant is seeking to renew the Special Exception for the proposed Public Use and Facility use in the Commercial General (CG) zoning district.

Section 34-606(b) of the Village Land Development Code requires that specific criteria are addressed with a special exception request. The criteria from the Code have been provided in **bold** below and the response follow in *italics*.

1. The proposed special exception use is consistent with goals, objectives, and policies of the village's comprehensive plan.

The proposed use as a Public Use and Facility is in compliance with the goals, objectives, and policies of the Village's comprehensive plan. The subject property is located in the Commercial Land Use designation, along an arterial (South Congress Avenue) and the proposed use as public use and facility is highly compatible. The use has existed since the construction of the campus in 1968. Below are objectives and policies that are relevant to the proposed uses:

Future Land Use Element:

Objective B: "Commercial development shall be developed with an intensity and consistency established in the Future Land Use Map and oriented to primarily serve the needs of the residents while maintaining the integrity of residential areas".

Policy B.2: "Limit commercial development to areas with direct access to collector and arterial streets if it is consistent with the Village's residential character and the Future Land Use Map."

2. The proposed special exception is consistent with the land development regulations and all other portions of this Code

The proposed use as public use and facility is consistent with the Land Development and Zoning Regulations, as well as all other portions of the code.

3. The proposed special exception use is compatible with the character and use (existing and future) of the surrounding properties in its function; hours of operation, type and amount of traffic to be generated; building location, mass, height and setback; and other relevant factors peculiar to the proposed special exception use and the surrounding property.

The proposed use as public use and facility is compatible with the Land Development character and uses of existing and future surrounding public use properties. The amount of traffic generation by the site meets the adopted Traffic Performance Standards (TPS).

4. The establishment of the proposed special exception use in the identified location does not create a concentration or proliferation of the same or similar type of special exception use, which may be deemed detrimental to the development or redevelopment of the area in which the special exception use is proposed to be developed.

The requested special exception use will not create a concentration of a use nor will it be a proliferation of the same or similar use. In fact, the Applicant feels that developing a unique public use and facility type and making the investment into the area may spark redevelopment in this area. This infill development will enhance and contribute to the needs of the Village of Palm Springs.

5. The proposed special exception use does not have a detrimental impact on surrounding properties based on:

- a. The number of persons anticipated to be using, residing, or working on the property as a result of the special exception use;**

The number of persons anticipated onsite either working or using the property as a result of this use will not be detrimental to the surrounding properties. The proposed improvements will enhance the services being provided on the campus.

- b. The degree of noise, odor, visual, or other potential nuisance factors generated by the special exception use; and**

The site plan has been designed to use existing buildings within the east central portion of the site to mitigate any nuisance factors which may be created.

- c. The effect on the amount and flow of traffic within the vicinity of the proposed special exception use.**

The requested special exception use meets the County's Traffic Performance Standards (TPS) and the average daily traffic is less than what could be built as commercial without a special exception use approval.

6. That the proposed special exception use:

- a. Does not significantly reduce light and air to adjacent properties.**

As the request use includes the renovation of existing buildings, the proposal will not reduce the amount of light or air to adjacent properties.

- b. Does not adversely affect property values in adjacent areas.**

The proposed investment for the subject site will not adversely affect the property values in adjacent areas. The Applicant feels that the development of this property will have a positive effect to the adjacent properties and encourage new investment in the area.

- b. Would not be deterrent to the improvement, development or redevelopment of surrounding properties in accord with existing regulations.**

The proposed improvements of this property will not be a deterrent to the existing, future or proposed redevelopment of surrounding properties.

- c. Does not negatively impact adjacent natural systems or public facilities, including parks and open spaces.**

The renovation and improvements will not negatively impact the natural systems or public facilities, including parks and open spaces.

- d. Provides pedestrian amenities, including, but not limited to, benches, trash receptacles, and/or bicycle parking**

The proposed plan includes additional sidewalks which will link a new parking lot area with the proposed Art and Cultural Center.

Photos of the Site

In respect of the privacy of the clients on campus, the ability to provide on-site photos is limited.



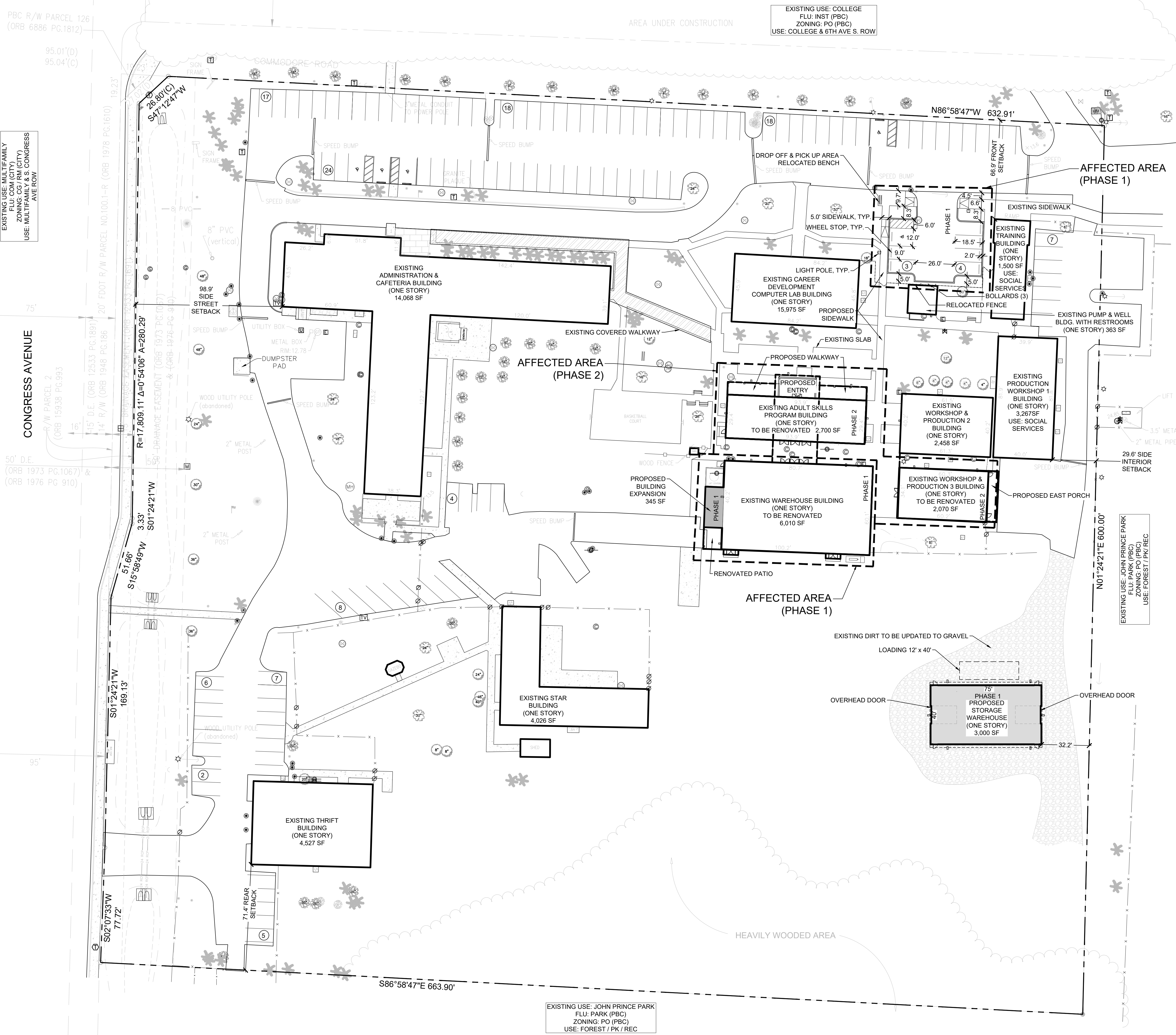
Figure 1 - Looking south at future parking lot location



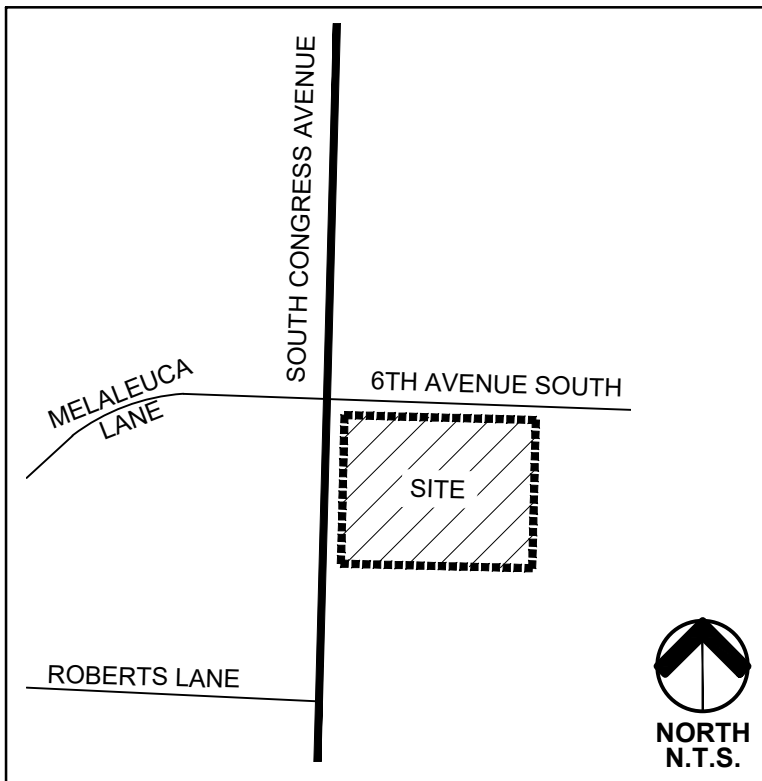
Figure 2 - Looking south at affected area



Figure 3 - Site Aerial



LOCATION MAP



SITE DATA

APPLICATION NAME:	THE ARC PALM BEACH COUNTY
ZONING DISTRICT:	CG
SECTION/TOWNSHIP/RANGE:	29/44/43
PCN:	70-43-44-29-00-003-0010
EXISTING USE:	ONE STORY OFFICE
PROPOSED USE:	PUBLIC USE AND FACILITY
FUTURE LAND USE:	COMMERCIAL
ZONING:	COMMERCIAL GENERAL (CG)
OVERLAY:	COLLEGE-HOSPITAL OVERLAY (CHO)
TOTAL GROSS SITE AREA:	9.032 AC (393,539.50 SF)
INCLUDES AFFECTED AREA	
1.26 AC (55,060.77 SF)	
TOTAL GROSS FLOOR AREA	60,309 SF (TOTAL)
ASSEMBLY, NON-PROFIT, INSTITUTIONAL	
ADMINISTRATION BUILDING & CAFETERIA	14,068 SF
CAREER DEVELOPMENT COMPUTER LAB	15,975 SF
ADULT SKILLS PROGRAM	2,700 SF
PUMP HOUSE	363 SF
TRAINING	1,500 SF
PRODUCTION WORKSHOP 1	3,267 SF
WORKSHOP & PRODUCTION 2	2,458 SF
WORKSHOP & PRODUCTION 3	2,070 SF
WAREHOUSE	6,010 SF
THRIFT SHOP	4,527 SF
STAR BUILDING	4,026 SF
PHASE 1 - ONE STORY ADDITION	345 SF
PHASE 2 - STORAGE WAREHOUSE	3,000 SF
TOTAL FLOOR AREA RATIO	0.26 FAR
TOTAL BUILDING COVERAGE (INCLUDING CANOPIES OF 4,100 SF)	
MAX BUILDING HEIGHT	34'-8"
NUMBER OF STORIES	1
SETBACKS	
FRONT (REQUIRED = 50')	66.9'
SIDE INTERIOR (REQUIRED = 15')	29.6'
SIDE STREET (REQUIRED = 25')	98.9'
REAR (REQUIRED = 20')	71.4'
PARKING	
REQUIRED PARKING SPACES	116
RETAIL 1/200 SF	
SOCIAL SERVICES 1/200 SF	
PROVIDED PARKING SPACES	123
EXISTING SPACES @ 116	
PROPOSED SPACES @ 7	
AFFECTED AREA	
REQUIRED PARKING SPACES	2 SP
1SP / 200 SF @ 345 SF	
PROPOSED PARKING SPACES	7 SP
PHASE 1	
PHASE 1 ADA SPACES REQUIRED	1 SP
PHASE 1 ADA SPACES PROVIDED	1 SP
IMPERVIOUS AREA:	53% / 0.59 AC (28,923.94 SF)
PERVIOUS / OPEN SPACE:	47% / 0.87 AC (26,136.83 SF)
AFFECTED AREA TOTAL	100% 1.26 AC (55,060.77 SF)

DEVELOPMENT TEAM

OWNER / APPLICANT:	SURVEYOR:
THE ARC PALM BEACH COUNTY	BROWN & PHILLIPS, INC.
1201 AUSTRALIAN AVENUE	1860 OLD OKEECHOBEE ROAD
RIVERA BEACH, FL 33404	SUITE 509
	WEST PALM BEACH, FL 33409
	561.615.3988
LANDSCAPE ARCHITECT & PLANNER:	CIVIL & TRAFFIC ENGINEER:
URBAN DESIGN STUDIO	KIMLEY-HORN
610 CLEMATIS STREET, SUITE CU02	477 S. ROSEMARY AVE. STE. 215
WEST PALM BEACH, FL 33401	WEST PALM BEACH, FL 33401
(561) 366-1100	561.840.0948
ARCHITECT:	
REG	
120 SOUTH OLIVE AVE. STE. 210	
WEST PALM BEACH, FL 33401	
561.659.2383	

GENERAL NOTES

- BASE INFORMATION OBTAINED FROM SURVEY PREPARED BY BROWN & PHILLIPS, INC. DATED SEPTEMBER 2023.
- ALL STOP BARS SHALL BE SETBACK 4' IN ADVANCE OF PEDESTRIAN CROSSWALKS.
- ACCESSIBLE PAVED ROUTES SHALL NOT EXCEED A 20:1 SLOPE.
- STOP BAR WILL BE WHITE PAVERS OR THERMOPLASTIC ON ASPHALT.
- CURBING DETAILS TO BE SHOWN ON ENGINEERING CONSTRUCTION PLANS.
- SEE ENGINEERING PLANS FOR ROADWAY CROSS SECTIONS.
- SURROUNDING INFORMATION AND PLANS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- HANDICAP PARKING SIGNS SHALL BE PLACED BEHIND THE SIDEWALK IN AREAS WHERE SIDEWALK ABUTS THE STALL AND OUTSIDE THE TWO (2) FOOT OVERHANG AREA WHERE WHEEL STOPS ARE NOT PROVIDED.

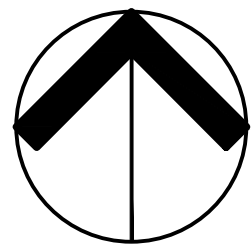
urban
design
studio

Urban Design
Land Planning
Landscape Architecture

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firm, or corporation without the written
permission of the designer.

The ARC Palm Beach County Arts Center Palm Springs, Florida Site Plan - Affected Area



NORTH

0 15' 30' 60'
Scale: 1" = 30'-0"

Date: December 2023
Project No.: 22-081.001
Designed By: JEV
Drawn By: JEV
Checked By: MM

Revision Dates:
04-26-2024 SUBMITTAL
07-26-2024 RESUBMITTAL
08-23-2024 RESUBMITTAL

SP-1
of 1

The ARC Palm Beach County

Landscape Plan - Affected Area

Palm Springs, Florida

NOTE: These Landscape Plans have been prepared to satisfy Palm Springs zoning requirements and to conceptually reflect landscape requirements for the site. They are not to be utilized for construction drawings until final engineering and architectural plans are available. These drawings are not to be used for Building Permit application until these plans are finalized.

SHEET INDEX

COVER SHEET & PLANT SCHEDULE	LA-1
TREE DISPOSITION PLAN.....	LA-2
LANDSCAPE PLAN.....	LA-3
TREE PROTECTION & RELOCATION.....	LA-4
PLANTING DETAILS	LA-5
PLANTING SPECIFICATIONS	LA-6

DEVELOPMENT TEAM

OWNER / APPLICANT:
THE ARC PALM BEACH COUNTY
1201 AUSTRALIAN AVENUE
RIVERA BEACH, FL 33404

LANDSCAPE ARCHITECT & PLANNER:
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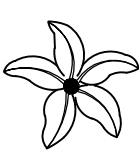
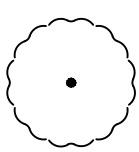
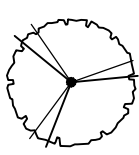
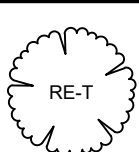
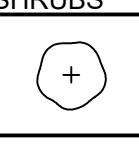
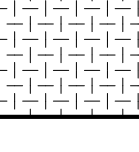
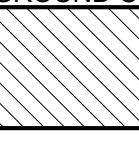
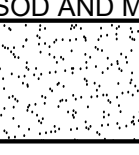
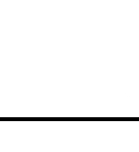
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SURVEYOR:
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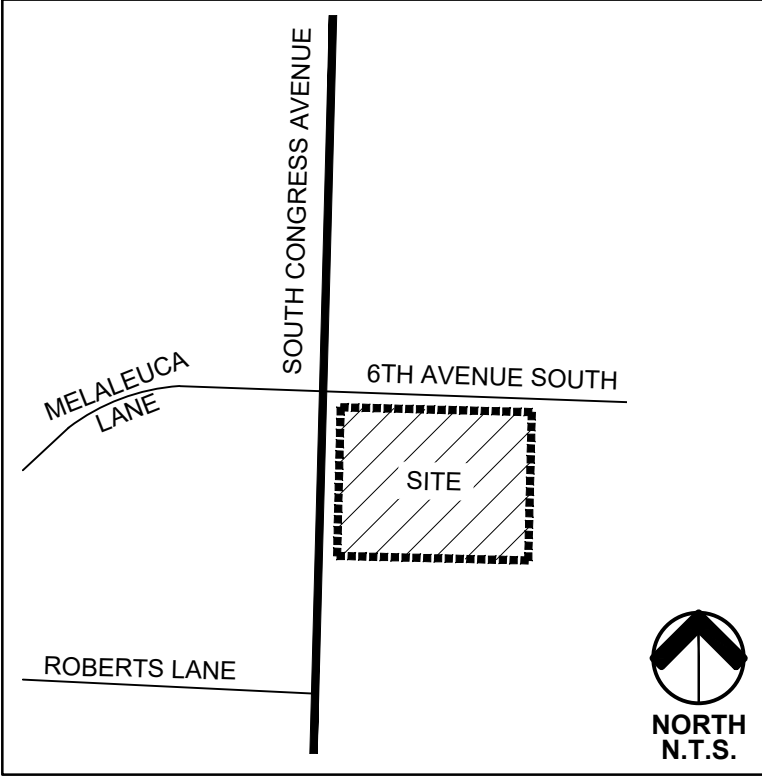
CIVIL & TRAFFIC ENGINEER:
KIMLEY-HORN
477 S. ROSEMARY AVE. STE. 215
WEST PALM BEACH, FL 33401
561.840.0848

PLANT SCHEDULE

- DROUGHT TOLERANT RATING BASED UPON SFWMD WATERWISE PUBLICATION - SOUTH FLORIDA EDITION.
- ALL PLANT MATERIAL SPECIFICATIONS AND CONTAINER SIZES LISTED IN THE PROJECT PLANT SCHEDULE ARE REQUIRED MINIMUMS. CONTRACTOR MAY EXCEED THE REQUIRED MINIMUM SPECIFICATION AND CONTAINER SIZE BASED ON MATERIAL AVAILABILITY.
- ALL PLANT MATERIAL SHALL MEET AND ADHERE TO LATEST EDITION OF FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS. ALL PLANT MATERIAL SHALL BE FLORIDA # 1 OR BETTER.THE LANDSCAPE ARCHITECT OR OWNER/OWNER'S REPRESENTATIVE HAVE THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING THESE STANDARDS.
- QUANTITIES ON PLANT SCHEDULE ARE FOR CONVENIENCE ONLY. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS.

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	NATIVE	DROUGHT TOLERANT
TREES					
	AM	5	Adonidia merrillii / Christmas Palm Min. 12' Ct. 16' O.A. Ht. Straight Trunk, Full Head, No Scarred Trunk	No	Yes
	CE	2	Conocarpus erectus sericeus / Silver Buttonwood 12' Ht. x 2" Cal., 5' CT. Min., 5' Spr. Min. Single Straight Trunk, Full Canopy, No Crotch	Yes	Yes
	QV	1	Quercus virginiana / Southern Live Oak 12' Ht. x 2" Cal., 5' CT. Min., 5' Spr. Min. Single Straight Trunk, Full Canopy, No Crotch	Yes	Yes
RELOCATED TREES					
	RE-T	1	Relocated / Tree Tree to be relocated, See sheet LA-4 for Tree Relocation details	Yes	Yes
SHRUBS					
	CHR	27	Chrysobalanus icaco 'Red Tip' / Red Tip Cocoplum Min. 24" Ht. 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base	Yes	Yes
	CHR2	188	Chrysobalanus icaco 'Red Tip' / Red Tip Cocoplum Min. 36" Ht. 36" Spr. 36" O.C., Full and Dense Shrub, Full to Base	Yes	Yes
SHRUB AREAS					
	MYF	72	Myrciathanes fragrans / Simpson's Stopper Min. 18" Ht. 18" Spr. 24" O.C., Full to Dense Shrub, Full to Base	Yes	Yes
GROUND COVERS					
	LIR	957	Liriope muscari / Lilyturf Min. 12" Ht. x 12" Spr. 12" O.C., Full to Edge of Pot	No	Yes
SOD AND MULCH					
	MULCH	1,656 sf	Mini Pine Bark Nugget / Mulch Depth of 3" After Settling, Free of Weeds and Pests. (Contractor to Verify Quantity Before Placing Bid)	N/A	N/A
	SOD	3,780 sf	Stenotaphrum secundatum / St. Augustine Grass 2" Thick Mat and Fully Rooted, Free of Weeds and Pests. (Contractor to Verify Quantity Before Placing Bid)	N/A	N/A

LOCATION MAP



GENERAL NOTES

- STREETSCAPE LANDSCAPE PLANS (STREET TREES AND PLANTINGS WITHIN ROW) ARE A SEPARATE DOCUMENT.
- SEE ENGINEERING PLANS PREPARED BY OTHERS FOR CONFIGURATION, HEIGHT AND SLOPE OF BERMS.
- DETAILING OF FOCAL POINTS AND HARDSCAPE ARE A SEPARATE DOCUMENT. SEE PLANS PREPARED BY OTHERS FOR THESE DETAILS.

LANDSCAPE NOTES

- BASE INFORMATION OBTAINED FROM SURVEY PREPARED BY BROWN & PHILLIPS, INC. DATED SEPTEMBER 2023.
- ALL INVASIVE SPECIES WILL BE ERADICATED FROM SITE AS REQUIRED BY CODE.
- ALL LANDSCAPE MATERIAL SHALL CONFORM TO THE MOST RECENT STANDARDS AS OUTLINED BY THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANT MATERIAL SHALL BE FLORIDA #1 OR BETTER.
- SIGHT TRIANGLES SHALL BE PROVIDED AND MAINTAINED BY OWNER CLEAR OF VEGETATION TO PROVIDE UNOBSTRUCTED VISIBILITY BETWEEN 30 INCHES AND 8 FEET ABOVE GRADE.
- UTILITY EASEMENTS SHALL NOT ENCR OACH INTO LANDSCAPE BUFFERS MORE THAN 5 FEET OR AS PERMITTED BY CODE.
- FDOT TYPE "D" OR "F" CURB OR WHEEL STOPS TO BE PROVIDED ALONG ALL LANDSCAPE AREAS, INCLUDING DRIVE AISLES AND PARKING SPACES.
- ALL INSTALLATION WORK SHALL BE CARRIED OUT IN A PROFESSIONAL MANNER IN ACCORDANCE WITH STANDARD NURSERY AND INSTALLATION PRACTICES.
- ALL LANDSCAPE AREAS SHALL BE SODDED, MULCHED OR OTHERWISE COVERED WITH GROUND COVER PER THESE PLANS AS LABELED.
- TREES SHOWN ON THIS PLAN ARE GRAPHIC REPRESENTATION ONLY. TREE SPACING IS BASED ON DESIGN REQUIREMENTS AND TREES SHOWN ON THESE PLANS ATTEMPT TO ACCOMPLISH THAT SPACING WHILE MAINTAINING THE REQUIRED SETBACKS FROM UTILITIES. TREES MAY BE FIELD ADJUSTED TO AVOID CONFLICTS WITH DRIVEWAYS AND UNDERGROUND UTILITIES.
- CONTRACTOR TO COORDINATE PLANTING OPERATIONS WITH ALL UNDERGROUND UTILITY PROVIDERS AND CALL "SUNSHINE DIG" / 811 TO FLAG UTILITY LOCATIONS PRIOR TO COMMENCING PLANTING OPERATIONS FOR ANY PORTION OF THE SITE. IF "SUNSHINE DIG" / 811 DOES NOT LOCATE ALL UNDERGROUND UTILITIES ON-SITE, THE CONTRACTOR IS RESPONSIBLE FOR SECURING THESE SERVICES FROM A PRIVATE PROVIDER.
- LANDSCAPE CONTRACTOR TO HAND DIG PLANTING HOLES FOR TREES AND/OR SHRUBS WITHIN FIVE (5') OF ALL FP&L EASEMENTS.
- GROUND MOUNTED MECHANICAL EQUIPMENT TO BE SCREENED PER THESE PLANS INCLUDING AS-BUILT EQUIPMENT LOCATIONS AT TIME OF LANDSCAPE INSTALLATION. CONTRACTOR TO NOTIFY OWNER / OWNER'S REPRESENTATIVE OF ADDITIONAL REQUIRED PLANT MATERIAL QUANTITIES AT TIME OF LANDSCAPE INSTALLATION FOR ADDITIONAL MECHANICAL EQUIPMENT OR RELOCATED EQUIPMENT THAT MAY REQUIRE ADDITIONAL LANDSCAPE SCREENING.
- PLANTINGS ADJACENT TO OVERHEAD LINES TO COMPLY WITH FP&L's "RIGHT TREE IN THE RIGHT PLACE" GUIDELINES FOR MINIMUM SEPARATIONS TO OVERHEAD LINES.

MULCH NOTES

- MULCH SHALL BE GRADE A PREMIUM NATURAL MULCH, OR APPROVED EQUAL, FREE OF FOREIGN MATERIALS AND WEED SEEDS. MINIMUM DEPTH AFTER SETTLING SHALL BE THREE (3") INCHES.

UTILITY SETBACK NOTES

- ALL SETBACK DIMENSIONS SHOWN ON THE PLANS ARE TO BE MET AT THE TIME OF INSTALLATION.
- TREES ARE TO BE INSTALLED WITH A TEN FOOT (10') SEPARATION FROM ANY WATER OR SEWER MAIN AND/OR SERVICE, HYDRANTS, AND LIFT STATIONS, OR WITH A MINIMUM SEVEN FOOT (7') SETBACK IF INSTALLED WITH A ROOT BARRIER SYSTEM. REFER TO THE "ROOT BARRIER" DETAIL ON THE PLANTING DETAILS SHEET FOR INSTALLATION REQUIREMENTS. HOWEVER IN NO CASE SHALL A TREE ENCR OACH INTO A UE WITHOUT PRIOR UTILITY PROVIDER APPROVAL AND ONLY SOD CAN BE INSTALLED WITHIN 5' OF ANY WATER METER AND WITHIN 7.5' OF ANY FIRE HYDRANT UNLESS OTHERWISE APPROVED BY THE FIRE MARSHAL AND UTILITY PROVIDER.
- TREES ARE TO BE INSTALLED WITH A TEN FOOT (10') SEPARATION FROM ANY DRAINAGE OR STORM SEWER INFRASTRUCTURE. OR WITH A MINIMUM SEVEN FOOT (7') SETBACK IF INSTALLED WITH A ROOT BARRIER SYSTEM. REFER TO THE "ROOT BARRIER" ON THE PLANTING DETAILS SHEET FOR INSTALLATION REQUIREMENTS.
- WHERE REQUIRED, ROOT BARRIER TO BE INSTALLED WITH A MINIMUM 5' SEPARATION TO THE EDGE OF ALL UNDERGROUND UTILITIES AND INFRASTRUCTURE.
- TREES SHALL BE PLANTED WITH A MIN. 2' SEPARATION BETWEEN ANY ROOT BARRIER (MEASURED FROM THE CENTER OF THE TREE).

LANDSCAPE EXCAVATION & BACKFILL NOTES

- TREE AND SHRUB PLANTING BEDS WHICH FALL WITHIN OR NEAR ROADWAY AREAS SHALL BE COMPLETELY EXCAVATED AND BACK-FILLED WITH TOPSOIL. ALL SHELL-ROCK OR OTHER BASE MATERIALS, AND ALL SUBSOIL AND DEBRIS, SHALL BE COMPLETELY REMOVED FROM BENEATH SUCH PLANTING AREAS, TO A MINIMUM DEPTH OF 36". UPON COMPLETION OF EXCAVATION, LANDSCAPE ARCHITECT OR OWNER SHALL INSPECT THE EXCAVATED AREA PRIOR TO BACKFILLING WITH TOPSOIL.
- ALL TREE AND/OR SHRUB PLANTING AREAS WITHIN 8' OF BUILDING FOUNDATIONS, AND ANY OTHER PLANTING AREAS WHERE SIGNIFICANT BURIED CONSTRUCTION DEBRIS IS ENCOUNTERED, SHALL BE COMPLETELY EXCAVATED TO A MINIMUM DEPTH OF 36". UPON COMPLETION OF EXCAVATION, LANDSCAPE ARCHITECT OR OWNER SHALL INSPECT THE EXCAVATED AREA PRIOR TO BACKFILLING WITH TOPSOIL.



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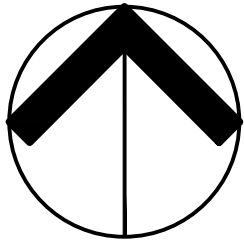
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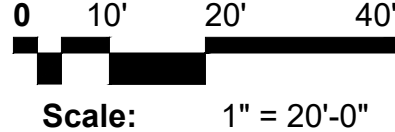
Palm Springs, Florida

Landscape Plan - Affected Area

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NORTH



Scale: 1" = 20'-0"

Date: December 2023
Project No.: 22-081.001
Designed By: JEV
Drawn By: JEV
Checked By: NM

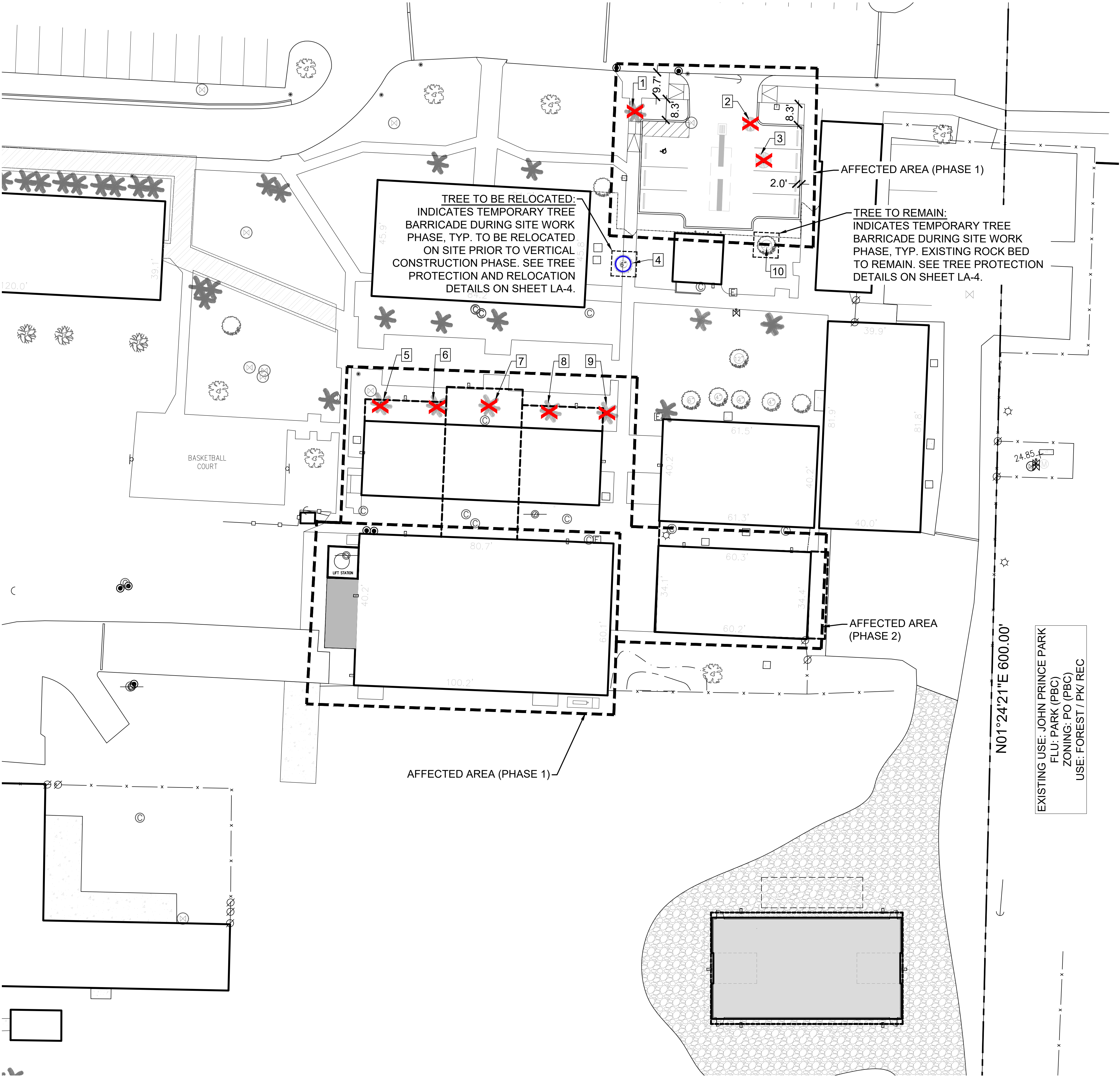
Revision Dates:

04-26-2024 SUBMITTAL
07-26-2024 RESUBMITTAL
08-23-2024 RESUBMITTAL

LA-1
of 6

RESUBMITTAL

TREE DISPOSITION PLAN - AFFECTED AREA



LEGEND

BANYAN TREE(X"=DBH)		TREE / PALM TO REMAIN
BLACK OLIVE TREE(X"=DBH)		
SCHEFFLERA TREE(X"=DBH)		
SEAGRAPE TREE(X"=DBH)		
GUMBO LIMBO TREE(X"=DBH)		
MAHOGANY TREE(X"=DBH)		
OAK TREE(X"=DBH)		
PALM TREE(X"=DBH)		
POINSETTIA(X"=DBH)		
UNKNOWN TREE (X"=DBH)		
		TREE / PALM TO BE REMOVED
		TREE / PALM TO BE RELOCATED

NOTES

- BASE INFORMATION OBTAINED FROM SURVEY PREPARED BY BROWN & PHILLIPS, INC. DATED SEPTEMBER 2023.
- ALL TREES / PALMS TO REMAIN SHALL BE PROTECTED IN ACCORDANCE WITH THE TREE PROTECTION DETAILS ON SHEET LA-4.
- ALL TREES / PALMS TO BE RELOCATED WILL BE EVALUATED BY A TREE RELOCATION PROFESSIONAL FOR POTENTIAL TO BE TRANSPLANTED AT ISSUANCE OF TREE BARRICADE PERMIT.
- THE OWNER/APPLICANT MAY ESTABLISH A TEMPORARY HOLDING AREA FOR TREES TO BE RELOCATED, PRIOR TO MOVING THEM TO THEIR ULTIMATE FINAL LOCATION.

TREE DISPOSITION CHART - AFFECTED AREA

Tree No.	TREE SPECIES	SIZE AT BREAST HEIGHT	DISPOSITION	NOTES
1	Queen Palm	8"	Remove	Trunk shows insect damage
2	Poinsettia Tree	14"	Remove	Leaning
3	Mahogany Tree	18"	Remove	Low-croch split trunk with insect damage
4	Exotic Tree	6"	Relocate	Good Condition
5	Queen Palm	10"	Remove	Trunk shows insect damage
6	Queen Palm	10"	Remove	Trunk shows insect damage
7	Queen Palm	10"	Remove	Trunk shows insect damage
8	Queen Palm	8"	Remove	Trunk shows insect damage
9	Queen Palm	12"	Remove	Trunk shows insect damage
10	Exotic Tree	30"	Remain	Good Condition

EXISTING TREE DISPOSITION - AFFECTED AREA

RELOCATED TREES	1 EXOTIC TREE
RELOCATED PALMS	0 QUEEN PLAMS
REMOVED TREES	1 POINSETTIA TREE & 1 MAHOGANY
REMOVED PALMS	5 QUEEN PALMS
TREE TO REMAIN	1 EXOTIC TREE



Mahogany Tree (tag #3)
TREE TO REMOVE

- Low-Crotch split Trunk with Insect Damage



Exotic Tree (tag #10)
TREE TO REMAIN

- Good Condition



Exotic Tree (tag #4)
TREE TO BE RELOCATED

- Good Condition

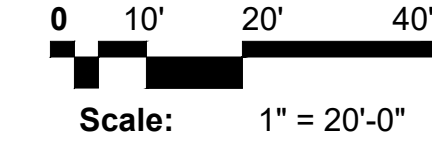
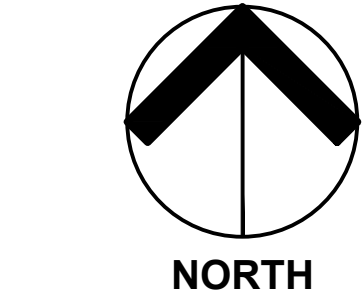
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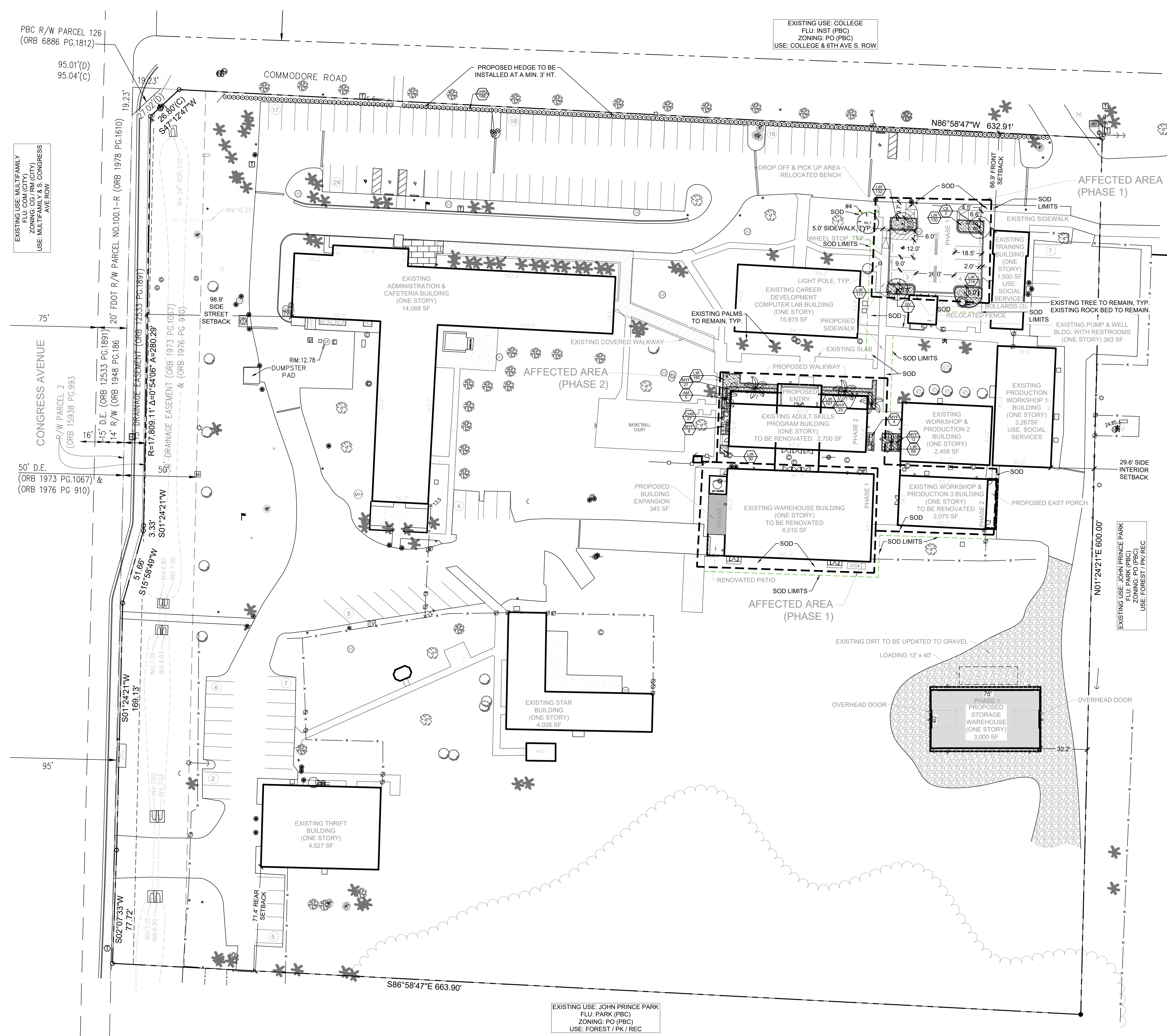
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Arts Center
Palm Springs, Florida
Tree Disposition Plan - Affected Area



Scale: 1" = 20'-0"

Date:	December 2023
Project No.:	22-081.001
Designed By:	JEV
Drawn By:	JEV
Checked By:	NM

Revision Dates:	
04-26-2024	SUBMITTAL
07-26-2024	RESUBMITTAL
08-23-2024	RESUBMITTAL



PLANT SCHEDULE

- 1) DROUGHT TOLERANT RATING BASED UPON SFWMD WATERWISE PUBLICATION - SOUTH FLORIDA EDITION.
- 2) ALL PLANT MATERIAL SPECIFICATIONS AND CONTAINER SIZES LISTED IN THE PROJECT PLANT SCHEDULE ARE REQUIRED MINIMUMS. CONTRACTOR MAY EXCEED THE REQUIRED MINIMUM SPECIFICATION AND CONTAINER SIZE BASED ON MATERIAL AVAILABILITY.
- 3) ALL PLANT MATERIAL SHALL MEET AND ADHERE TO LATEST EDITION OF FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS. ALL PLANT MATERIAL SHALL BE FLORIDA # 1 OR BETTER.THE LANDSCAPE ARCHITECT OR OWNER/OWNER'S REPRESENTATIVE HAVE THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING THESE STANDARDS.
- 4) QUANTITIES ON PLANT SCHEDULE ARE FOR CONVENIENCE ONLY. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS.

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME
TREES			
	AM	5	Adonidia merrillii / Christmas Palm Min. 12' Ct. 16' O.A. Ht. Straight Trunk, Full Head, No Scarred Trunk
	CE	2	Conocarpus erectus sericeus / Silver Buttonwood 12' Ht. x 2" Cal., 5' CT. Min., 5' Spr. Min. Single Straight Trunk, Full Canopy, No Crotch
	QV	1	Quercus virginiana / Southern Live Oak 12' Ht. x 2" Cal., 5' CT. Min., 5' Spr. Min. Single Straight Trunk, Full Canopy, No Crotch
RELOCATED TREES			
	RE-T	1	Relocated / Tree Tree to be relocated, See sheet LA-4 for Tree Relocation details
SHRUBS			
	CHR	27	Chrysobalanus icaco 'Red Tip' / Red Tip Cocoplum Min. 24" Ht. 24" Spr. 24" O.C., Full and Dense Shrub, Full to Base
	CHR2	188	Chrysobalanus icaco 'Red Tip' / Red Tip Cocoplum Min. 36" Ht. 36" Spr. 36" O.C., Full and Dense Shrub, Full to Base
SHRUB AREAS			
	MYF	72	Myrcianthes fragrans / Simpson's Stopper Min. 18" Ht. 18" Spr. 24" O.C., Full to Dense Shrub, Full to Base
GROUND COVERS			
	LIR	957	Liriodendron / Lilyturf Min. 12" Ht. x 12" Spr. 12" O.C., Full to Edge of Pot
SOD AND MULCH			
	MULCH	1,656 sf	Mini Pine Bark Nugget / Mulch Depth of 3" After Settling, Free of Weeds and Pests. (Contractor to Verify Quantity Before Placing Bid)
	SOD	3,780 sf	Stenotaphrum secundatum / St. Augustine Grass 2" Thick Mat and Fully Rooted, Free of Weeds and Pests. (Contractor to Verify Quantity Before Placing Bid)

EXISTING TREE/PALM LEGEND

BANYAN TREE(X"-DBH)	
BLACK OLIVE TREE(X"-DBH)	
SCOFFLERA TREE(X"-DBH)	
SEAGRAPE TREE(X"-DBH)	
GUMBO LIMBO TREE(X"-DBH)	
MAHOGANY TREE(X"-DBH)	
OAK TREE(X"-DBH)	
PALM TREE(X"-DBH)	
POINSETTIA(X"-DBH)	
UNKNOWN TREE (X"-DBH)	

TREE / PALM
TO REMAIN



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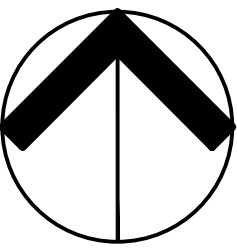
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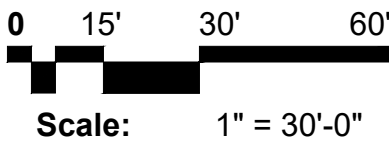
Arts Center

Palm Springs, Florida

Landscape Plan - Affected Area



NORTH



Scale: 1" = 30'-0"

Date: December 2023
Project No.: 22-081.001
Designed By: JEV
Drawn By: JEV
Checked By: NM

Revision Dates:

04-26-2024 SUBMITTAL
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Tree Protection Management Plan

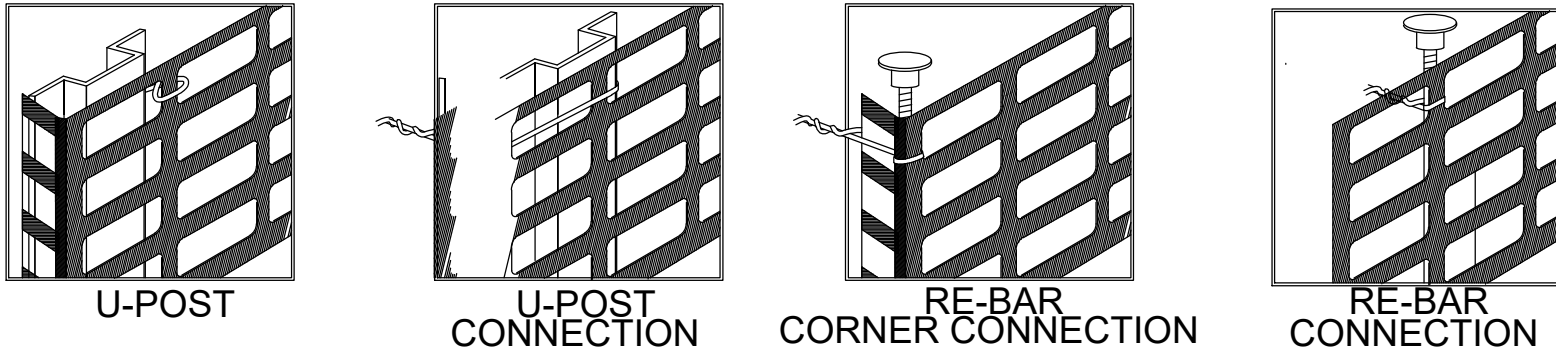
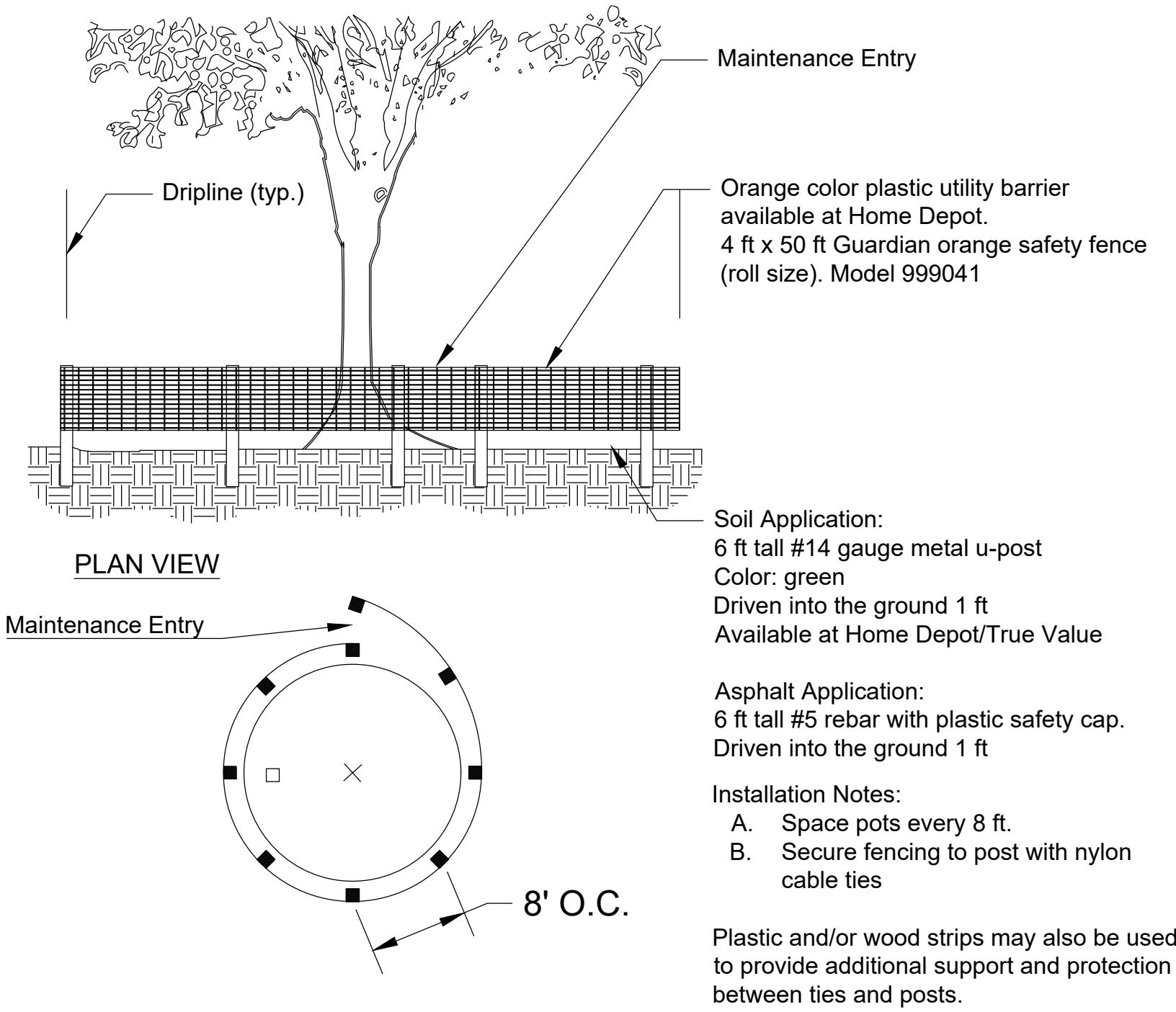
Prior to clearing any of the property for development, the contractor will do the following items:

Clearly identify and mark all trees to be preserved consistent with the approved Landscape Plan.

Install appropriate protective barriers around individual and groups of trees to be preserved.

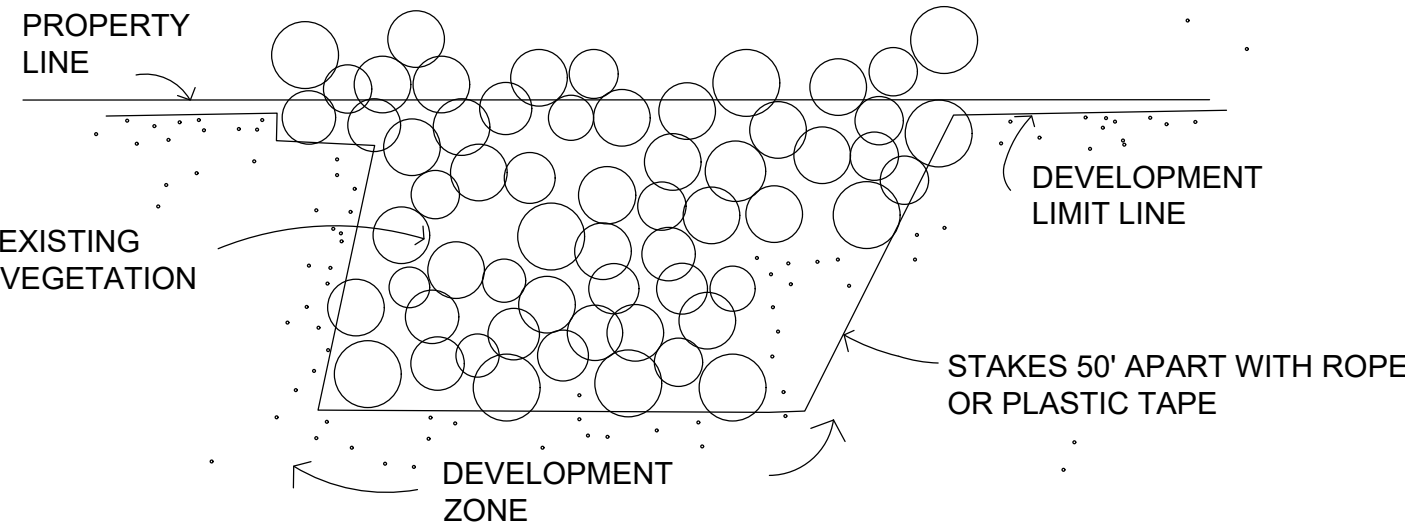
A suitable protective barrier of metal, wood or other material shall be placed around individual protected trees:

- a distance of 6' or more from all species of mangroves
- a distance of 6' or more, or at a distance outside of 2/3 of the radius of the dripline, whichever is greater, from all protected hardwoods
- a distance of 6' or more, or at a distance outside of 2/3 of the radius of the dripline, whichever is greater, of all protected conifers

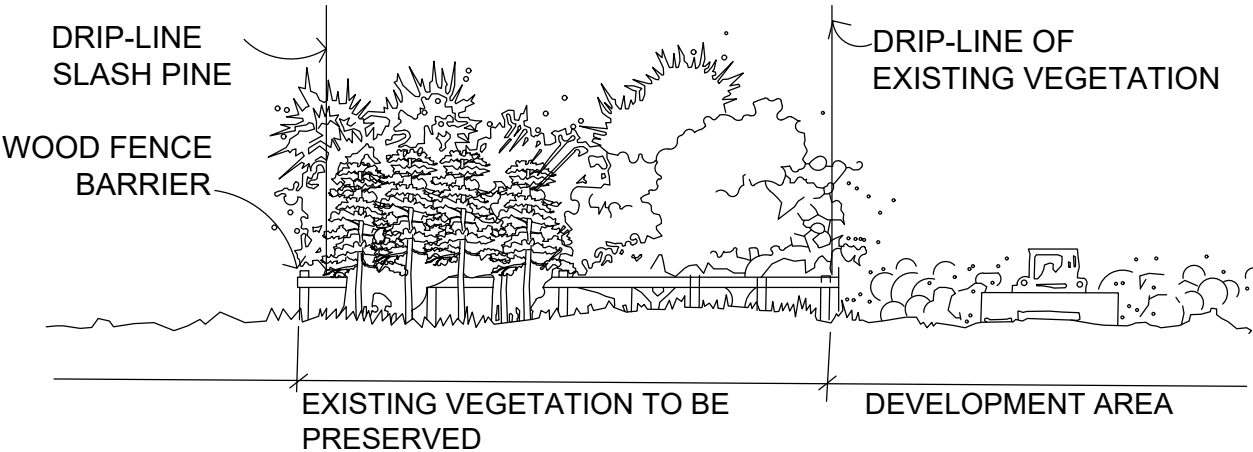


TREE PROTECTION BARRIER DETAIL

Unless conditioned in the vegetation removal permit, groups of trees or areas of vegetation to be preserved shall not require protective barriers. These areas will be marked by stakes installed at a maximum of 50' apart with rope or plastic tape attached to said stakes around the perimeter of the protected area.



Sturdy wood posts and rails shall be used to ensure that barricades can withstand construction activity.



Protective barriers or markings shall remain in place until they are authorized to be removed by staff or receipt of a CO.

There shall be limited development within tree preservation areas:

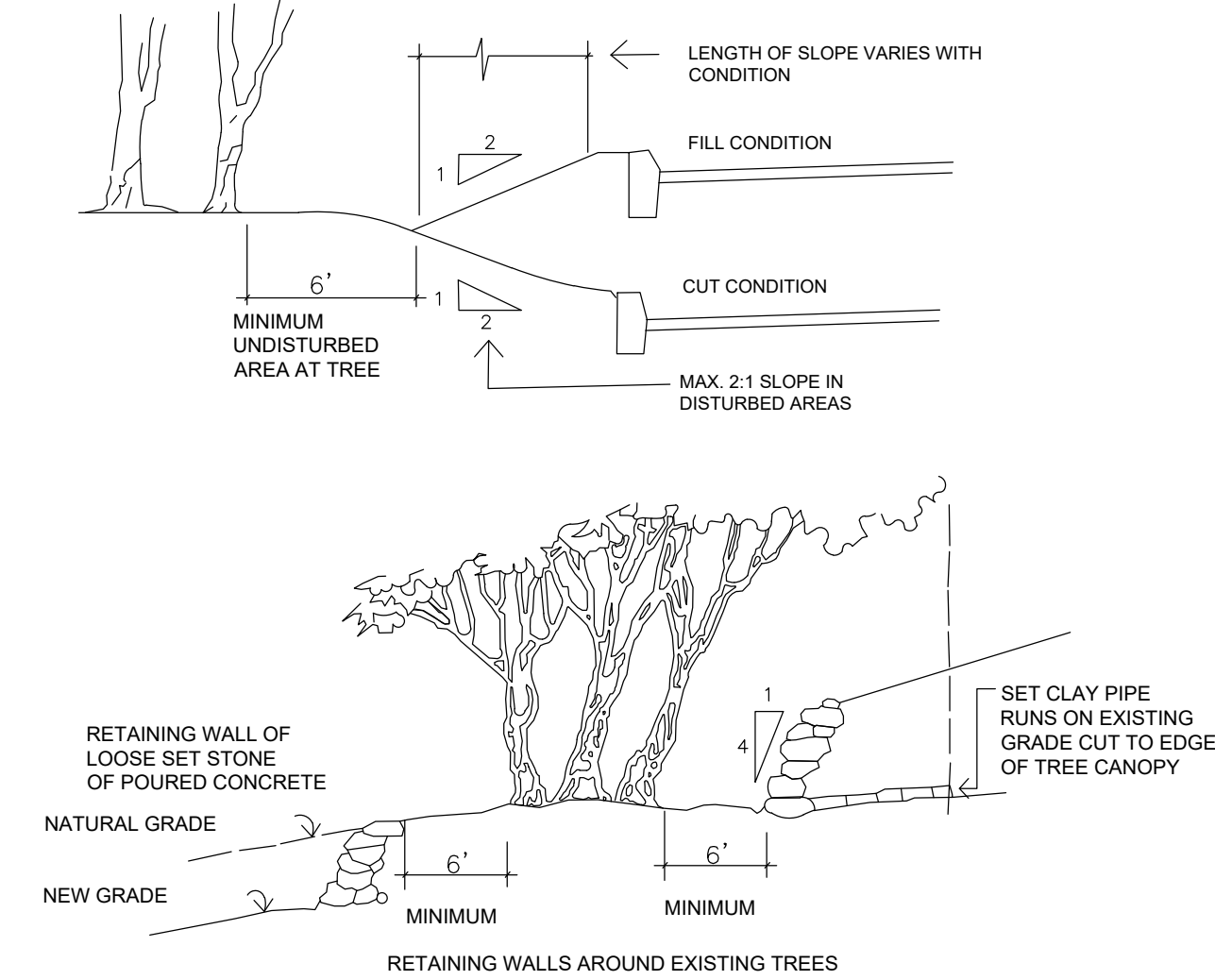
- maintained in its natural state
- provide permeable landscape natural. i.e., grass, mulch
- conform to governing landscape code.

There will be no attachment of signs, etc. to vegetation unless of a non-damaging character.

Light machinery or hand-labor is to be used if vegetation is to be installed in preservation areas.

No grade changes shall be made within tree preservation areas, which require trenching or cutting of roots unless conditioned. Utility lines shall be installed to protect root systems as much as possible.

No removal of soil or fill in tree preservation areas shall occur.



No clearing shall commence until all protection devices are installed, inspected and approved by the Zoning Division and Environmental Resource Management Department.

TREE RELOCATION PROGRAM

Plant Species Requirements

Live Oaks - Best time to move is in their dormant season. Worst time to move is in the spring because of their flush of new growth and lack of precipitation. They should be root pruned at least two weeks in advance of the move and need to be watered in heavily the first two weeks after transplanting.

Root Pruning and Transplanting

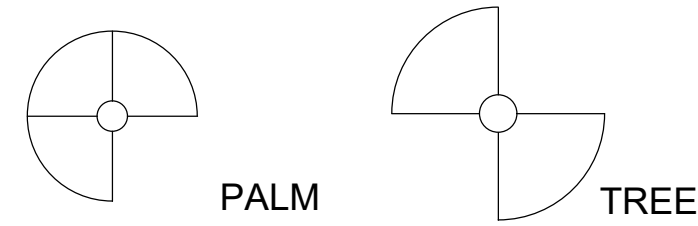
When it is determined that a tree or palm needs to be transplanted, it is beneficial and sometimes required that the plant be root pruned. Root pruning is done to reduce the size of an existing root ball in preparation for transplanting. The root ball is reduced to create a new root system large enough to sustain life in the tree/palm while making its move more effective for transportation. The time it takes for the root system to develop before transplanting will vary from tree to tree, depending on soil moisture content. An estimated wait time follows in the schedule listed below.

- Clear the area around the tree that has been selected.
- Determine the size of the root ball that is being prepared.

Tree Caliper	Root Ball
2-4"	36-42"
4-6"	42-48"
6-8"	48-60"
8-10"	72-84"
12-14"	84-96"
14-16"	96-108"
16-18"	108-120"
18-20"	120-132"
20-24"	132-144"
24-28"	144-156"
28-32"	156-168"
32-36"	168-180"

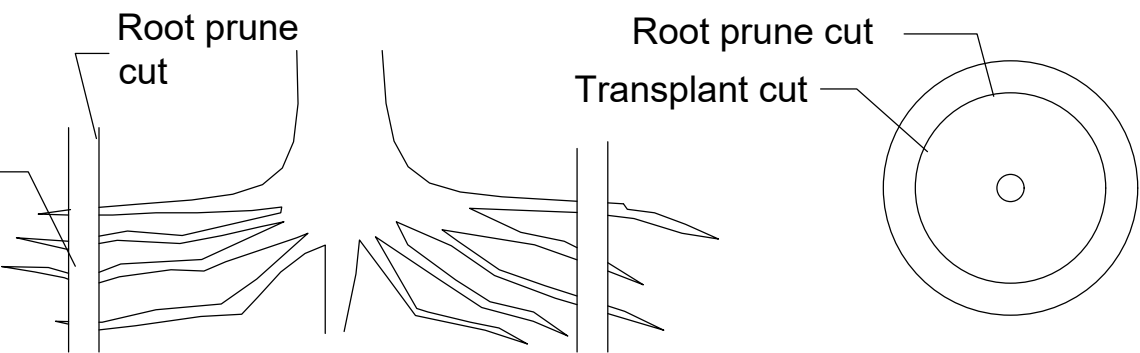
Sabal Palms	4' Root Ball
Coconut Palms	4-5' Root Ball
Queen Palms	4' Root Ball
Canary Island Date Palms	5-6' Root Ball
Reclinata Palms	6-8' Root Ball
Paurotis Palms	6-8' Root Ball
Sago Palms	3-4' Root Ball
Royal Palms	5-6' Root Ball

- Palms may be cut on three sizes leaving the open side toward the strongest northeast winds.
- Broadleaf trees should be cut on two sides initially opposite each other.



Transplant cut

- Once the ball size has been determined, mark the spot around the ball and prepare for a 1' trench around the tree. Use sharp spades for root pruning and do not cut under the root ball. Leave old cut roots on top of root ball.



- Fill trench with existing soil with 1/3 peat humus mixed in. Leave a depression to hold water.

- Irrigate with a mist head at root ball to help promote feeder roots and maintain watering.

- Wait time after root pruning until transplanting per individual specifications, for differing types of plant material.

Ficus Trees	6 weeks to 90 days
Palms	6 weeks to 90 days
Oaks, 6" and under	6 weeks to 90 days
Oaks, 6" - 12"	90 days to 6 months
Oaks, 12" and above	6 months to 1 year

- Fertilize top of ball with milorganite after root pruning.

- Some bracing may be required after root pruning.

- A full top will encourage feeder root growth. Previous to transplanting, remove enough top growth to balance the smaller root system. Thin out and trim back unwanted foliage and branches.

- Cut trench for transplanting outside of root pruned trench to allow for feeder roots.

- Lift tree from one side to break suction and peel off root ball. If it doesn't break then dig under to sever roots.

Specifications:

- Contractor shall be responsible for locating any and all underground utilities or obstructions prior to commencing work. In case of conflict with proposed work, notify landscape architect prior to commencement of work.

- Contractor shall provide adequate irrigation to assure the healthy establishment of relocated trees.

- Pruning of limbs shall occur only as necessary to facilitate relocation and shall maintain the natural shape and character of tree.

- Finish grade for top of tree plug shall meet the proposed finish grade after relocation.

- All plant materials shall be relocated to freshly dug holes with similar size and type of tree moving equipment. The holes should be filled 1/3 with water, place tree, back fill and water in thoroughly, being sure to avoid air pockets. Provide 4"-6" dish around newly dug plant material to retain water. Water thoroughly after planting as specified.

- All trees exhibiting shallow root systems shall be staked as required.

- Prune, thin out and shape relocated trees, shrubs and understory in accordance with desired effect of the landscape architect and to retain natural character. Remove all vines and exotic vegetation. Maintain relocated plant materials for a period of not less than 90 days. Maintain by watering, removing of exotic vegetation or weeds, providing insecticide applications and mulching.

- The contractor shall protect trees during relocation procedures from scrapes, scars and undue breakage. Understory plant material moved with primary species shall be protected against damage.

- Landscaping contractor shall provide a one (1) year warranty on all relocated material.



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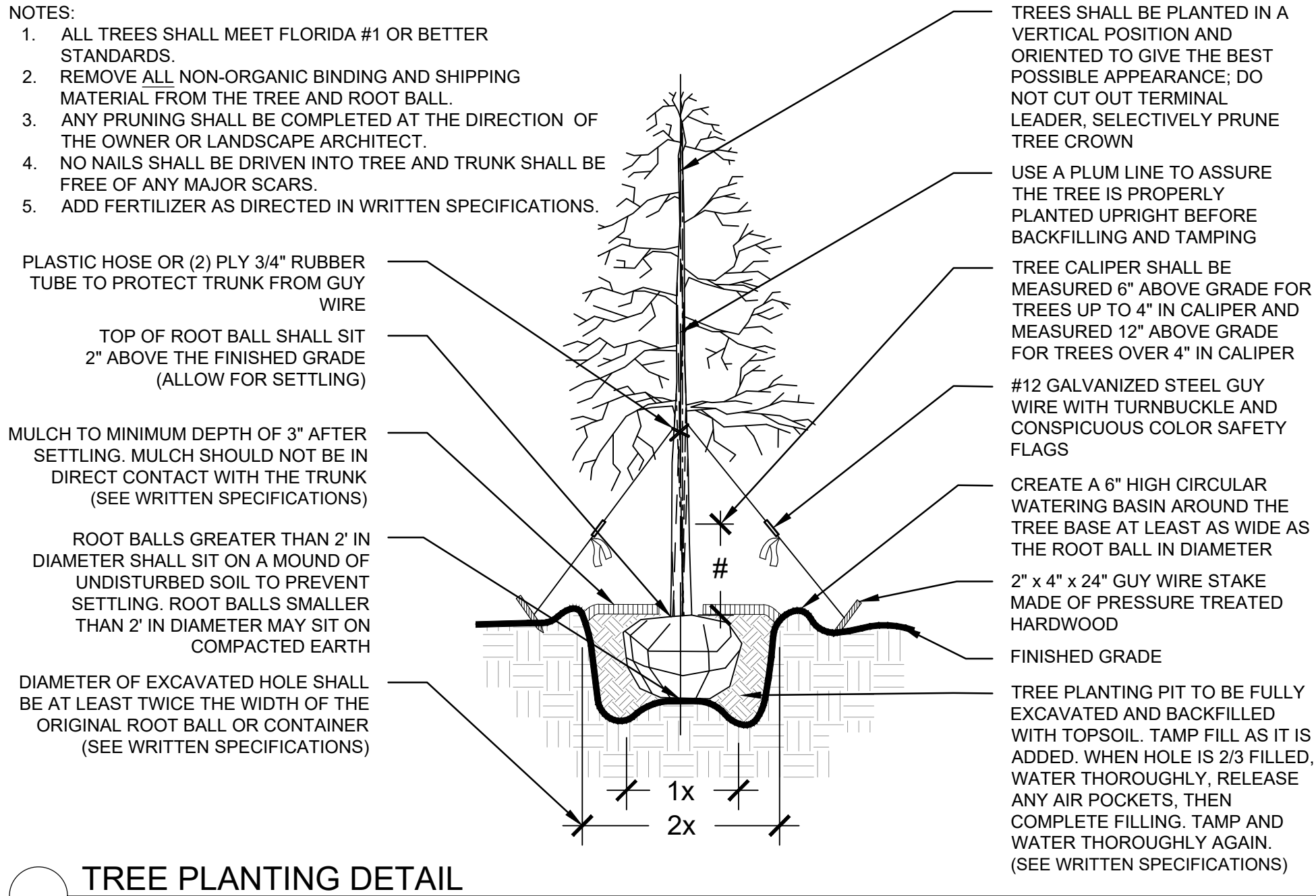
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Palm Springs, Florida
Tree Protection and Relocation

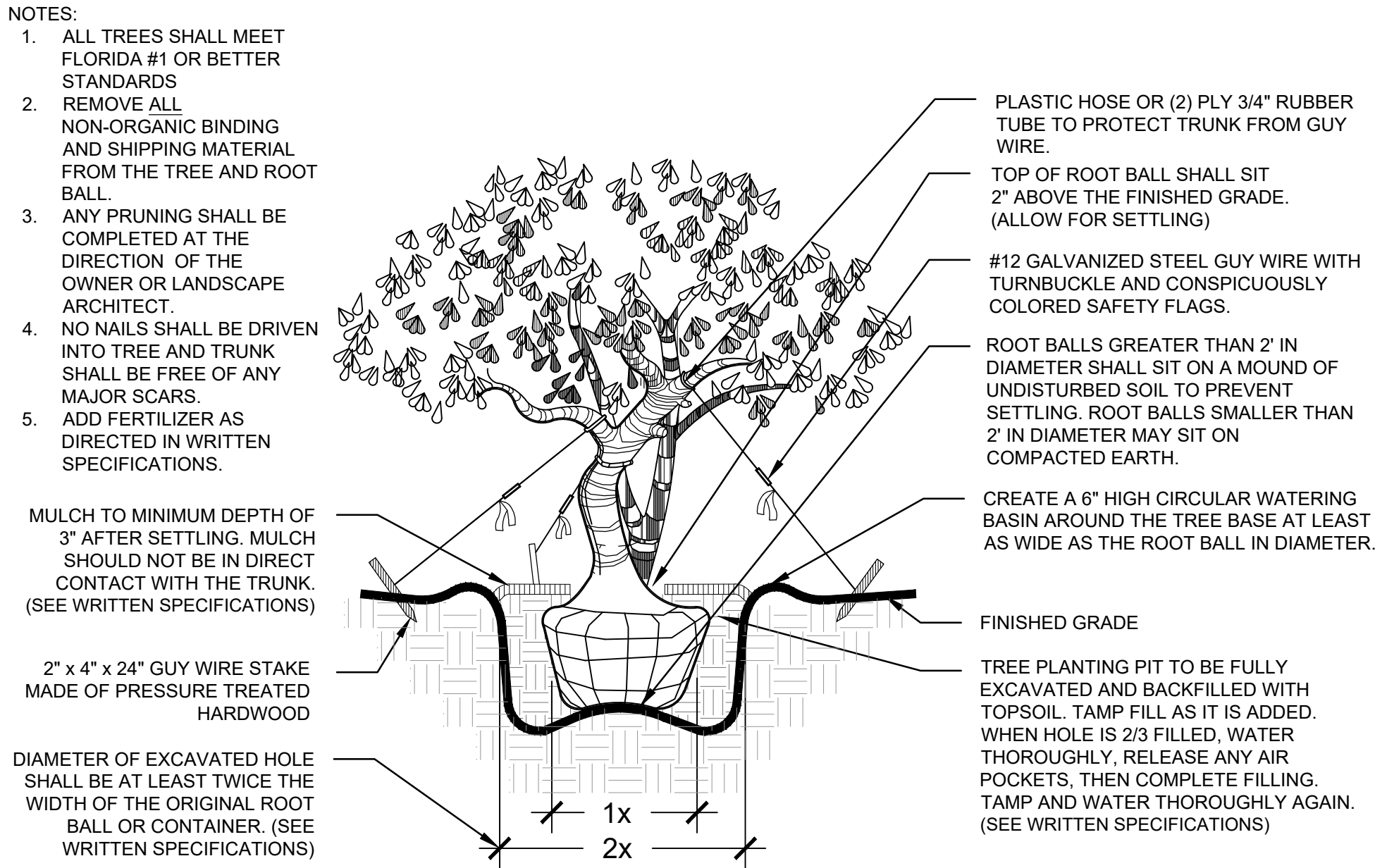
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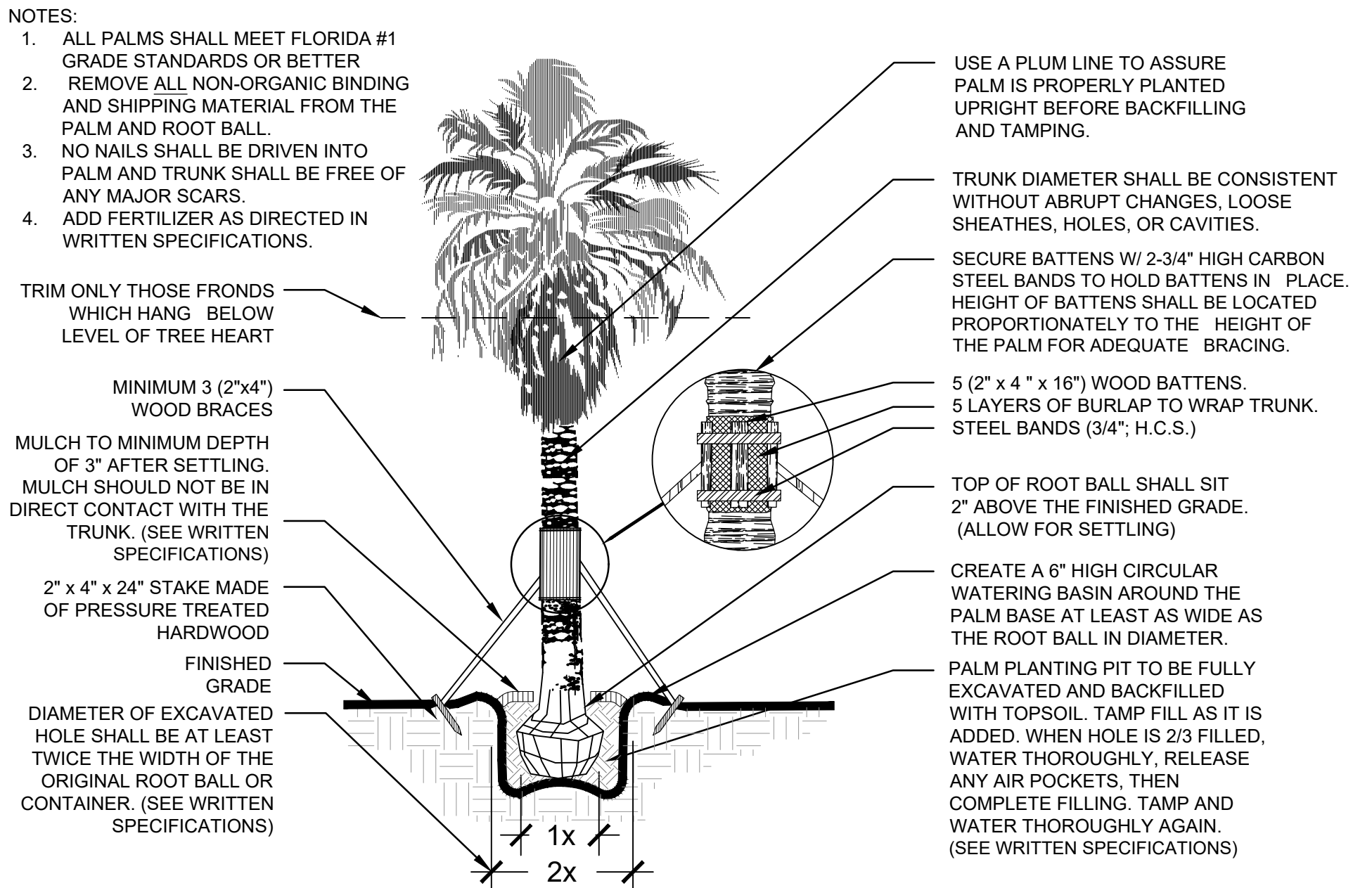
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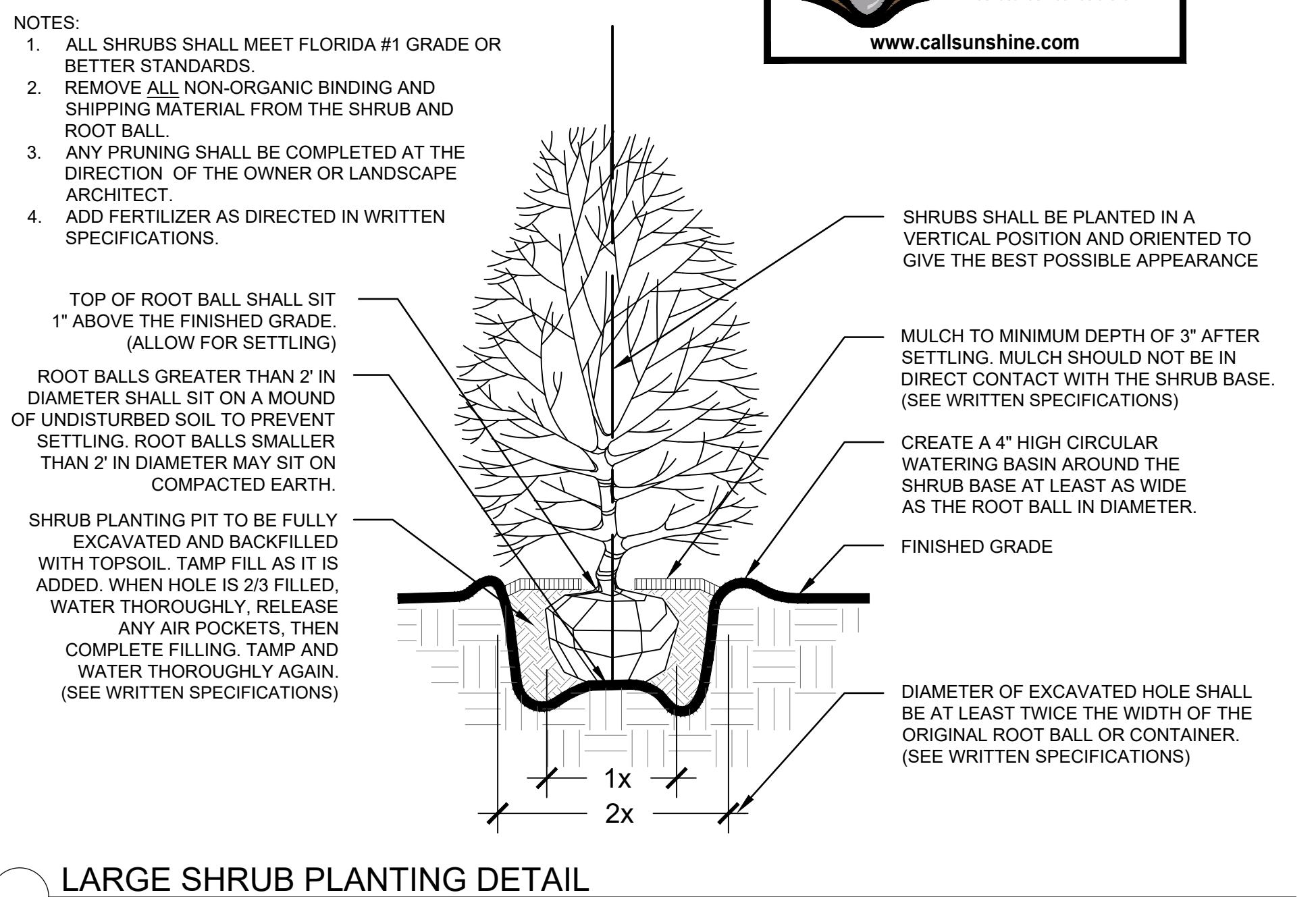
TREE PLANTING DETAIL
NOT TO SCALE



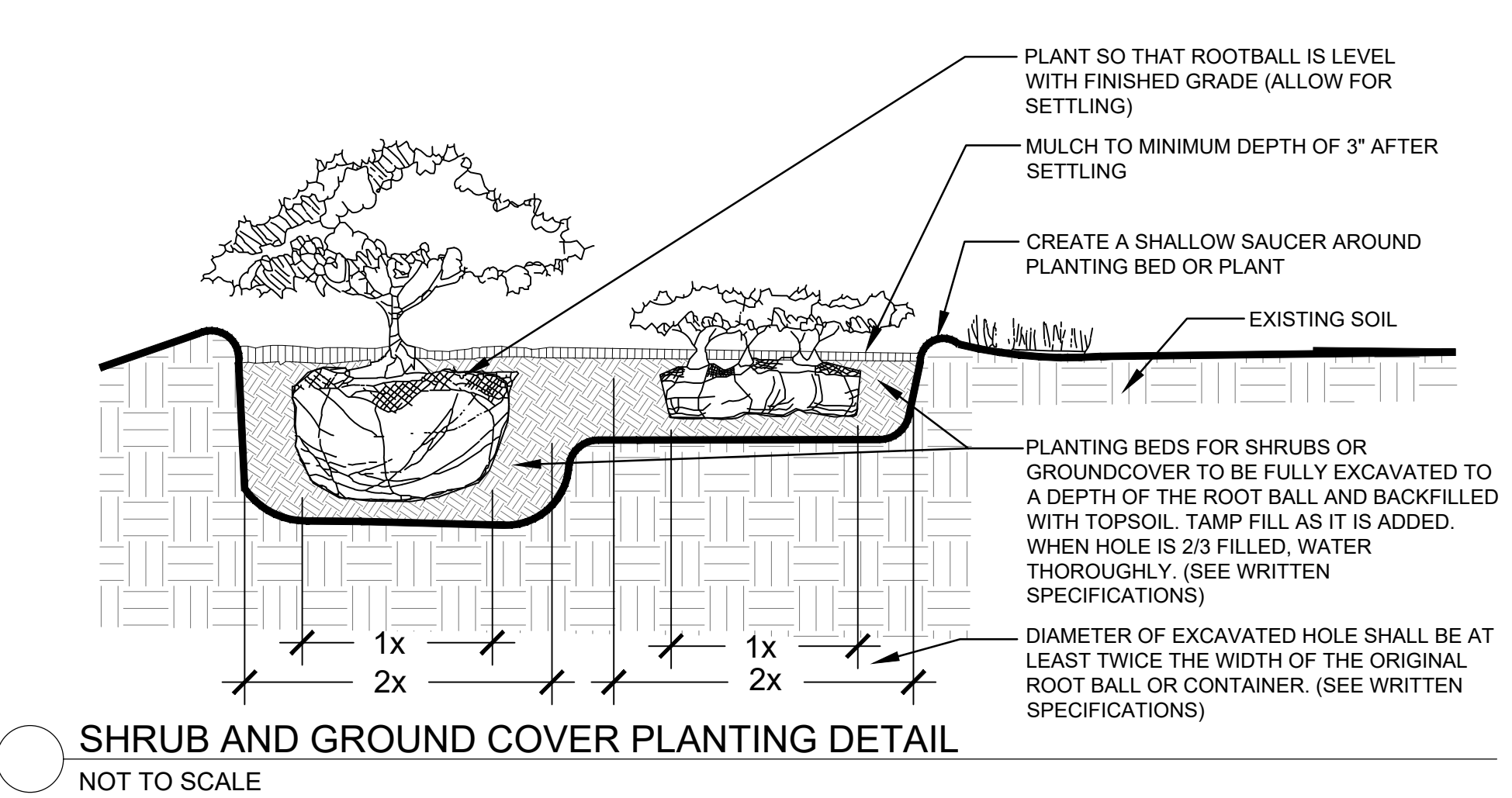
IRREGULAR & MULTI-STEM TREE PLANTING DETAIL
NOT TO SCALE



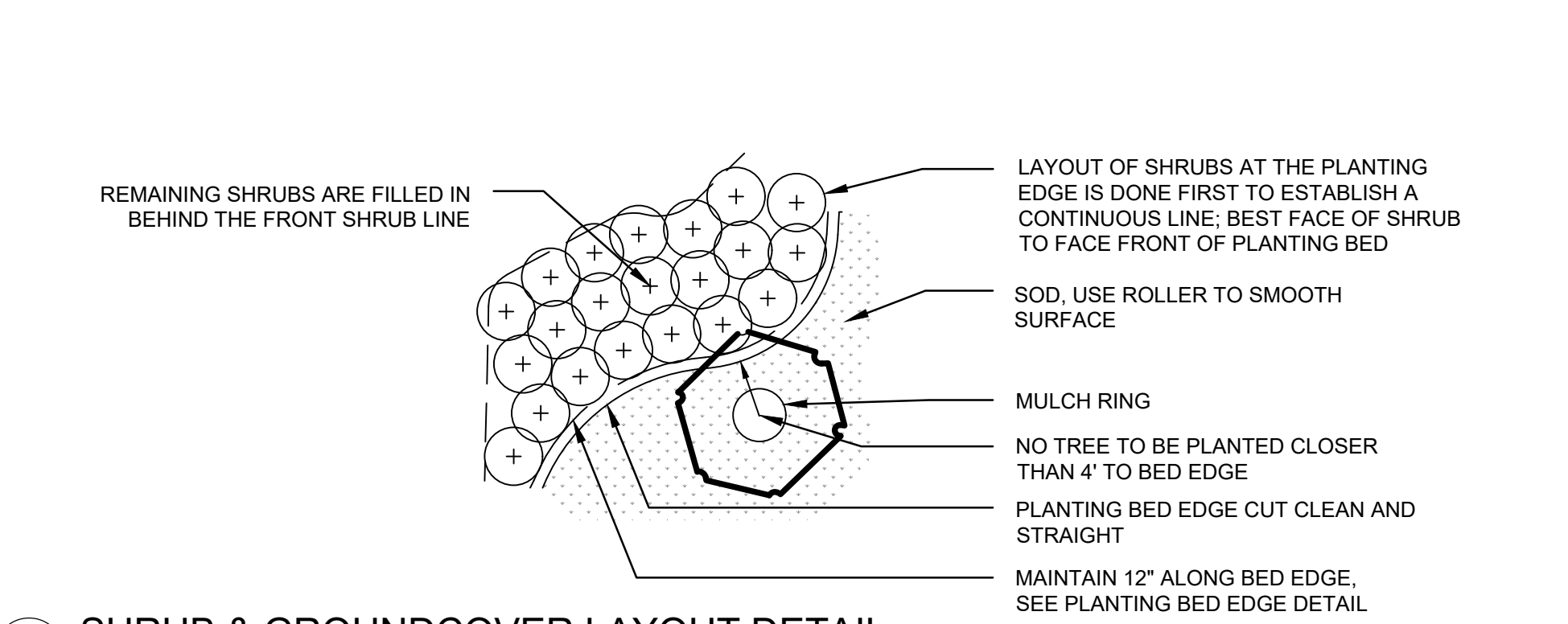
PALM PLANTING DETAIL
NOT TO SCALE



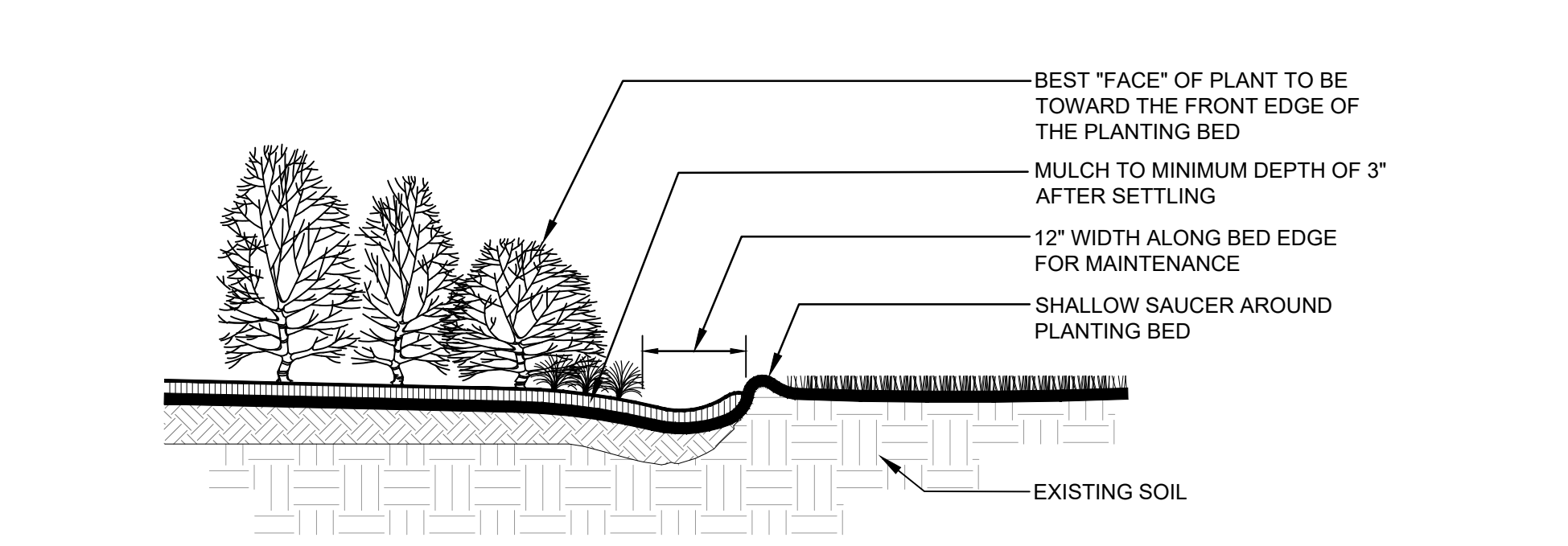
LARGE SHRUB PLANTING DETAIL
NOT TO SCALE



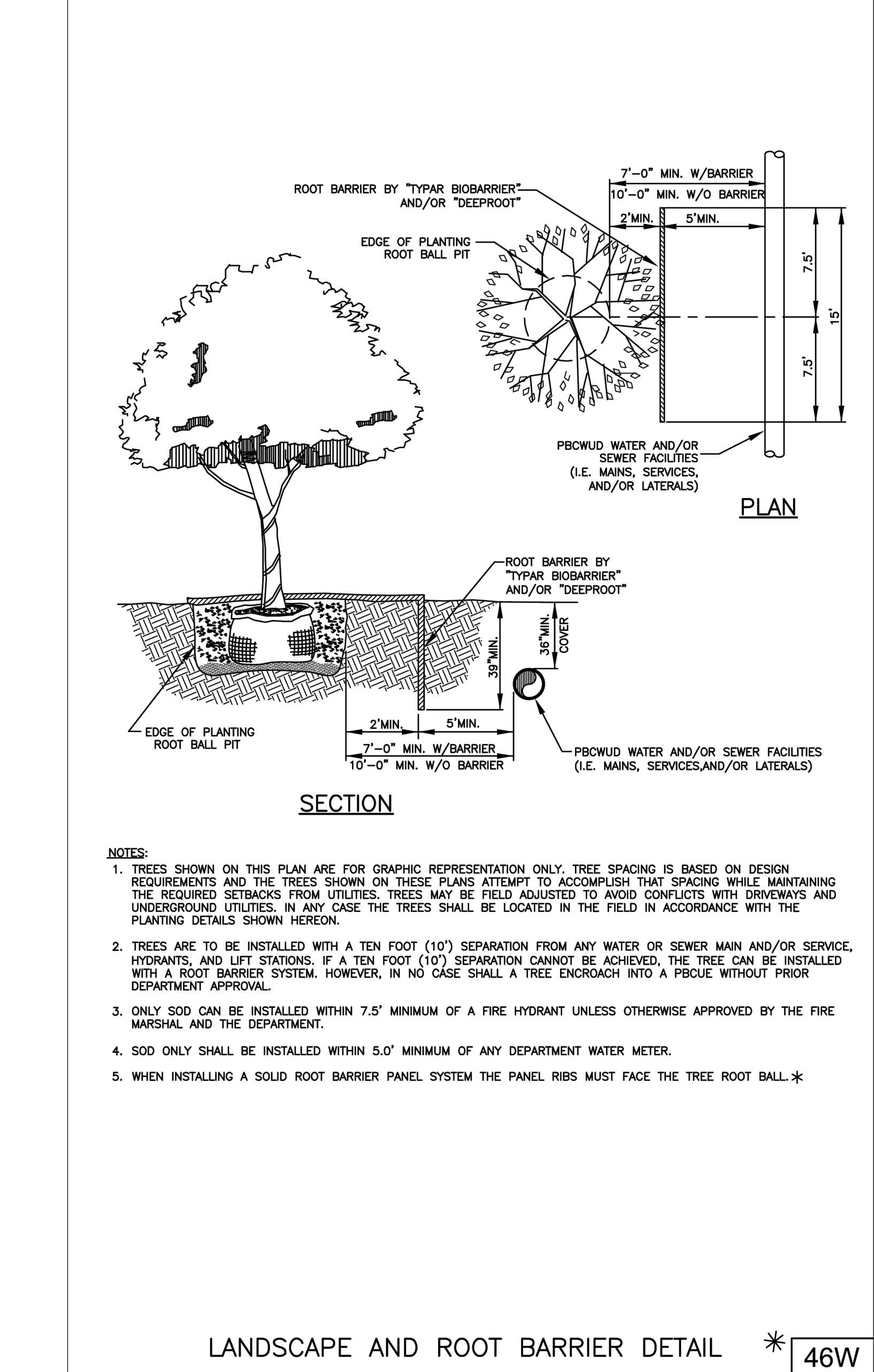
SHRUB AND GROUND COVER PLANTING DETAIL
NOT TO SCALE



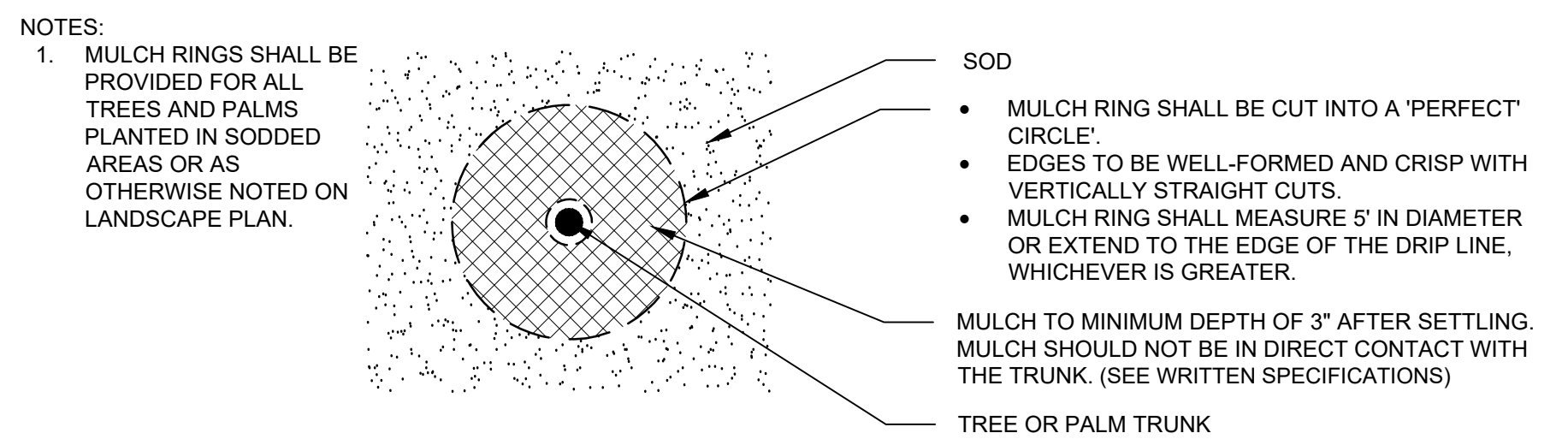
SHRUB & GROUNDCOVER LAYOUT DETAIL
NOT TO SCALE



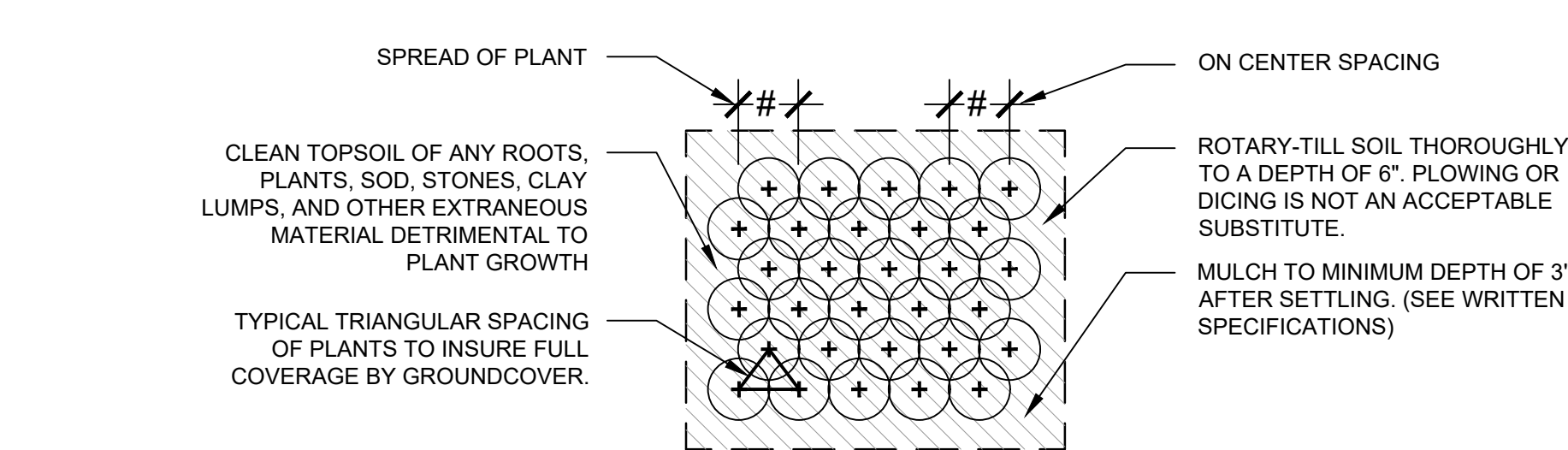
PLANTING BED EDGE DETAIL
NOT TO SCALE



ROOT BARRIER DETAIL
NOT TO SCALE



MULCH RING IN SOD DETAIL
NOT TO SCALE



GROUND COVERS & ROOTED CUTTING PLANTING DETAIL
NOT TO SCALE

urban design studio

Urban Design
Land Planning
Landscape Architecture

610 Clematis Street, Suite CU02
West Palm Beach, FL 33401
561.366.1100 FAX 561.366.1111
www.udsflorida.com
#LA0001739

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The ARC Palm Beach County

Arts Center

Palm Springs, Florida

Planting Details

H:\00851The ARC-Palm Beach County_22-081The ARC - Arts Center_SPR_001DrawingLandscape Plan\2024-08-23_UF_Resubmittal.dwg

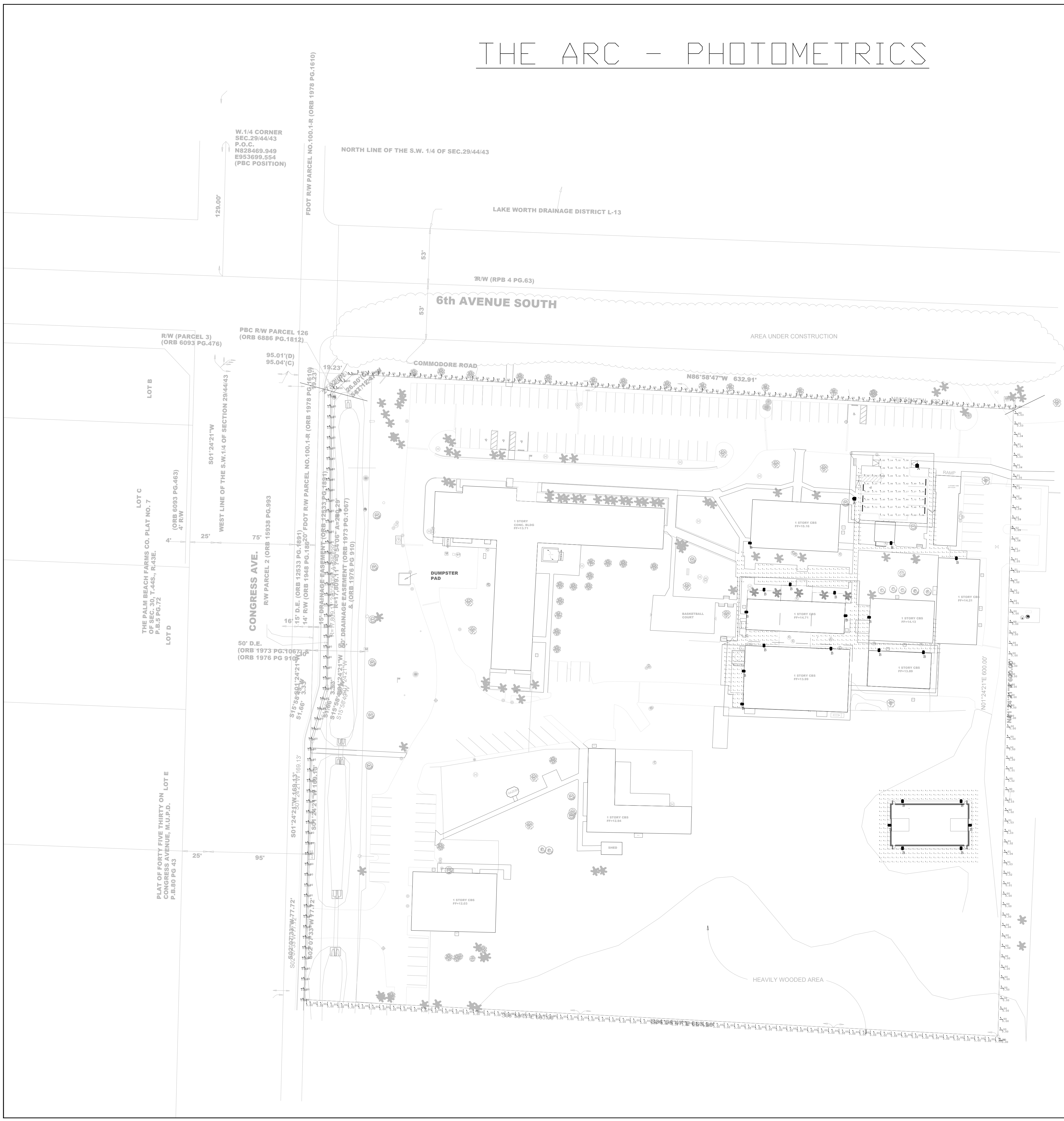
Date: December 2023
Project No.: 22-081.001
Designed By: JEV
Drawn By: JEV
Checked By: NM

Revision Dates:
04-26-2024 SUBMITTAL
07-26-2024 RESUBMITTAL
08-23-2024 RESUBMITTAL

LA-5
of 6

RESUBMITTAL

THE ARC - PHOTOMETRICS



PHOTOMETRIC TABLE

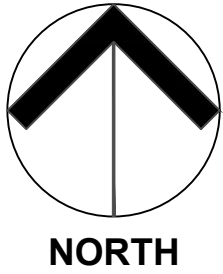
Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Description	LLF	Watts	M.H.	Arm	
	2	A	Single	LUMECON LDS-SAL-80-DB-T4-1-40-MAS-X-X	0.900	80.8	25	1.5	
	21	B	Single	LUMECON LWS-MFC-25-DB-1-40 - REDUCED BY 30% - WALL UNIT	0.630	23.7	13	0	

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	AvgMin	MaxMin
PARKING LOT	Illuminance	Fc	2.04	3.54	1.02	2.00	3.47
PATHWAYS	Illuminance	Fc	1.37	4.54	0.00	N.A.	N.A.
PL - NORTH HORIZONTAL	Illuminance	Fc	0.01	0.00	0.00	N.A.	N.A.
PL - NORTH VERTICAL	Illuminance	Fc	0.04	0.30	0.00	N.A.	N.A.
PL - SOUTH EAST WEST HORIZONTAL	Illuminance	Fc	0.00	0.02	0.00	N.A.	N.A.
PL - SOUTH EAST WEST VERTICAL	Illuminance	Fc	0.01	0.09	0.00	N.A.	N.A.

Luminaire Location Summary					
LumNo	Label	Insertion Point		Z	Orient
		X	Y		
1	A	854	614	25	267.833
2	A	792.5	581	25	357.387
3	B	826	536.5	13	266.232
4	B	891.5	524	13	86.63
5	B	775	491	13	87.49
6	B	732.5	469	13	87.49
7	B	707.5	494	13	87.49
8	B	694	536.5	13	177.807
9	B	680.5	472.5	13	177.728
10	B	707.5	440.5	13	87.516
11	B	771.5	437.5	13	87.516
12	B	860	434	13	87.516
13	B	817.5	436	13	87.516
14	B	785.5	469	13	357.833
15	B	808	467.5	13	177.833
16	B	688	416	13	177.879
17	B	686.5	384.5	13	177.879
18	B	896	291.5	13	90
19	B	896	246.5	13	270
20	B	840	291.5	13	90
21	B	840	246.5	13	270
22	B	827.5	268.5	13	180
23	B	904.5	268.5	13	0

FOR LIGHT INFO, PLEASE CONTACT:
MAINNOR PINO AT LIGHTWORKS, INC.
561-641-5570 / 561-373-9004

SUBSTITUTIONS ARE NOT ALLOWED
WITHOUT THE PRIOR CONSENT OF
THE ENGINEER OF RECORD.



INDEX SHEET

SHEET NO.
PH-01
PH-02
PH-03

DESCRIPTION
INDEX SHEET &
PHOTOMETRIC TABLE
ENLARGED PXP VALUES
POLE AND FIXTURE DETAILS

PROJECT:
THE ARC

DATE
04/24/2024

PROJECT NO.
M24012L

SHEET NUMBER
PH-01

DESCRIPTION:
INDEX SHEET &
PHOTOMETRIC TABLE

SCALE:
NTS

DESIGNED BY:
SB

DRAWN BY:
SB

CHECKED BY:
WP

ELECTRICAL ENGINEER:
WILLIAM E. PINO
FLORIDA P.E. # 32026

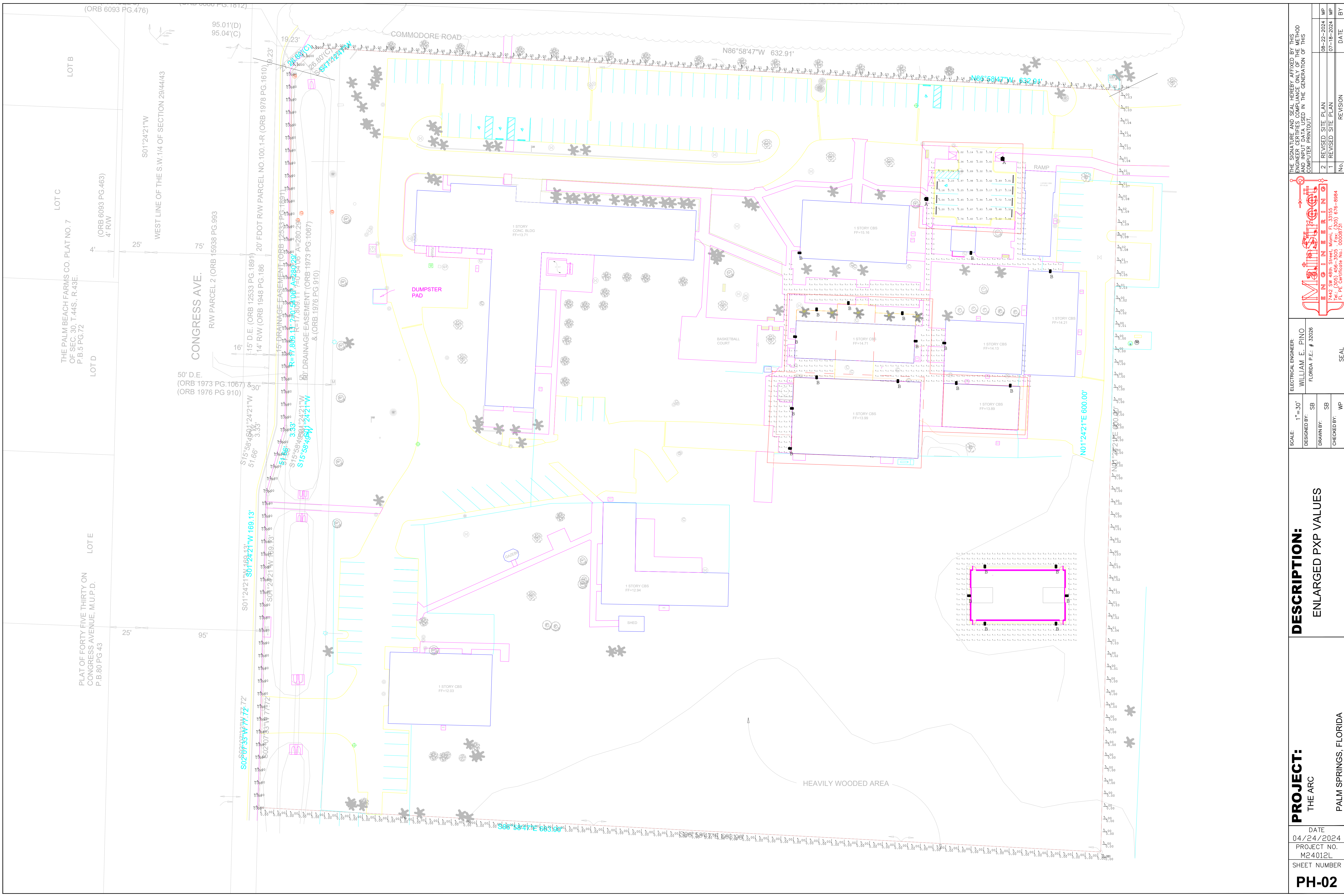
SEAL

THE SIGNATURE AND SEAL HEREBY AFFIXED BY THIS ENGINEER CERTIFIES COMPLIANCE ONLY OF THE METHOD AND INPUT DATA USED IN THE GENERATION OF THIS COMPUTER PRINTOUT.

2 REVERSED SITE PLAN
07-18-2024
MP

1 REVERSED SITE PLAN
07-18-2024
MP

REVISION
DATE
BY



PROJECT:
THE ARC

DATE
04/24/2024

PROJECT NO.
M24012L

SHEET NUMBER
PH-02

DESCRIPTION:
ENLARGED PXP VALUES

SCALE:
1"=30'

DESIGNED BY:
SB

DRAWN BY:
SB

CHECKED BY:
WP

ELECTRICAL ENGINEER:
WILLIAM E. PINO
FLORIDA P.E. # 32026

SEAL

THE SIGNATURE AND SEAL HEREBY AFFIXED BY THIS ENGINEER CERTIFIES COMPLIANCE ONLY OF THE METHOD AND INPUT DATA USED IN THE GENERATION OF THIS COMPUTER PRINTOUT.

1
2

REVISED SITE PLAN
REVISED SITE PLAN

No.

DATE

BY

08-22-2024
07-18-2024

MP
MP

06-08-2024
06-08-2024

MP
MP

TYPE B - FIXTURE DETAIL

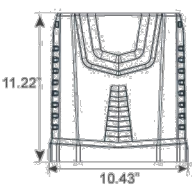


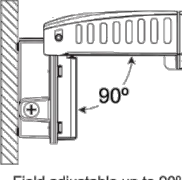

Description

The LWS-MFC medium full cut-off wall pack delivers the illumination performance to replace up to a 250W HED fixture over-cover. The sleek size of the LWS-MFC makes this an energy saving solution for outdoor building facades, general security, storage areas, and entry door applications.

Dimensions & Weights

Model	Width	Height	Depth	Weight
LWS-MFC	10.43"	11.22"	4.67"	10 lbs





LWS - MFC

LED Wall Pack

Catalog Number: **LWS-MFC-25-DB-1-40-PL**

Project: **THE ARC**

Comments: **TYPE B - WALLMOUNT FIXTURE**

Prepared By: **LIGHTWORKS** Date: **04-24-2024**

Technical Specifications

Input Voltage: 120-277V & 347-480V

Mounting: Cast-In Aluminum housing with full cut-off and textured architectural bronze powder coat finish over a chrome chrome conversion coating. 1/2" coin plugs with O-rings for cold and photo-voltaic insulation.

Lens: Tempered Clear Glass Lens with an Impact-resistant Polycarbonate option for vandal resistance in high abuse lighting environments.

Mounting: Cast-In template for mounting directly over a 4" recessed outlet box, or use 1/2" standard mounting.

Effective Projected Area (EPA): 0.41 ft²

Color Temperature: 2200K, 2700K, 3000K, 4000K, and 5000K.

LED Lifetime: All LEDs are rated for a minimum of 100,000 hours of continuous operation at ambient outdoor temperatures from -40°F to 115°F/40°C.

Color Rendering Index (CRI): Minimum of 80 or higher. CRI 90+ available upon request. CRI 90+ not available in 2200K.

Dimming: 0-10V standard dimming capability.

Surge Suppression: 8KV

Battery Back-Up and Battery Back-Up Cold Rated (Optional): The BSU operates the LEDs for a code-compliant 90 minutes when triggered into emergency mode. When AC power is restored, the driver automatically returns to charging mode. The BS and BSQR are UL-recognized component and meets all applicable safety standards. BSQR in cold rated to -20°C.

Lumecon ETD™ System: The enhanced thermal dissipation system engages are thermally bonded to provide maximum thermal dissipation to the exterior of the fixture to ensure long life. To protect the light engine panel from moisture and corrosion, the LED light engine panel is fully coated with a UV resistant acrylic polymer resin that meets MIL and ASTM dielectric standards, is, and PC standards for flammability, moisture resistance and thermal shock.

Certification Data: ETL Listed in US, UL 1598, UL 8750 and CSA 22.2 No. 250. "Full compliance and test documentation is available for TR-121, LM-79, LM-80, ETL Listing in US, Canada and UL 8750."

Design-Lights Conversion® (DLC) Qualified Product: Unless noted, not all versions of the product may be DLC® qualified. For a complete list of Lumecon DLC® Qualified Products visit: www.designlights.org.

Manufacturing Origin: US Manufactured and Assembled.

Buy American Act: The product is assembled in the USA and meets the Buy American(s) government procurement requirements under FAR, DFARS, and DOT regulations.

Warranty: 10 Year LTP performance based warranty. For full warranty terms, please visit our website: www.lumecon.com



LWS - MFC

LED Wall Pack

Ordering Information

LWS-MFC – Options / Ordering Example: LWS-MFC-25-DB-1-40

Wattage	Color	Voltage	Color Temperature
10-10 Watts	DB - Dark Bronze	1- 120-277V	22- 2200K
➤ 25- 25 Watts	CC - Custom Color	2 - 347-480V	27- 2700K
40- 40 Watts			30- 3000K
➤ 60- 60 Watts			40- 4000K
➤			50- 5000K

Options & Accessories

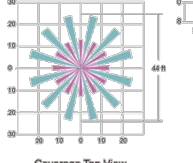
BB - Battery Back-Up 120-277V
BSQR - Battery Back-Up Cold Rated 120-277V
PC1 - 120-277V Button Eye PhotoCell
PC2 - 347-480V Button Eye PhotoCell
OC1 - On/Off
OC2 - Dim/High
SP - 480V Surge Suppression MOV
➤ PL - Polycarbonate Lens

If OCC Sensor Option is selected, mounting height specifications need to be clarified:

- Mounting height and parameter values not specified when ordered. Default mounting height is 6'-0" and sensor height is 20'-0"
- Mounting height between 0' - 10'
- Mounting height between 10' - 20'
- Mounting height over 20'

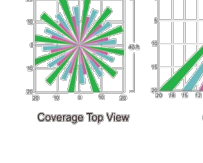
OCC Sensor Patterns

0' - 10' Mounting Height



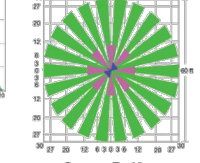
Coverage Top View

10' - 40' Mounting Height



Coverage Top View

40' + Mounting Height



Coverage Top View

Option	Dimmed State (Unoccupied)	High Level (When occupied)	Occupancy Sensor Default Set (up to) Option OC2	Dwell Time (When occupied)	Ramp-up Time (From unoccupied to occupied)	Ramp-up Time (From occupied to unoccupied)
OC2 and OC4	Approx. 20% Output	100% Output	Enabled @ 1.5 FCZ	9 Minutes	Disabled	Disabled

*Note: OC2 and OC4 settings independent of each other. Nighttime dim rates, and occupancy sensor time delay are all configurable by using the WebSetup® App. Any other settings are desired to be set at the facility, please note these changes in Purchase Order.

Performance Data

		2200K	2700K	3000K	4000K	5000K	
Model	Watts	Lumens	Efficiency	Lumens	Efficiency	Lumens	Efficiency
LWS-MFC-10	10W	1,120	112	1,270	127	1,310	131
LWS-MFC-25	25W	2,594	104	2,863	115	2,956	118
LWS-MFC-40	40W	4,754	119	4,229	104	5,085	128
LWS-MFC-60	60W	6,348	104	7,168	117	7,458	122
						7,831	128
						7,974	130

Email: sales@lumecon.com Website: www.lumecon.com Phone: 248-477-5009
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 Note: Specifications are preliminary and are subject to change at any time without notice.
 Please see www.lumecon.com for current specifications and documentation.

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9166 - LWS-MFC-10-10-2200K

TYPE A
ASSEMBLY DETAIL

PH-03	SHEET NUMBER	DATE	PROJECT: THE ARC	DESCRIPTION: POLE AND FIXTURE DETAILS	PALM SPRINGS, FLORIDA	7442 W 48th Street, Miami, FL 33155 (305) 576-8984 FL PE Certificate No.: 00009731 SEAL	THE SIGNATURE AND SEAL HEREBY AFFIRM BY THIS ENGINEER CERTIFIES COMPLIANCE ONLY OF THE METHOD AND INPUT DATA USED IN THE GENERATION OF THIS COMPUTER PRINTOUT. FLORIDA REGISTERED PROFESSIONAL ENGINEER FLORIDA P.E. # 32026	WILLIAM E. PINO	ELECTRICAL ENGINEER:	THE SIGNATURE AND SEAL HEREBY AFFIRM BY THIS ENGINEER CERTIFIES COMPLIANCE ONLY OF THE METHOD AND INPUT DATA USED IN THE GENERATION OF THIS COMPUTER PRINTOUT. FLORIDA REGISTERED PROFESSIONAL ENGINEER FLORIDA P.E. # 32026	2 REVISD SITE PLAN		08-22-2024	MP
	1 REVISD SITE PLAN							07-18-2024	MP					
	No.	REVISION						DATE	BY					

S. CAMPUS ARTS & CULTURE BUILDING

4522 S Congress Ave, Palm Springs, FL 33461

DESIGN DEVELOPMENT
REG PROJECT #:22035
8/23/24



INTERIOR THEATER SPACE, ARTIST RENDITION: NOT TO SCALE

COVER SHEET

Sheet List - Preliminary Design		
Sheet Number	Sheet Name	Sheet Issue Date

A-0.00	COVER SHEET	7/15/24
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CIVIL

Sheet List - Preliminary Design		
Sheet Number	Sheet Name	Sheet Issue Date

C4.00	PRELIMINARY ENGINEERING PLAN	7/15/24
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STRUCTURAL

Sheet List - Preliminary Design		
Sheet Number	Sheet Name	Sheet Issue Date

S-0.01	GENERAL NOTES	7/15/24
S-0.02	LOADING CRITERIA	7/15/24
S-0.03A	CONCRETE GENERAL NOTES & SCHEDULES	7/15/24
S-0.03B	CONCRETE GENERAL NOTES & SCHEDULES	7/15/24
S-0.04	CMU GENERAL NOTES & SCHEDULES	7/15/24
S-0.05	STEEL GENERAL NOTES & SCHEDULES	7/15/24
S-1.01	FOUNDATION PLAN	7/15/24
S-1.03	ROOF FRAMING PLAN	7/15/24
S-3.00	TYPICAL FOUNDATION DETAILS	7/15/24
S-3.10	TYPICAL SLAB-ON-GROUND DETAILS	7/15/24
S-3.11	SLAB-ON-GROUND DETAILS	7/15/24
S-4.00	TYPICAL CMU FOUNDATION DETAILS	7/15/24
S-4.01	TYPICAL CMU DETAILS	7/15/24
S-4.02	TYPICAL CMU DETAILS	7/15/24
S-4.04	TYPICAL CMU & STEEL FRAMING DETAILS	7/15/24
S-5.00	TYPICAL STEEL FOUNDATION DETAILS	7/15/24
S-5.10	TYPICAL STEEL FRAMING DETAILS	7/15/24
S-5.20	TYPICAL STEEL FRAMING AT ROOF DETAILS	7/15/24
S-5.21	TYPICAL STEEL FRAMING AT ROOF DETAILS	7/15/24

ARCHITECTURAL

Sheet List - Preliminary Design		
Sheet Number	Sheet Name	Sheet Issue Date

A-0.10	ARCHITECTURAL INFORMATION	7/15/24
A-0.20	EXISTING SITE PLAN	7/15/24
A-0.30	DEMOLITION SITE PLAN	7/15/24
A-0.40	PROPOSED SITE & PARKING PLAN	7/15/24
A-0.50	PROPOSED SITE PLAN & PHASING	7/15/24
A-0.60	LIFE SAFETY PLAN	7/15/24
A-1.01	EXISTING FLOOR PLAN	7/15/24
A-1.02	DEMOLITION PLAN	7/15/24
A-1.03	PROPOSED FLOOR PLAN	7/15/24
A-1.04	ROOF PLAN	7/15/24
A-1.05	REFLECTED CEILING PLAN	7/15/24
A-1.06	STORAGE BUILDING PLANS	7/15/24
A-2.01	ELEVATIONS	7/15/24
A-3.01	BUILDING SECTIONS	7/15/24
A-4.01	ENLARGED FLOOR PLANS	7/15/24
A-4.02	ENLARGED EXTERIOR ELEVATIONS	7/15/24
A-4.03	ENLARGED INTERIOR ELEVATIONS- KITCHENETTE & LAUNDRY	7/15/24
A-4.04	ENLARGED INTERIOR ELEVATIONS- MENS BATHROOM	7/15/24
A-4.05	ENLARGED INTERIOR ELEVATIONS- WOMENS BATHROOM	7/15/24
A-5.01	WALL TYPES & SCHEDULES	7/15/24
A-5.02	FINISH PLAN	7/15/24
A-6.01	DOOR & WINDOW DETAILS	7/15/24
A-6.02	ROOF DETAILS	7/15/24
A-7.01	RENDERINGS	7/15/24

FIRE PROTECTION

Sheet List - Preliminary Design		
Sheet Number	Sheet Name	Sheet Issue Date

F-0.10	FIRE PROTECTION SYMBOLS LEGEND AND GENERAL NOTES	7/15/24
F-2.01	FIRE PROTECTION PLAN	7/15/24
F-8.01	FIRE PROTECTION DETAILS	7/15/24

PLUMBING

Sheet List - Preliminary Design		
Sheet Number	Sheet Name	Sheet Issue Date

P-0.10	PLUMBING SYMBOLS AND SPECIFICATIONS	7/15/24
P-2.01	PLUMBING FIRST FLOOR PLAN - PROPOSED	7/15/24
P-2.02	PLUMBING FIRST FLOOR PLAN - STORAGE BUILDING	7/15/24
P-7.01	PLUMBING SCHEDULES	7/15/24
P-8.01	PLUMBING DETAILS	7/15/24

MECHANICAL

Sheet List - Preliminary Design		
Sheet Number	Sheet Name	Sheet Issue Date

M-0.10	MECHANICAL SYMBOLS AND SPECIFICATION	7/15/24
M-0.20	MECHANICAL GENERAL NOTES	7/15/24
M-2.01	MECHANICAL FIRST FLOOR PLAN - PROPOSED	7/15/24
M-6.01	MECHANICAL CONTROL DRAWINGS	7/15/24
M-7.01	MECHANICAL SCHEDULES	7/15/24
M-8.01	MECHANICAL DETAILS	7/15/24
M-8.02	MECHANICAL DETAILS	7/15/24

ELECTRICAL

Sheet List - Preliminary Design		
Sheet Number	Sheet Name	Sheet Issue Date

E-0.10	ELECTRICAL SYMBOLS AND SPECIFICATIONS	7/15/24
E-2.01	ELECTRICAL LIGHTING PLAN	7/15/24
E-2.02	ELECTRICAL LIGHTING PLAN	7/15/24
E-2.03	NORMAL PHOTOMETRICS PLAN	7/15/24
E-2.04	EMERGENCY PHOTOMETRICS PLAN	7/15/24
E-2.05	NORMAL & EMERGENCY PHOTOMETRICS PLANS	7/15/24
E-3.01	ELECTRICAL POWER PLAN	7/15/24
E-3.02	ELECTRICAL POWER PLAN - STORAGE BUILDING	7/15/24
E-4.01	ELECTRICAL ENLARGED PLAN	7/15/24
E-5.01	ELECTRICAL ONE-LINE DIAGRAM	7/15/24
E-7.01	ELECTRICAL PANEL SCHEDULES	7/15/24
E-8.01	ELECTRICAL DETAILS	7/15/24
E-8.02	ELECTRICAL DETAILS	7/15/24

OWNER

THE ARC PALM BEACH COUNTY
PAMELA PAYNE, PRESIDENT & CEO
ELLIE MARSHALL, CHIEF OPERATING OFFICER
1201 AUSTRALIAN AVENUE,
RIVIERA BEACH, FL 33404
PHONE: 561-842-3213X110

ARCHITECT

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ALELI DE LA VEGA, ASSOC. AIA, SENIOR PROJECT MANAGER
DOMINIC ARRESTA, AIA, PROJECT MANAGER
120 SOUTH OLIVE AVE, STE#210,
WEST PALM BEACH, FL 33401
PHONE: (561) 659 - 2383

CONSTRUCTION MANAGER

TBD

CIVIL ENGINEER

KIMLEY-HORN
MICHAEL F. SCHWARTZ, P.E., PRINCIPAL
1920 WEKIVA WAY, SUITE 200,
WEST PALM BEACH, FLORIDA, 33411
PHONE: (561) 404 - 7247
EMAIL: MIKE.SCHWARTZ@KIMLEY-HORN.COM

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URBAN DESIGN STUDIO
MARTY R.A. MINOR, PLANNER
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EMAIL: MMINOR@UDSFLORIDA.COM

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JEZERINAC GROUP
WILLIAM RAIOLA, P.E., S.E., PRINCIPAL
480 HIBISCUS STREET, SUITE 107
WEST PALM BEACH, FL 33401
PHONE: (561) 622 - 8585
EMAIL: BRAIOLA@JEZERINACGROUP.COM

MEP,FIRE PROTECTION & PHOTOMETRICS

SGM ENGINEERING
BOBBY SHAHNAMI, P.E., PRESIDENT
JULIAN HARRIS, P.E., PLUMBING & F.P. DEPT. MANAGER
5805 BLUE LAGOON DRIVE, SUITE 285
MIAMI, FL 33126
PHONE: (954) 421 - 1944
EMAIL: BOBBY@SGMENGINEERING.COM

SCOPE OF WORK

WAREHOUSE CONVERSION TO ARTS/CULTURE BUILDING

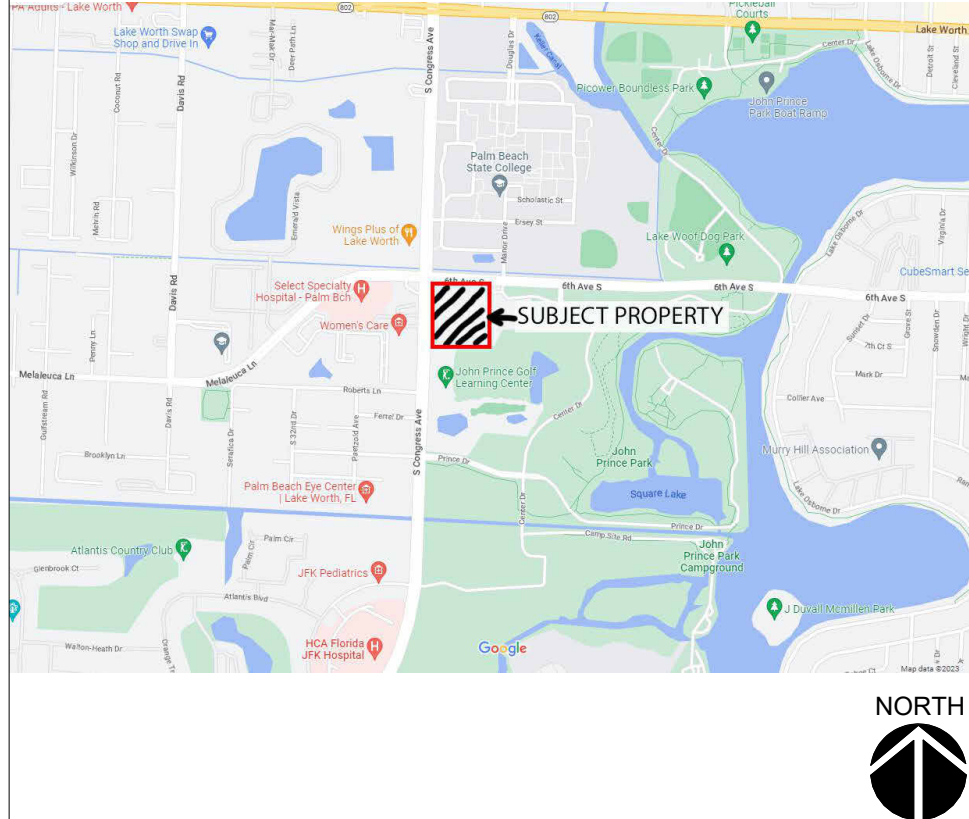
EXTERIOR SCOPE OF WORK:

- 1) NEW CONCRETE WALKWAYS
- 2) RENOVATION OF THE EXTERIOR FaçADE
- 3) LANDSCAPE IMPROVEMENTS

INTERIOR SCOPE OF WORK:

- 1) NEW GATHERING SPACE FOR ARTS & CULTURE ENVIRONMENT/STUDENT UNION
- 2) HARDEN BUILDING AS A HURRICANE SHELTER
TOTAL GROSS SQUARE FOOTAGE- 6,355 SF
PROPOSED STORAGE BUILDING:
1) NEW PRE-FAB METAL STORAGE BUILDING, 3,000 SF

LOCATION MAP



REG
ARCHITECTS
since 1988



Rick Gonzalez, AIA
President

FL License AR0014172
120 South Olive Ave, Ste. 210,
West Palm Beach, FL 33401
P (561) 659-2383
www.regarchitects.com

The Arc.
Palm Beach County

S. CAMPUS ARTS & CULTURE BUILDING

4522 S Congress Ave, Palm Springs, FL 33461

DESIGN DEVELOPMENT

NO. DATE DESCRIPTION

NO.	DATE	DESCRIPTION
-----	------	-------------

DATE	8/23/24
MODELED	DA
CHECKED	MA/REG
PROJECT #	22035
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COVER SHEET

A-0.00

DESIGN DEVELOPMENT



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President
FL License AR0014172
120 South Olive Ave. Ste. 210,
West Palm Beach, FL 33401
P (561) 659-2383
www.regarchitects.com



**S. CAMPUS ARTS & CULTURE
BUILDING**

4522 S Congress Ave, Palm
Springs, FL 33461

DESIGN DEVELOPMENT

NO. DATE DESCRIPTION

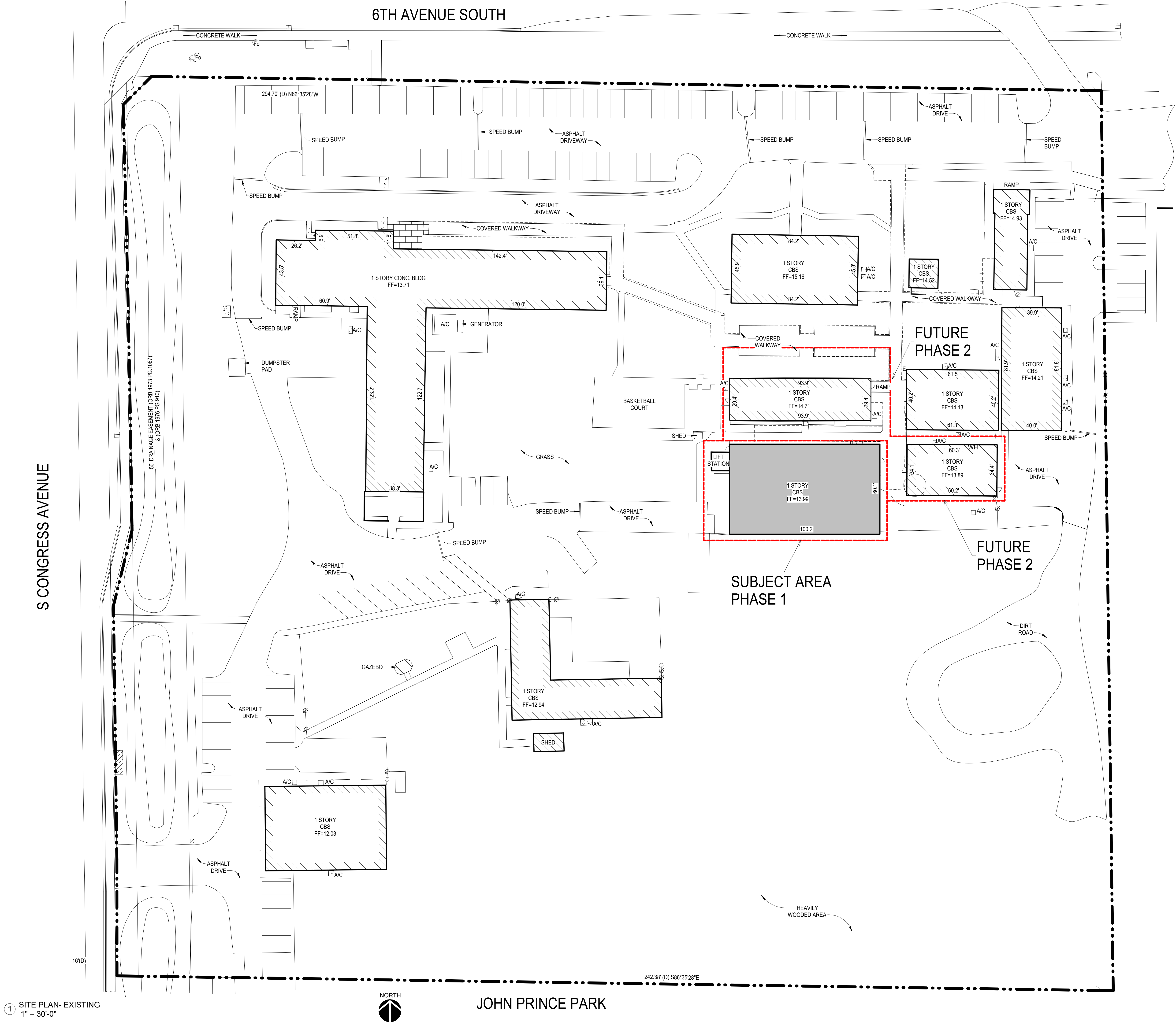
DATE	8/23/24
MODELED	DA
CHECKED	MA/REG
PROJECT #	22035
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EXISTING SITE PLAN

A-0.20

DESIGN DEVELOPMENT





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BUILDING**

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Springs, FL 33461

DESIGN DEVELOPMENT

SITE PLAN LEGEND

	PROPOSED BUILDING AREA
	EXISTING BUILDING AREA TO BE RENOVATED
	EXISTING BUILDING AREA NOT IN SCOPE

PARKING ANALYSIS

SEC. 34-1329. - MINIMUM [PARKING] REQUIREMENTS BY USE.
RETAIL- 1 SPACE PER 200 SF
SOCIAL SERVICES- 1 SPACE PER 200 SF

CALCULATIONS

116 EXISTING SPACES, 7 PROPOSED SPACES

6,010 SF OF RENOVATED BUILDING AREA
345 SF OF NEW BUILDING AREA

$345 \text{ SF} / 200 = 1.7$ (2 SPACES REQUIRED)
7 NEW SPACES PROVIDED

ADA 208.2:
MINIMUM NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES
1-25 SPACES= 1 ADA SPACE
26-50 SPACES= 2 ADA SPACES
51-75 SPACES= 3 ADA SPACES
76-100 SPACES= 4 ADA SPACES
101-150 SPACES= 5 ADA SPACES
151-200 SPACES= 6 ADA SPACES
201-300 SPACES= 7 ADA SPACES

1 NEW ADA SPACE PROVIDED

REFER TO CIVIL/LANDSCAPE
SITE PLAN BY OTHERS.

NO. DATE DESCRIPTION

NO.	DATE	DESCRIPTION

DATE 8/23/24

MODELED DA

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PROPOSED SITE & PARKING
PLAN

A-0.40

DESIGN DEVELOPMENT

S CONGRESS AVENUE

6TH AVENUE SOUTH

JOHN PRINCE PARK

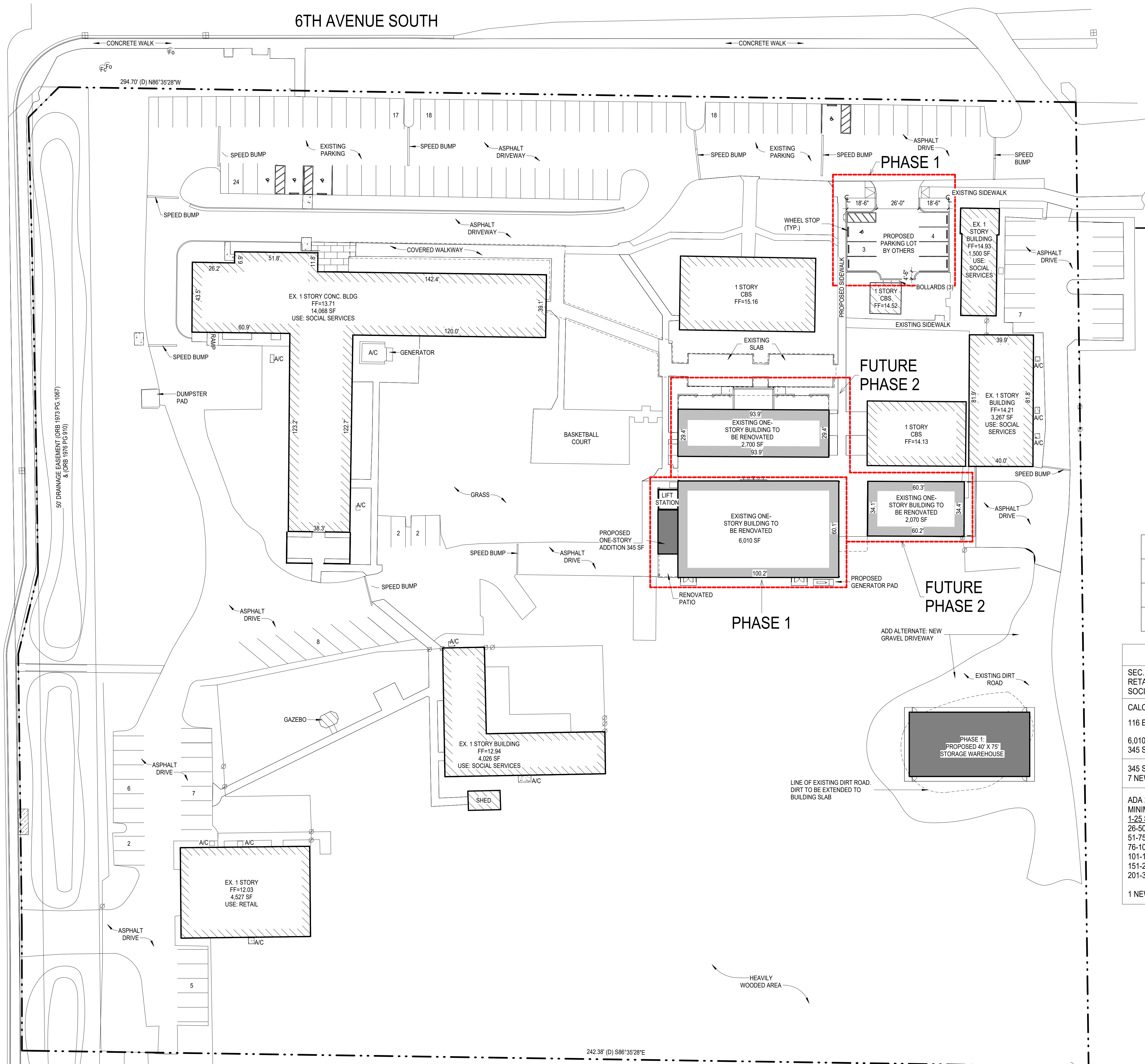
1 SITE PLAN- PROPOSED PARKING
1" = 30'-0"



16'(D)

242.38' (D) S86°35'28"E

50' DRAINAGE EASEMENT (08B 1973 PG. 087)
& (08B 1976 PG 310)





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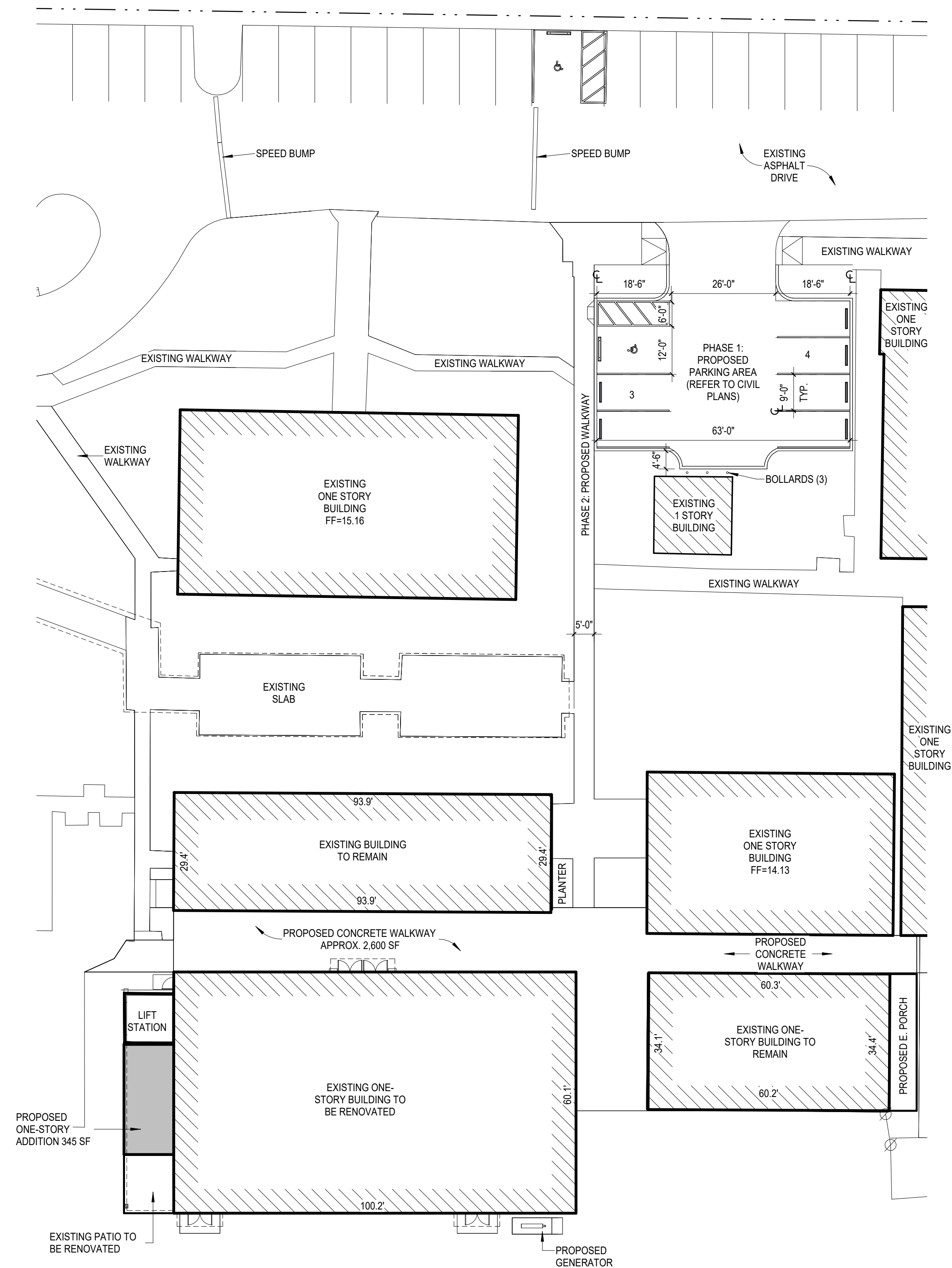
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PROPOSED SITE PLAN &
PHASING

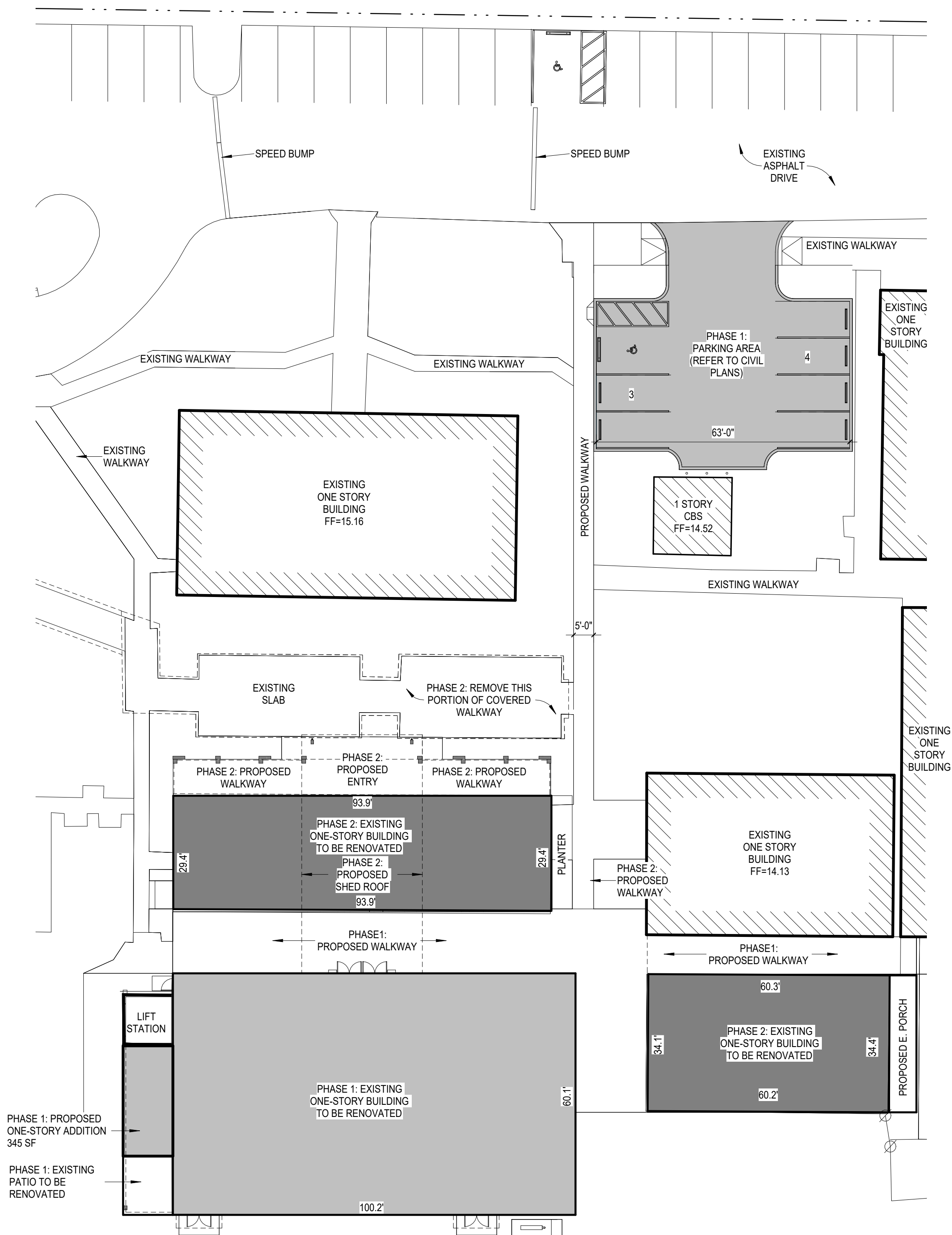
A-0.50

DESIGN DEVELOPMENT



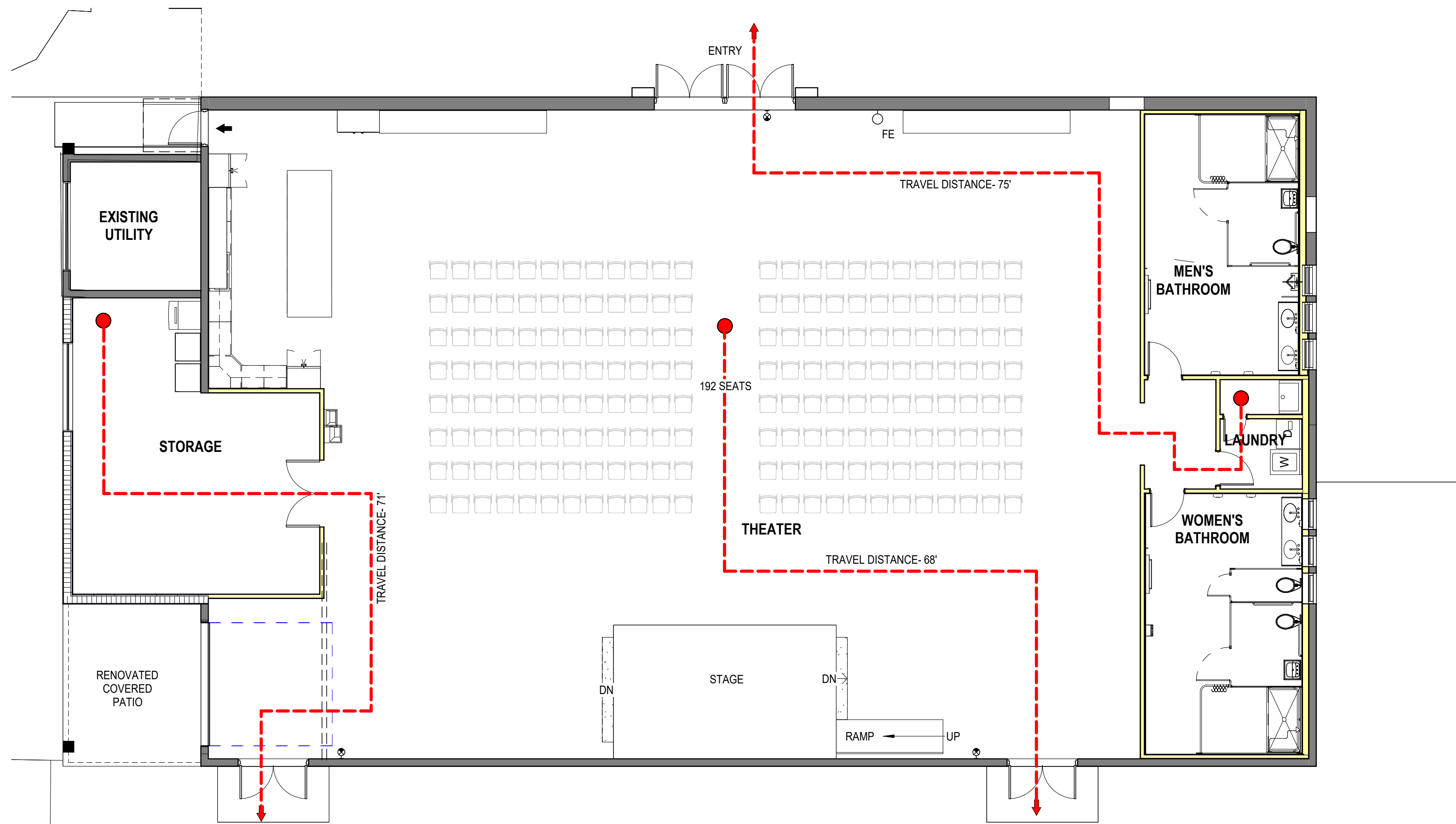
① ARCHITECTURAL SITE PLAN- PHASE 1
1" = 20'-0"

REFER TO CIVIL/LANDSCAPE
SITE PLAN BY OTHERS.



② SITE PLAN- PHASING
1" = 20'-0"

REFER TO CIVIL/LANDSCAPE
SITE PLAN BY OTHERS.



1 FIRST FLOOR PLAN- LIFE SAFETY
1/8" = 1'-0"

LIFE SAFETY KEY			
	MEANS OF EGRESS (EXIT DISCHARGE)		2-HR ASSEMBLY
	PATH OF TRAVEL		1-HR ASSEMBLY
	WALL MOUNTED FIRE EXTINGUISHER CABINET		WALL MOUNTED FIRE EXTINGUISHER
			EXIT SIGN - WALL MOUNTED
			EXIT SIGN - CEILING MOUNTED

OCCUPANCY/PLUMBING CALCULATIONS		
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT (FBC TABLE 1004.5) STAGES & PLATFORMS- 15 NET ASSEMBLY W/FIXED SEATS- SEAT COUNT ASSEMBLY- UNCONCENTRATED 15 NET STORAGE - 345 GROSS		
OCCUPANCY LOAD STAGES & PLATFORMS- 240 SF= 16 OCCUPANTS ASSEMBLY (1500 SF)= 100 OCCUPANTS		
TOTAL: 116 OCCUPANTS / TOTAL 6,355 SQFT		
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (FPC TABLE 403.1) ASSEMBLY- AUDITORIUMS MALE- 1 WC PER 125, 1 LAVATORY PER 200 FEMALE- 1 WC PER 65, 1 LAVATORY PER 200 DRINKING FOUNTAIN- 1 PER 500 1 SERVICE SINK		
116 TOTAL OCCUPANTS MALE- 1 WC & 1 LAVATORY REQUIRED FEMALE- 1 WC, 1 LAVATORY REQUIRED 1 DRINKING FOUNTAIN REQUIRED 1 SERVICE SINK REQUIRED		
STORM SHELTER PLUMBING CALCULATIONS		
PER FBC CHAPTER 4, STORM SHELTERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ICC 500. CALCULATING THE USABLE FLOOR AREA ALLOWS A DEDUCTION- 50% FOR CONCENTRATED FURNISHINGS, 35% FOR UNCONCENTRATED FURNISHINGS, AND 15% FOR OPEN PLAN FURNISHINGS. SECTION 502.3 & SECTION 5.2.4.1 USABLE FLOOR AREA- 4,570 SF. A 35% REDUCTION (UNCONCENTRATED FURNISHINGS)- 2,971 SQFT HURRICANE SHELTERS REQUIRE 20SQFT OF USABLE FLOOR AREA FOR OCCUPANTS SEATED, STANDING, OR IN A WHEELCHAIR. 35% REDUCTION EQUATES TO 149 OCCUPANTS A HURRICANE SHELTER WITH MORE THAN 50 OCCUPANTS REQUIRES: 1 WATER CLOSET PER 50 OCCUPANTS 1 LAVATORY PER 100 OCCUPANTS. 3 WATER CLOSETS REQUIRED 2 LAVATORIES REQUIRED		
CODE RESEARCH AND TABULATION - PROFESSIONAL SERVICES		
APPLICABLE BUILDING CODE: FLORIDA BUILDING CODE - EIGHTH EDITION 2023 - INCLUDING MECHANICAL, ELECTRICAL, PLUMBING, & ACCESSIBILITY		
OCCUPANCY - SECTION 304.1		GROUP A-3 - ASSEMBLY
TYPE OF CONSTRUCTION - TABLE 601		TYPE III B SPRINKLERED
	ALLOWED	PROVIDED
MAXIMUM AREA - TABLE 506.2	38,000 SF	6,355 GSF
MAXIMUM HEIGHT - TABLE 504.3A	75'	17'
MAXIMUM NO. OF STORIES - TABLE 504.4	3-STORY	1-STORY
FIRE PROTECTION OF STRUCTURAL ELEMENTS TYPE IIIB CONSTRUCTION PER FBC 2023 TABLE 601)	REQUIRED RATING	PROVIDED RATING
	0 HOUR	0 HOUR
OCCUPANCY LOADS TABLE - FBC 2023 1004.1		
OCCUPANCY GROUP	OCCUPANTS	PER TABLE 1004.1.2
A-3	(1500 GSF / 15NET)= 100	15 NET / OCC.
EGRESS & TRAVEL DISTANCE - FBC 2023 TABLES 1014.3 & 1017.2		
COMMON PATH OF EGRESS TRAVEL (TABLE 1006.2)	75'	
EXIT ACCESS TRAVEL DISTANCE (TABLE 1017.2)	250'	
MEANS OF EGRESS		
	ASSEMBLY (A-3)	
	Required	Provided
OTHER EGRESS COMPONENTS 1005.3.2	32" MIN	36" MIN
MAX COMMON PATH OF TRAVEL Table 1006.2.1	75' MAX	52'
NUMBER OF EXITS Table 1006.3.2	2 MIN	5
SIZE OF DOORS 1010.1.1	32"	36"
MAX TRAVEL DISTANCE Table 1017.2	250'	71'
MIN. CORRIDOR WIDTH Table 1020.2	44"	N/A
MAX DEAD END Table 1020.4	N/A	N/A
FLORIDA FIRE PREVENTION CODE		
BASED ON FLORIDA FIRE PREVENTION CODE (7TH EDITION)		
OCCUPANCY - SECTION 6.1.10	ASSEMBLY (A-3)	
	Req'd	Provided
MAX COMMON PATH OF TRAVEL NFPA Table A.7.6	75'	52'
MAX DEAD END NFPA Table A.7.6	N/A	N/A
MAX TRAVEL DISTANCE FBC Table A.7.6	250'	48'
NOTES: BUILDING IS SPRINKLERED		

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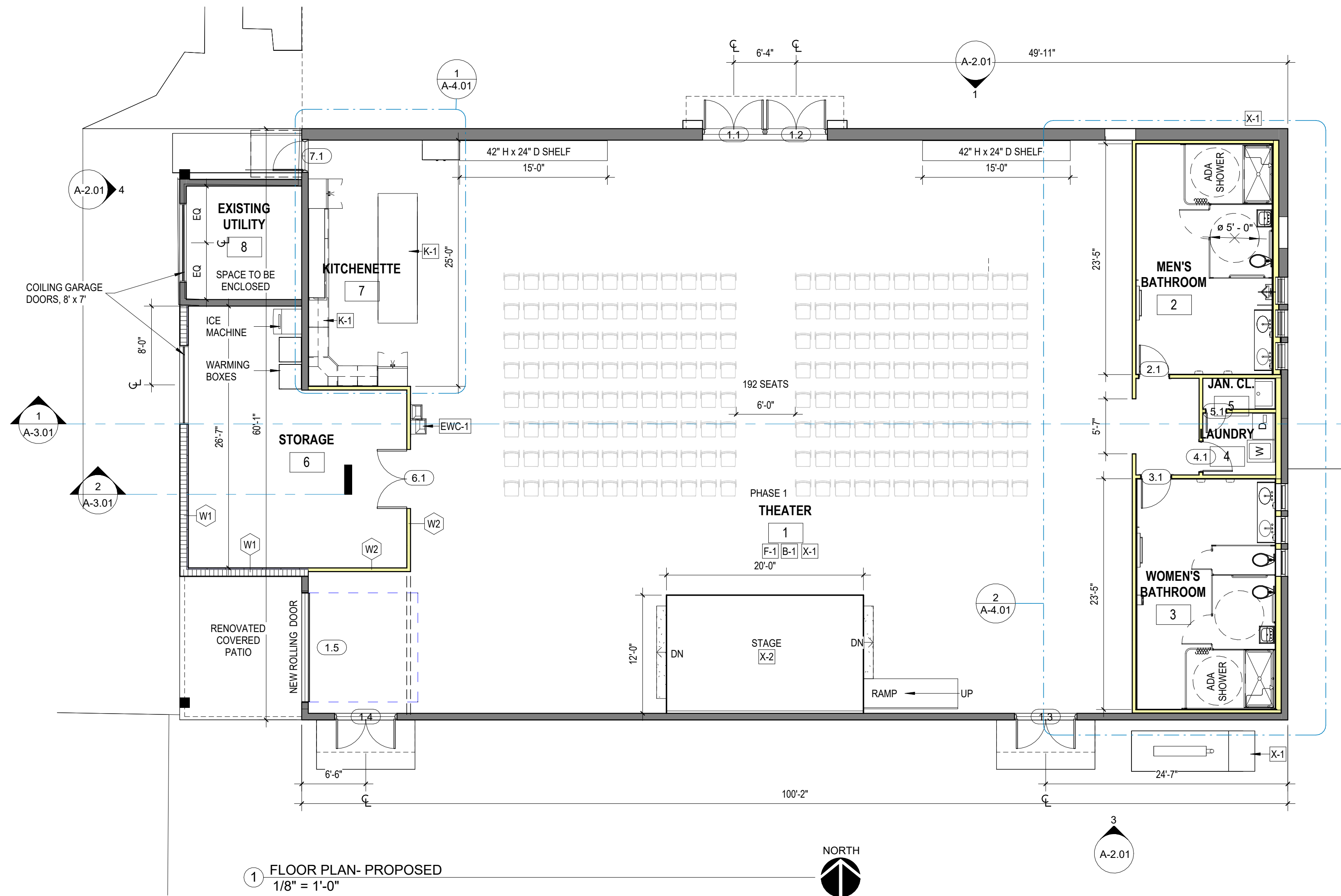
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DESIGN DEVELOPMENT

LIFE SAFETY PLAN

A-0.60



FLOOR PLAN LEGEND

- EXISTING CMU WALL TO BE INSULATED & FINISHED, REFER TO SCHEDULE
 - NEW EXTERIOR CMU WALL, REFER TO SCHEDULE
 - NEW INSULATED PARTITION WALL, REFER TO SCHEDULE
- NOTE: REFER TO WALL TYPES FOR DETAILS

FLOOR PLAN SCOPE OF WORK

FLOORS	
F-1	EXISTING FLOORING MATERIAL IN ALL EXISTING BUILDINGS TO BE REMOVED DOWN TO SUBSTRATE, INCLUDING ALL ASSOCIATED ADHESIVES AND/OR SETTING MATERIALS. CLEAN AND PREPARE SUBSTRATE SURFACE AS REQUIRED. PROVIDE NEW FLOORING. SEE FINISH SCHEDULE.
BASE	
B-1	EXISTING WALL BASE MATERIAL TO BE REMOVED, INCLUDING ALL ASSOCIATED ADHESIVES AND/OR SETTING MATERIALS. CLEAN, REPAIR/PATCH, AND PREPARE SUBSTRATE SURFACE AS REQUIRED. PROVIDE NEW 6" WALL BASE. SEE FINISH SCHEDULE.
WINDOWS	
W-1	INSTALL NEW IMPACT RESISTANT WINDOW SYSTEMS THROUGHOUT, REFER TO SCHEDULE
DOORS	
DR-1	INSTALL NEW DOOR, PAINT NEW DOOR & FRAME. PROVIDE NEW HARDWARE (CLOSER, HINGES, LEVER/LOCK SET). REFER TO TAGS & SCHEDULE.
ELECTRIC WATER COOLER	
EWC-1	BI-LEVEL ADA WATER BOTTLE REFILLING STATION AND WATER COOLER, REFRIG- SEE PLUMBING PLAN
NOTES: 1. SURROUNDING AREA TO MATCH EXISTING CONDITIONS. PATCH AND REPAIR WALLS AS REQUIRED. 2. REFER TO ARCHITECTURAL INFORMATION FOR MOUNTING HEIGHTS, UNLESS SPECIFIED OTHERWISE.	
KITCHENETTE	
K-1	INSTALL NEW MDF KITCHENETTE CASEWORK.
MISCELLANEOUS	
X-1	REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION PLANS FOR ADDITIONAL SCOPE OF WORK.
X-2	CONFIRM REQUIREMENTS FOR DEMOUNTABLE/PORTABLE STAGE WITH OWNER.

NO. DATE DESCRIPTION

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DATE 8/23/24

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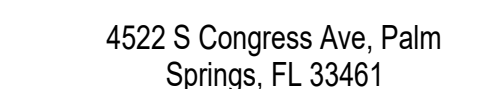
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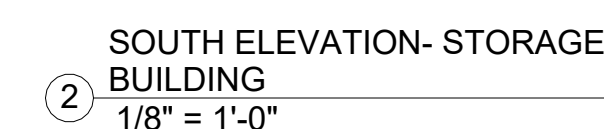
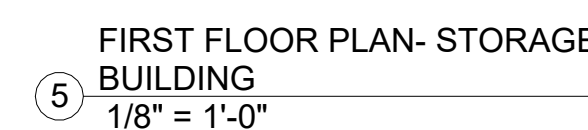
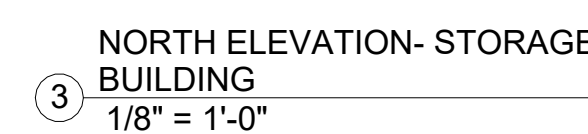
PROPOSED FLOOR PLAN

DESIGN DEVELOPMENT

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DESIGN DEVELOPMENT



REFLECTED CEILING PLAN- STORAGE
BUILDING
6 $1/8" = 1'-0"$

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STORAGE BUILDING PLANS

DESIGN DEVELOPMENT

DESIGN A-1.06

TRAFFIC IMPACT STUDY

THE ARC – ARTS CENTER PALM SPRINGS, FL



December 18, 2023

Kimley-Horn Project #241110000

TRAFFIC IMPACT STUDY

THE ARC – ARTS CENTER

PALM SPRINGS, FL

Prepared by:
Kimley-Horn and Associates, Inc.
West Palm Beach, Florida



Project # 241110000
December 18, 2023
Kimley-Horn and Associates, Inc.
477 South Rosemary Avenue, Suite 215
West Palm Beach, FL 33401
561-840-0848 TEL

Christopher W. Heggen, P.E.
Florida Registration Number 58636

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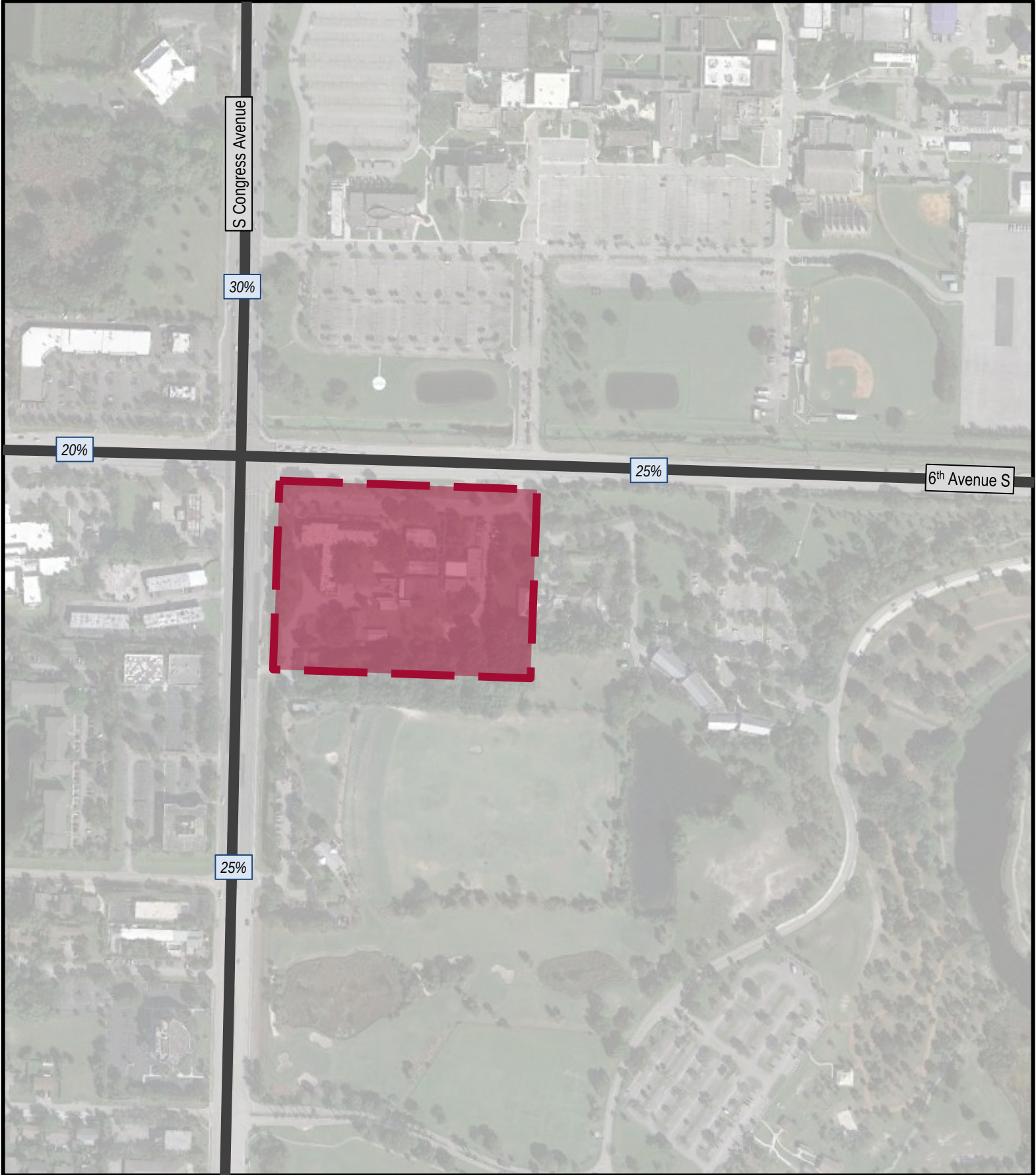
INTRODUCTION

Kimley-Horn and Associates, Inc has been retained to prepare a traffic impact analysis for a site located on the southeast corner of Melaleuca Lane & Congress Avenue, in Palm Springs, Florida. **Figure 1** illustrates the location of the proposed redevelopment. The existing site consists of multiple office buildings, a warehouse, and retail use. It is proposed that the existing warehouse would be renovated and become a theater, and auditorium. The theater would have a capacity of 160 seats.

The Parcel Control Number (PCN) for the site is: 70-43-44-29-00-003-0010.

PCN information and a site plan are included in *Appendix A*.

The buildout year analyzed for the site was 2028. This analysis was conducted in accordance with the requirements of the current countywide Traffic Performance Standards (TPS) ordinance of Palm Beach County as defined in Article 12 of the Unified Land Development Code (ULDC). The following report documents the analyses undertaken and finding of the traffic impact evaluation for this site.

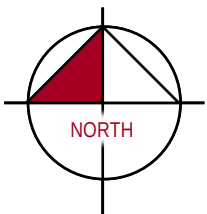


LEGEND

 Site Location

FIGURE 1

The Arc PBC
KH# 241110000
Site Location



PROJECT TRAFFIC

Project traffic used in this analysis is defined as the vehicles trips expected to be generated by the project, and the distribution and assignment of that traffic over the study roadway network.

Existing and Proposed Land Uses

The following **Table 1** show the existing and proposed uses on site and their respective intensities.

Table 1: Existing & Proposed Uses

Existing Use	Intensity	Unit	Proposed Use	Intensity	Unit
Office	34.38	ksf	Office	34	ksf
Warehouse	6.01	ksf	Theater	160	seats
Strip Retail Plaza	4.53	ksf	Strip Retail Plaza	4.53	ksf

Trip Generation

A trip generation determination was prepared to determine the potential traffic related impacts for the proposed development. The trip generation potential of the development was calculated based upon the trip generation rates and equations provided by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 11th Edition*, **Table 2** summarizes the trip generation calculations for the development.

Table 2: Weekday Trip Generation Calculation

Land Use	Intensity		Daily Trips	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Existing Scenario >5 Years									
General Office (10k-250k)	34.38	ksf	373	52	46	6	50	9	41
Warehouse	6.01	ksf	10	1	1	0	1	0	1
Strip Retail Plaza (<40k)	4.53	ksf	246	11	7	4	30	15	15
		Subtotal	629	64	54	10	81	24	57
Internal Capture	% Daily	% AM	% PM						
General Office (10k-250k)	11.8%	5.8%	2.0%	44	3	1	2	1	1
Strip Retail Plaza (<40k)	17.9%	27.3%	3.3%	44	3	2	1	1	0
		Subtotal	88	6	3	3	2	1	1
Pass-By Capture									
General Office (10k-250k)		10.0%	33	5	5	0	5	1	4
Warehouse		10.0%	1	0	0	0	0	0	0
Strip Retail Plaza (<40k)		63.0%	127	5	3	2	18	9	9
		Subtotal	161	10	8	2	23	10	13
Driveway Volumes			541	58	51	7	79	23	56
Net New External Trips			380	48	43	5	56	13	43
Proposed Scenario									
General Office (10k-250k)	34.00	ksf	369	52	46	6	49	8	41
Strip Retail Plaza (<40k)	4.53	ksf	246	11	7	4	30	15	15
Movie Theater	160	Seats	282	10	5	5	13	6	7
		Subtotal	897	73	58	15	92	29	63
Internal Capture	% Daily	% AM	% PM						
General Office (10k-250k)	12.2%	5.8%	2.0%	45	3	1	2	1	1
Strip Retail Plaza (<40k)	19.5%	27.3%	10.0%	48	3	2	1	3	2
Movie Theater	1.8%	0.0%	15.4%	5	0	0	2	1	1
		Subtotal	98	6	3	3	6	3	3
Pass-By Capture									
General Office (10k-250k)		10.0%	32	5	5	0	5	1	4
Strip Retail Plaza (<40k)		63.0%	125	5	3	2	17	8	9
Movie Theater		0.0%	0	0	0	0	0	0	0
		Subtotal	157	10	8	2	22	9	13
Driveway Volumes			799	67	55	12	86	26	60
Net New External Trips			642	57	47	10	64	17	47
Proposed Net External Trips-Existing Net New External Trips			262	9	4	5	8	4	4
Radius of Development Influence:			Directly Accessed Links						
Land Use	Daily		AM Peak Hour			PM Peak Hour		Pass By	
General Office (10k-250k)	10.84 trips/ksf		1.52 trips/ksf (88% in, 12% out)			1.44 trips/ksf (17% in, 83% out)		10.0%	
Strip Retail Plaza (<40k)	54.45 trips/ksf		2.36 trips/ksf (60% in, 40% out)			6.59 trips/ksf (50% in, 50% out)		63.0%	
Movie Theater*	1.76 trips/Seats		0.06 trips/Seats (50% in, 50% out)			0.08 trips/Seats (44% in, 56% out)		0.0%	
Warehouse	1.71 trips/ksf		0.17 trips/ksf (77% in, 23% out)			0.18 trips/ksf (28% in, 72% out)		10.0%	

*No AM adjacent street peak hour rate provided in ITE 10th or 11th edition, therefore used AM peak hour of generator rate from ITE 11th edition.

As shown in the table, the proposed development will generate 262 net new external daily trips, 9 net new external AM peak hour trips (+4 inbound, +5 outbound), and 8 net new external PM peak hour trips (+4 inbound, +4 outbound).

Traffic Distribution and Assignment

Traffic Distribution is the pairing of trip ends from the subject site with other land uses in the area. These trips were assigned to the surrounding roadways based upon a review of the roadway network proposed in the in place at the time of buildout and its travel time characteristics.

Figure 1 also illustrates the project traffic assignment to the surrounding roadway network with the project development.

TEST 1 ANALYSIS

An analysis was undertaken on all links included in the Palm Beach County Thoroughfare Map within the directly-accessed-links radius of development influence to determine the roadway links that are significantly impacted under Test 1 criteria. Net new external project traffic was assigned to all the thoroughfare roadway links within the radius of development influence. Per Palm Beach County standards, all the links on which the project impact is greater than 1% of the level of service (LOS) D generalized service volume are considered significantly impacted links.

Table 3 and **Table 4** summarizes the Test 1 AM and PM peak hour significance analyses, respectively. As illustrated in the table, none of the links are projected to be significantly impacted under Test 1 standards. Therefore, no further analysis is required.

Table 3 AM Peak Hour Significance Analysis

ROADWAY	FROM	TO	EXISTING NUMBER OF LANES	LOS D GENERAL SVC. VOLUME	PROJECT % ASSIGNMENT	NB/EB IN/OUT?	PROJECT TRIPS					
							AM PEAK HOUR					
							TRIPS		% IMPACT			
							NB/EB	SB/WB	NB/EB	Sig?	SB/WB	Sig?
Congress Avenue	Lantana Road	Project Driveway 2	6LD	2,940	25%	i	1	1	0.03%	No	0.03%	No
Congress Avenue	Project Driveway 2	Melaleuca Lane	6LD	2,940	55%	o	3	2	0.10%	No	0.07%	No
Congress Avenue	Melaleuca Lane	Lake Worth Road	6LD	2,680	30%	o	2	1	0.07%	No	0.04%	No
Melaleuca Lane	Davis Road	Congress Avenue	5L	1,960	20%	i	1	1	0.05%	No	0.05%	No
Melaleuca Lane	Congress Avenue	Project Driveway 1	4LD	1,960	50%	i	2	3	0.10%	No	0.15%	No
Melaleuca Lane	Project Driveway 1	I-95 West	4LD	1,960	25%	o	1	1	0.05%	No	0.05%	No

Table 4: PM Peak Hour Significance Analysis

ROADWAY	FROM	TO	EXISTING NUMBER OF LANES	LOS D GENERAL SVC. VOLUME	PROJECT % ASSIGNMENT	NB/EB IN/OUT?	PROJECT TRIPS					
							PM PEAK HOUR					
							TRIPS		% IMPACT			
							NB/EB	SB/WB	NB/EB	Sig?	SB/WB	Sig?
Congress Avenue	Lantana Road	Project Driveway 2	6LD	2,940	25%	i	1	1	0.03%	No	0.03%	No
Congress Avenue	Project Driveway 2	Melaleuca Lane	6LD	2,940	55%	o	2	2	0.07%	No	0.07%	No
Congress Avenue	Melaleuca Lane	Lake Worth Road	6LD	2,680	30%	o	1	1	0.04%	No	0.04%	No
Melaleuca Lane	Davis Road	Congress Avenue	5L	1,960	20%	i	1	1	0.05%	No	0.05%	No
Melaleuca Lane	Congress Avenue	Project Driveway 1	4LD	1,960	50%	i	2	2	0.10%	No	0.10%	No
Melaleuca Lane	Project Driveway 1	I-95 West	4LD	1,960	25%	o	1	1	0.05%	No	0.05%	No

SITE CIRCULATION AND TURN LANE REQUIREMENTS

Future total driveway volumes were determined by applying the project distribution to the proposed future theoretical trip generation of the site. The project trip volumes at the site driveways are illustrated in **Figure 2**.

Driveway Classification

Access to the site is proposed via two driveways, located on 6th Avenue South and Congress Avenue. The driveway on 6th Avenue is an existing full-access driveway (signalized intersection), the driveway on Congress Avenue is an existing right-in/right-out.

According to the Palm Beach County “Guide to Parking Lot and Street Access Design Criteria and Standards”, it is necessary to classify project driveways as minor, intermediate, or major according to the following criteria:

1. Minor – Services a maximum daily volume of 500 vehicles
2. Intermediate – Services a daily volume ranging from 501 to 2000 vehicles.
3. Major – Services a daily volume of more than 2000 vehicles

Based on these criteria, the driveways are classified as follows:

<u>Driveway</u>	<u>Description</u>	<u>Classification</u>
6 th Avenue South	Full-Access	Minor
Congress Avenue	Right-in/Right-out	Minor

Turn Lane Requirements

The Palm Beach County “Guide to Parking Lot and Street Access Design Criteria and Standards” provides guidance on the provision of turn lanes at site driveways. According to the standards noted in this document, the volume thresholds for providing exclusive turn lanes are as follows:

- Right-Turn Lane – 75 peak hour turns, with driveway volumes that exceed 1,000 trips per day, and average daily traffic volumes that exceed 10,000 vehicles per day.
- Left-Turn Lane – 30 peak hour left turns

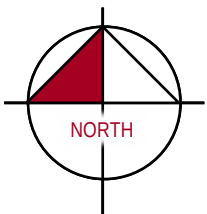
Based on these requirements, no turn lanes are required on either driveway.



LEGEND

-  Site Location
-  Inbound Traffic
-  Outbound Traffic
-  Driveway Location

FIGURE 2
The Arc PBC
KH# 241110000
Driveway Volume



CONCLUSION

The traffic impact analysis that was undertaken evaluate the impacts of traffic generated by the proposed development. The site is located on the southeast corner of Melaleuca Lane & Congress Avenue, In Palm Beach County, Florida. The proposed site will include the renovation of the existing warehouse to a theater. A significance analysis was done to determine if any links within the RDI would be considered significant with the addition of project traffic, under further analysis, no links were significantly impacted by the project traffic. The proposed development meets the requirements of the Palm Beach County Traffic Performance Standards Ordinance with a buildout date of 2028.

APPENDIX A: SITE INFORMATION AND PCN INFORMATION

Location Address 4522 S CONGRESS AVE**Municipality** PALM SPRINGS**Parcel Control Number** 70-43-44-29-00-003-0010**Subdivision****Official Records Book** 1656**Page**1292**Sale Date** MAY-1968

Legal Description 29-44-43, S 600 FT OF N 816.30 FT OF W 759.73 FT OF
GOV LT 3 & FILLED LANDS LYG E OF & ADJ TO IN
OR1656P1292 (LESS CONGRESS AVE R/W)

OwnersPALM BEACH HABILITATION
CENTER INC**Mailing address**4522 S CONGRESS AVE
LAKE WORTH BEACH FL 33461 4709

Sales Date	Price	OR Book/Page	Sale Type	Owner
MAY-1968	\$100	1656 / 01292	WARRANTY DEED	PALM BEACH HABILITATION CENTER INC

Exemption Applicant/Owner**Year**

2023

Detail**Number of Units** 0***Total Square Feet** 44305**Acres** 9.1152**Use Code** 1700 - OFFICE BLDG-NON
MEDICAL 1 TO 3 STORIES**Zoning** CG - COMMERCIAL
GENERAL (70-PALM
SPRINGS)

Tax Year	2023	2022	2021
Improvement Value	\$2,332,568	\$2,266,637	\$1,933,144
Land Value	\$1,658,966	\$1,579,664	\$1,354,974
Total Market Value	\$3,991,534	\$3,846,301	\$3,288,118

All values are as of January 1st each year

Tax Year	2023	2022	2021
Assessed Value	\$3,978,623	\$3,616,930	\$3,288,118
Exemption Amount	\$3,978,623	\$3,616,930	\$3,288,118
Taxable Value	\$0	\$0	\$0

Tax Year	2023	2022	2021
Ad Valorem	\$0	\$0	\$0
Non Ad Valorem	\$9,779	\$9,336	\$8,893
Total tax	\$9,779	\$9,336	\$8,893

APPENDIX B: INTERNAL CAPTURE

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour

based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily

based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION

INPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	187	187	46	6	9	41
	Retail	123	123	7	4	15	15
	Restaurant						
	Cinema/Entertainment						
	Residential						
	Hotel						
		310	310	53	10	24	56

INTERNAL TRIPS

OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	19	25	1	2	0	1
	Retail	25	19	2	1	1	0
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
		44	44	3	3	1	1
% Reduction		14.2%		9.5%		2.5%	

EXTERNAL TRIPS

OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	168	162	45	4	9	40
	Retail	98	104	5	3	14	15
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
		266	266	50	7	23	55

DAILY

GROSS TRIP GENERATION

DAILY	Land Use	Daily	
		Enter	Exit
	Office	187	187
	Retail	123	123
	Restaurant	0	0
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		310	310

Estimated Trip Origins within a Mixed-Use Development (Daily) (Average of A.M. Peak Hour and P.M. Peak Hour)

DAILY	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		24%	34%	0%	2%	0%
	Retail	16%		21%	2%	20%	3%
	Restaurant	17%	28%		4%	11%	5%
	Cinema/Entertainment	1%	11%	16%		4%	1%
	Residential	3%	22%	21%	0%		2%
	Hotel	38%	15%	39%	0%	1%	

Estimated Trip Destinations within a Mixed-Use Development (Daily) (Average of A.M. Peak Hour and P.M. Peak Hour)

DAILY	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		20%	13%	1%	2%	0%
	Retail	18%		40%	13%	24%	9%
	Restaurant	22%	29%		16%	11%	38%
	Cinema/Entertainment	3%	2%	2%		2%	1%
	Residential	30%	14%	17%	0%		6%
	Hotel	2%	3%	6%	0%	0%	

*** BASED ON EXIT ***

DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		45	62	0	3	0
	Retail	19		26	2	25	3
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		25	0	0	0	0
	Retail	33		0	0	0	0
	Restaurant	41	36		0	0	0
	Cinema/Entertainment	6	2	0		0	0
	Residential	56	17	0	0		0
	Hotel	3	4	0	0	0	
*** MINIMUM ***							
DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		25	0	0	0	0
	Retail	19		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
DAILY	Land Use	Daily					
		Enter	Exit				
	Office	19	25				
	Retail	25	19				
	Restaurant	0	0				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		44	44				

A.M. PEAK HOUR

GROSS TRIP GENERATION

A.M. PEAK	Land Use	A.M. Peak Hour	
		Enter	Exit
	Office	46	6
	Retail	7	4
	Restaurant	0	0
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		53	10

Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development (A.M. Peak Hour)

A.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		28%	63%	0%	1%	0%
	Retail	29%		13%	0%	14%	0%
	Restaurant	31%	14%		0%	4%	3%
	Cinema/Entertainment	0%	0%	0%		0%	0%
	Residential	2%	1%	20%	0%		0%
	Hotel	75%	14%	9%	0%	0%	

Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development (A.M. Peak Hour)

A.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		32%	23%	0%	0%	0%
	Retail	4%		50%	0%	2%	0%
	Restaurant	14%	8%		0%	5%	4%
	Cinema/Entertainment	0%	0%	0%		0%	0%
	Residential	3%	17%	20%	0%		0%
	Hotel	3%	4%	6%	0%	0%	

*** BASED ON EXIT ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		2	4	0	0	0
	Retail	1		1	0	1	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		2	0	0	0	0
	Retail	2		0	0	0	0
	Restaurant	6	1		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	1	1	0	0		0
	Hotel	1	0	0	0	0	
*** MINIMUM ***							
A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		2	0	0	0	0
	Retail	1		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
A.M. PEAK	Land Use	A. M. Peak Hour					
		Enter	Exit				
	Office	1	2				
	Retail	2	1				
	Restaurant	0	0				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		3	3				

P.M. PEAK HOUR

GROSS TRIP GENERATION

P.M. PEAK	Land Use	P.M. Peak Hour	
		Enter	Exit
	Office	9	41
	Retail	15	15
	Restaurant	0	0
	Cinema/Entertainment	0	0
	Residential	0	0
	Hotel	0	0
		24	56

Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development (P.M. Peak Hour)

P.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		20%	4%	0%	2%	0%
	Retail	2%		29%	4%	26%	5%
	Restaurant	3%	41%		8%	18%	7%
	Cinema/Entertainment	2%	21%	31%		8%	2%
	Residential	4%	42%	21%	0%		3%
	Hotel	0%	16%	68%	0%	2%	

Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development (P.M. Peak Hour)

P.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		8%	2%	1%	4%	0%
	Retail	31%		29%	26%	46%	17%
	Restaurant	30%	50%		32%	16%	71%
	Cinema/Entertainment	6%	4%	3%		4%	1%
	Residential	57%	10%	14%	0%		12%
	Hotel	0%	2%	5%	0%	0%	

*** BASED ON EXIT ***

P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		8	2	0	1	0
	Retail	0		4	1	4	1
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		1	0	0	0	0
	Retail	3		0	0	0	0
	Restaurant	3	8		0	0	0
	Cinema/Entertainment	1	1	0		0	0
	Residential	5	2	0	0		0
	Hotel	0	0	0	0	0	
*** MINIMUM ***							
P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		1	0	0	0	0
	Retail	0		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
P.M. PEAK	Land Use	P.M. Peak Hour					
		Enter	Exit				
	Office	0	1				
	Retail	1	0				
	Restaurant	0	0				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		1	1				

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY

GROSS TRIP GENERATION

INPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	185	185	46	6	8	41
	Retail	123	123	7	4	15	15
	Restaurant						
	Cinema/Entertainment	141	141	5	5	6	7
	Residential						
	Hotel						
		449	449	58	15	29	63

INTERNAL TRIPS

OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	20	25	1	2	0	1
	Retail	27	21	2	1	2	1
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	2	3	0	0	1	1
	Residential	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
		49	49	3	3	3	3
% Reduction		10.9%		8.2%		6.5%	

EXTERNAL TRIPS

OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	165	160	45	4	8	40
	Retail	96	102	5	3	13	14
	Restaurant	0	0	0	0	0	0
	Cinema/Entertainment	139	138	5	5	5	6
	Residential	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
		400	400	55	12	26	60

DAILY

GROSS TRIP GENERATION

DAILY	Land Use	Daily	
		Enter	Exit
	Office	185	185
	Retail	123	123
	Restaurant	0	0
	Cinema/Entertainment	141	141
	Residential	0	0
	Hotel	0	0
		449	449

Estimated Trip Origins within a Mixed-Use Development (Daily) (Average of A.M. Peak Hour and P.M. Peak Hour)

DAILY	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		24%	34%	0%	2%	0%
	Retail	16%		21%	2%	20%	3%
	Restaurant	17%	28%		4%	11%	5%
	Cinema/Entertainment	1%	11%	16%		4%	1%
	Residential	3%	22%	21%	0%		2%
	Hotel	38%	15%	39%	0%	1%	

Estimated Trip Destinations within a Mixed-Use Development (Daily) (Average of A.M. Peak Hour and P.M. Peak Hour)

DAILY	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		20%	13%	1%	2%	0%
	Retail	18%		40%	13%	24%	9%
	Restaurant	22%	29%		16%	11%	38%
	Cinema/Entertainment	3%	2%	2%		2%	1%
	Residential	30%	14%	17%	0%		6%
	Hotel	2%	3%	6%	0%	0%	

*** BASED ON EXIT ***

DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		44	62	0	3	0
	Retail	19		26	2	25	3
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	1	15	22		6	1
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		25	0	1	0	0
	Retail	32		0	18	0	0
	Restaurant	41	36		23	0	0
	Cinema/Entertainment	6	2	0		0	0
	Residential	55	17	0	0		0
	Hotel	3	4	0	0	0	
*** MINIMUM ***							
DAILY	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		25	0	0	0	0
	Retail	19		0	2	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	1	2	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
DAILY	Land Use	Daily					
		Enter	Exit				
	Office	20	25				
	Retail	27	21				
	Restaurant	0	0				
	Cinema/Entertainment	2	3				
	Residential	0	0				
	Hotel	0	0				
		49	49				

A.M. PEAK HOUR

GROSS TRIP GENERATION

A.M. PEAK	Land Use	A.M. Peak Hour	
		Enter	Exit
	Office	46	6
	Retail	7	4
	Restaurant	0	0
	Cinema/Entertainment	5	5
	Residential	0	0
	Hotel	0	0
		58	15

Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development (A.M. Peak Hour)

A.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		28%	63%	0%	1%	0%
	Retail	29%		13%	0%	14%	0%
	Restaurant	31%	14%		0%	4%	3%
	Cinema/Entertainment	0%	0%	0%		0%	0%
	Residential	2%	1%	20%	0%		0%
	Hotel	75%	14%	9%	0%	0%	

Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development (A.M. Peak Hour)

A.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		32%	23%	0%	0%	0%
	Retail	4%		50%	0%	2%	0%
	Restaurant	14%	8%		0%	5%	4%
	Cinema/Entertainment	0%	0%	0%		0%	0%
	Residential	3%	17%	20%	0%		0%
	Hotel	3%	4%	6%	0%	0%	

*** BASED ON EXIT ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		2	4	0	0	0
	Retail	1		1	0	1	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		2	0	0	0	0
	Retail	2		0	0	0	0
	Restaurant	6	1		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	1	1	0	0		0
	Hotel	1	0	0	0	0	
*** MINIMUM ***							
A.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		2	0	0	0	0
	Retail	1		0	0	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	0	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
A.M. PEAK	Land Use	A. M. Peak Hour					
		Enter	Exit				
	Office	1	2				
	Retail	2	1				
	Restaurant	0	0				
	Cinema/Entertainment	0	0				
	Residential	0	0				
	Hotel	0	0				
		3	3				

P.M. PEAK HOUR

GROSS TRIP GENERATION

P.M. PEAK	Land Use	P.M. Peak Hour	
		Enter	Exit
	Office	8	41
	Retail	15	15
	Restaurant	0	0
	Cinema/Entertainment	6	7
	Residential	0	0
	Hotel	0	0
		29	63

Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development (P.M. Peak Hour)

P.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		20%	4%	0%	2%	0%
	Retail	2%		29%	4%	26%	5%
	Restaurant	3%	41%		8%	18%	7%
	Cinema/Entertainment	2%	21%	31%		8%	2%
	Residential	4%	42%	21%	0%		3%
	Hotel	0%	16%	68%	0%	2%	

Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development (P.M. Peak Hour)

P.M. PEAK	Origin Land Use	Destination Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		8%	2%	1%	4%	0%
	Retail	31%		29%	26%	46%	17%
	Restaurant	30%	50%		32%	16%	71%
	Cinema/Entertainment	6%	4%	3%		4%	1%
	Residential	57%	10%	14%	0%		12%
	Hotel	0%	2%	5%	0%	0%	

*** BASED ON EXIT ***

P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		8	2	0	1	0
	Retail	0		4	1	4	1
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	1	2		1	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	

*** BASED ON ENTER ***

P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		1	0	0	0	0
	Retail	2		0	2	0	0
	Restaurant	2	8		2	0	0
	Cinema/Entertainment	0	1	0		0	0
	Residential	5	2	0	0		0
	Hotel	0	0	0	0	0	
*** MINIMUM ***							
P.M. PEAK	(Exit) Land Use	(Enter) Land Use					
		Office	Retail	Restaurant	Cinema/Ent.	Residential	Hotel
	Office		1	0	0	0	0
	Retail	0		0	1	0	0
	Restaurant	0	0		0	0	0
	Cinema/Entertainment	0	1	0		0	0
	Residential	0	0	0	0		0
	Hotel	0	0	0	0	0	
INTERNAL TRIPS							
P.M. PEAK	Land Use	P.M. Peak Hour					
		Enter	Exit				
	Office	0	1				
	Retail	2	1				
	Restaurant	0	0				
	Cinema/Entertainment	1	1				
	Residential	0	0				
	Hotel	0	0				
		3	3				

APPENDIX C: ITE

Land Use: 445

Movie Theater

Description

A movie theater is a place where movies are screened for public entertainment. A theater includes a lobby, refreshment area, and audience seating for each movie screen. Amenities such as reclining seats, tiered stadium seating, and assigned seating are sometimes offered. A theater can be stand-alone or part of a larger retail complex.

Additional Data

Caution should be used when applying these data, as the peaking characteristics for this land use can have a significant impact on trip generation rates. Peaking at movie theaters typically occur in time periods shorter than an hour. The start and end times for a movie theater may be staggered to reduce peak surging impacts.

For 25 sites with data for both number of movie screens and number of seats, the average number of seats per movie screen was 236 (with values ranging between 150 and 336). The database includes two exceptions, both theaters with three movie screens and with an average of 740 seats per movie screen.

The peak hour of the generator for movie theaters occurred on Friday and Saturday evenings between 6:00 p.m. and 10:00 p.m.

The sites were surveyed in the 1980s, 1990s, the 2000s, and the 2010s in California, Connecticut, Georgia, Hawaii, Maryland, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Texas, Virginia, and Wisconsin.

Source Numbers

213, 215, 241, 283, 387, 397, 418, 433, 440, 443, 450, 451, 452, 453, 455, 456, 457, 458, 459, 513, 544, 618, 959

Movie Theater (445)

Vehicle Trip Ends vs: Seats

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Seats: 1236

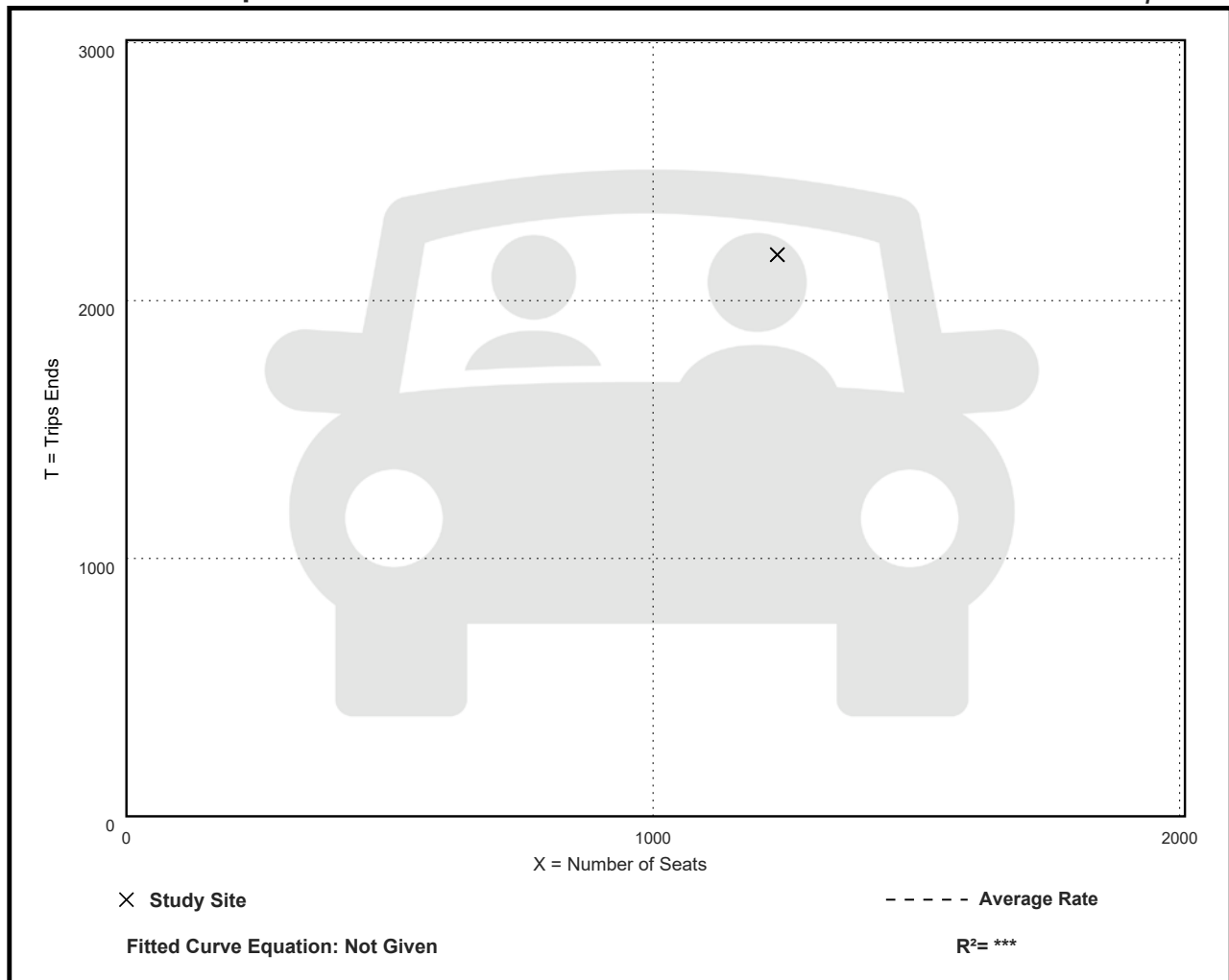
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
1.76	1.76 - 1.76	***

Data Plot and Equation

Caution – Small Sample Size



Movie Theater (445)

Vehicle Trip Ends vs: Seats

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 5

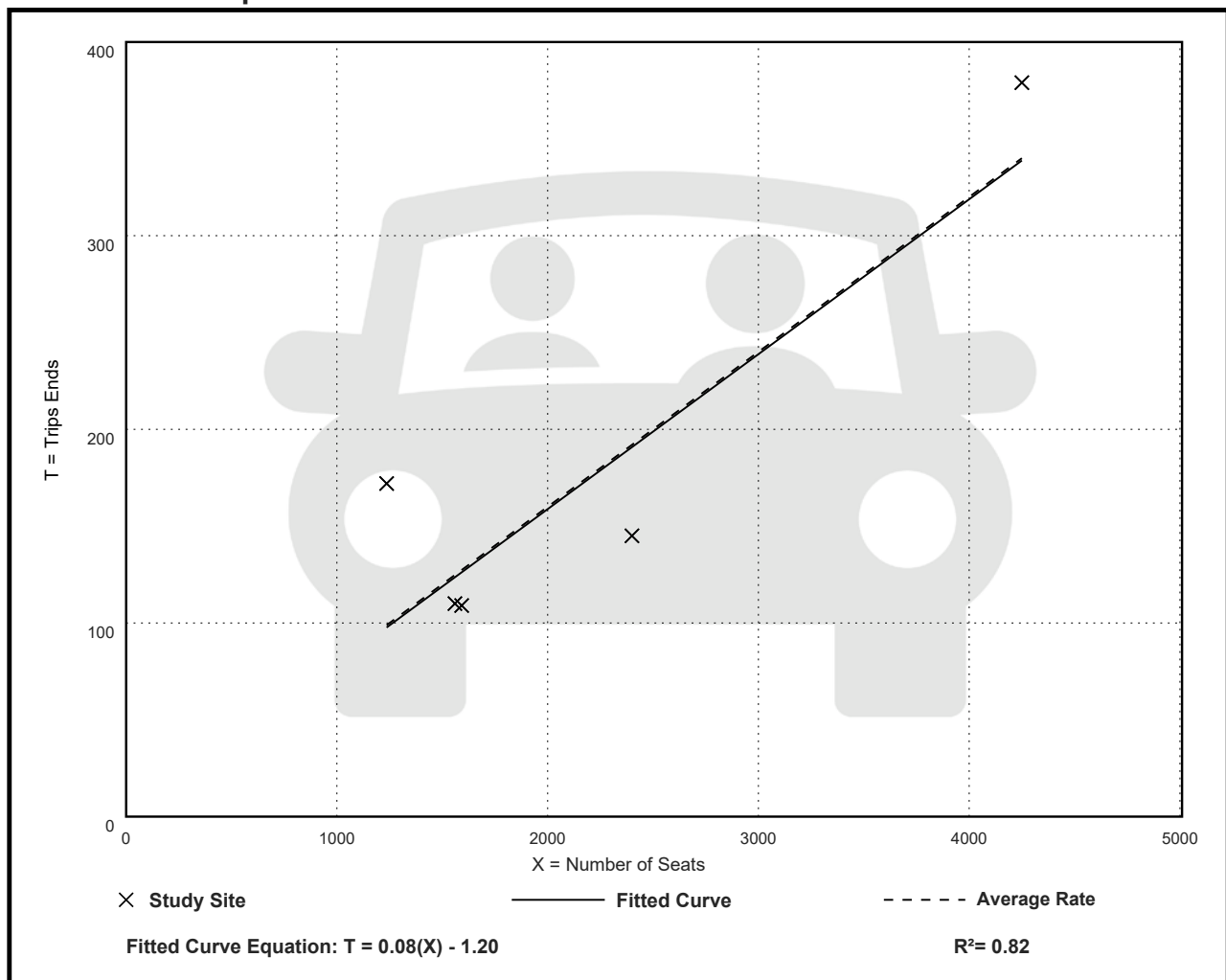
Avg. Num. of Seats: 2208

Directional Distribution: 44% entering, 56% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.08	0.06 - 0.14	0.03

Data Plot and Equation



Movie Theater (445)

Vehicle Trip Ends vs: Seats

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Seats: 1236

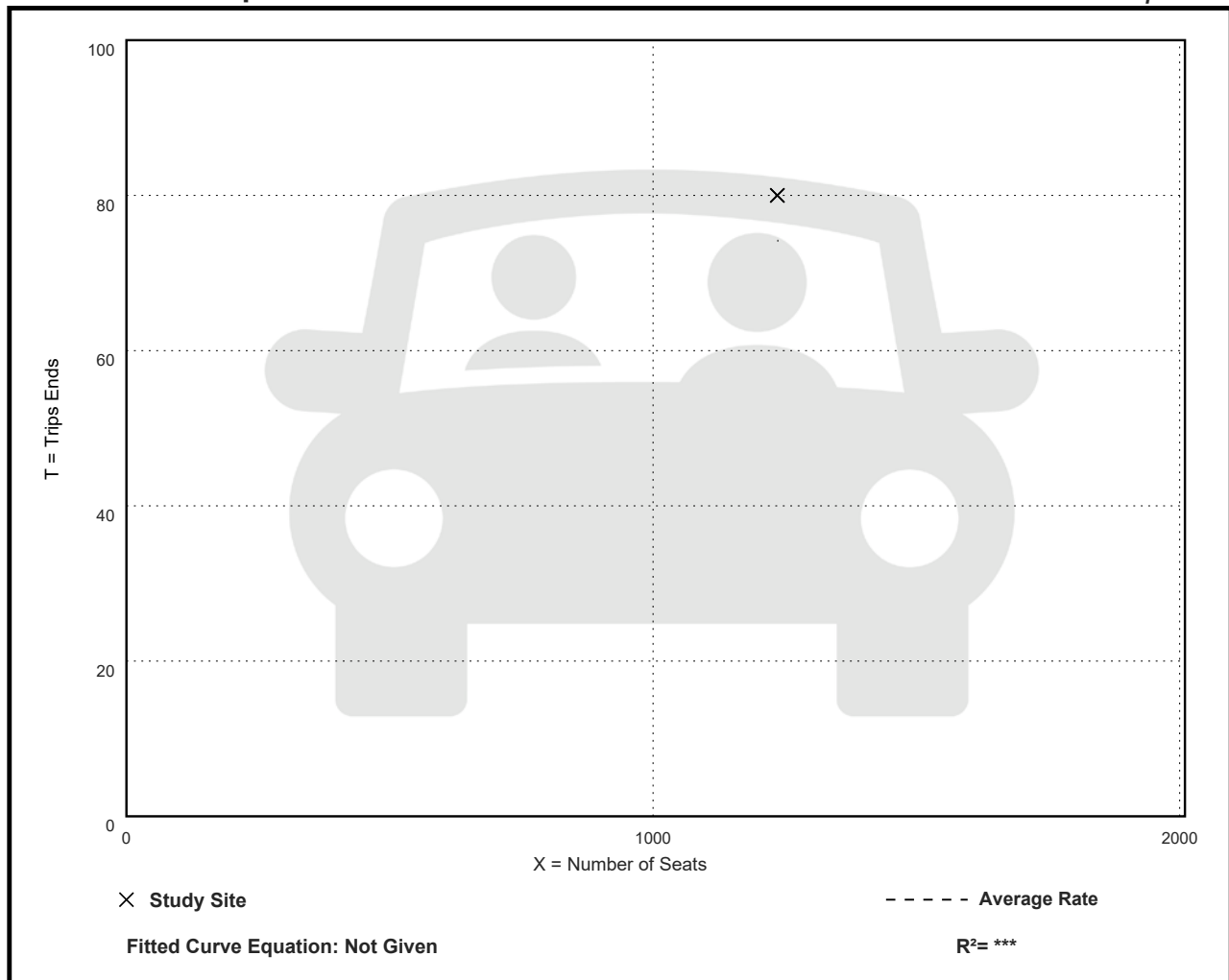
Directional Distribution: Not Available

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.06	0.06 - 0.06	***

Data Plot and Equation

Caution – Small Sample Size



Movie Theater (445)

Vehicle Trip Ends vs: Seats

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 2

Avg. Num. of Seats: 1988

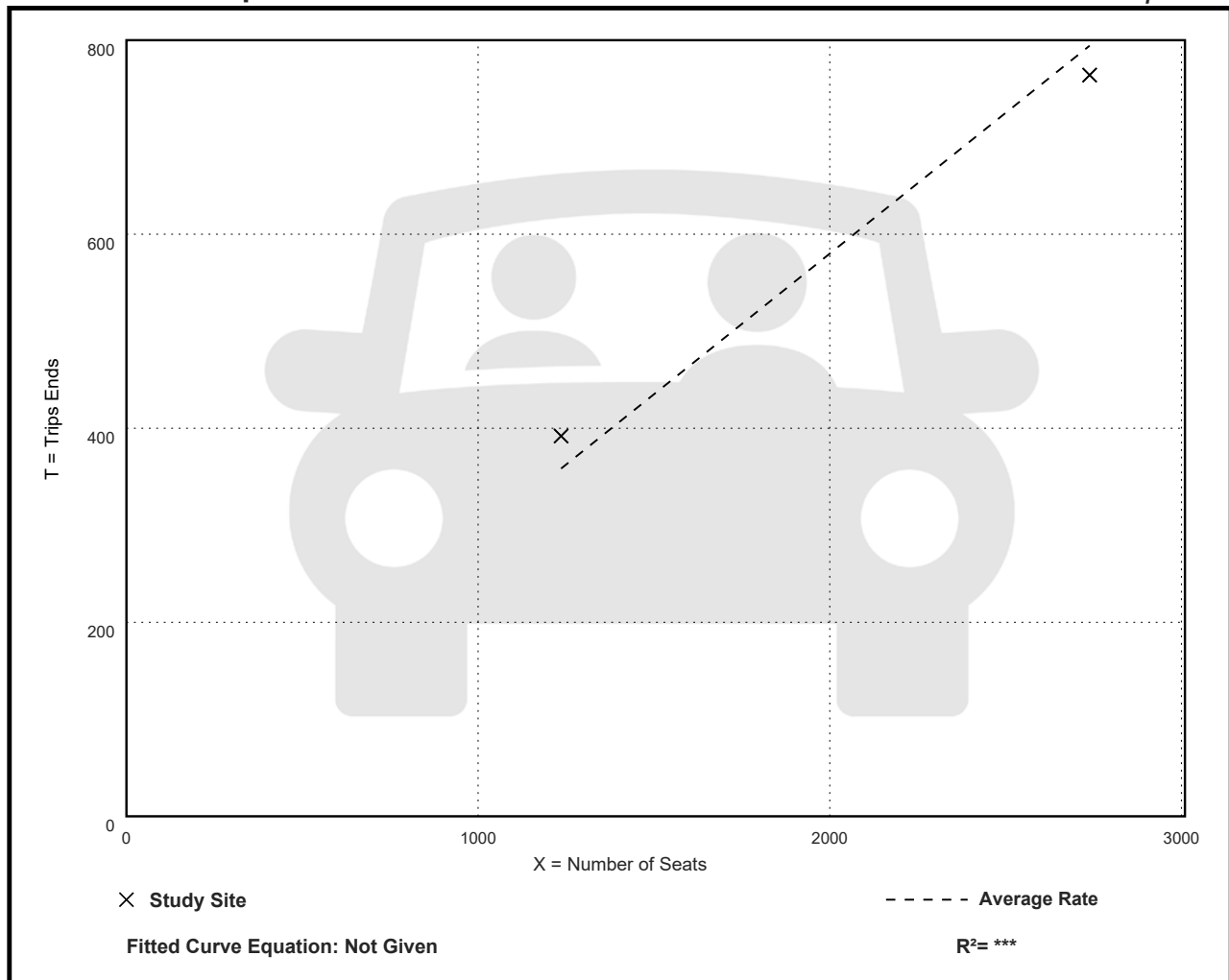
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.29	0.28 - 0.32	***

Data Plot and Equation

Caution – Small Sample Size



Movie Theater (445)

Vehicle Trip Ends vs: Seats

On a: Friday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 18

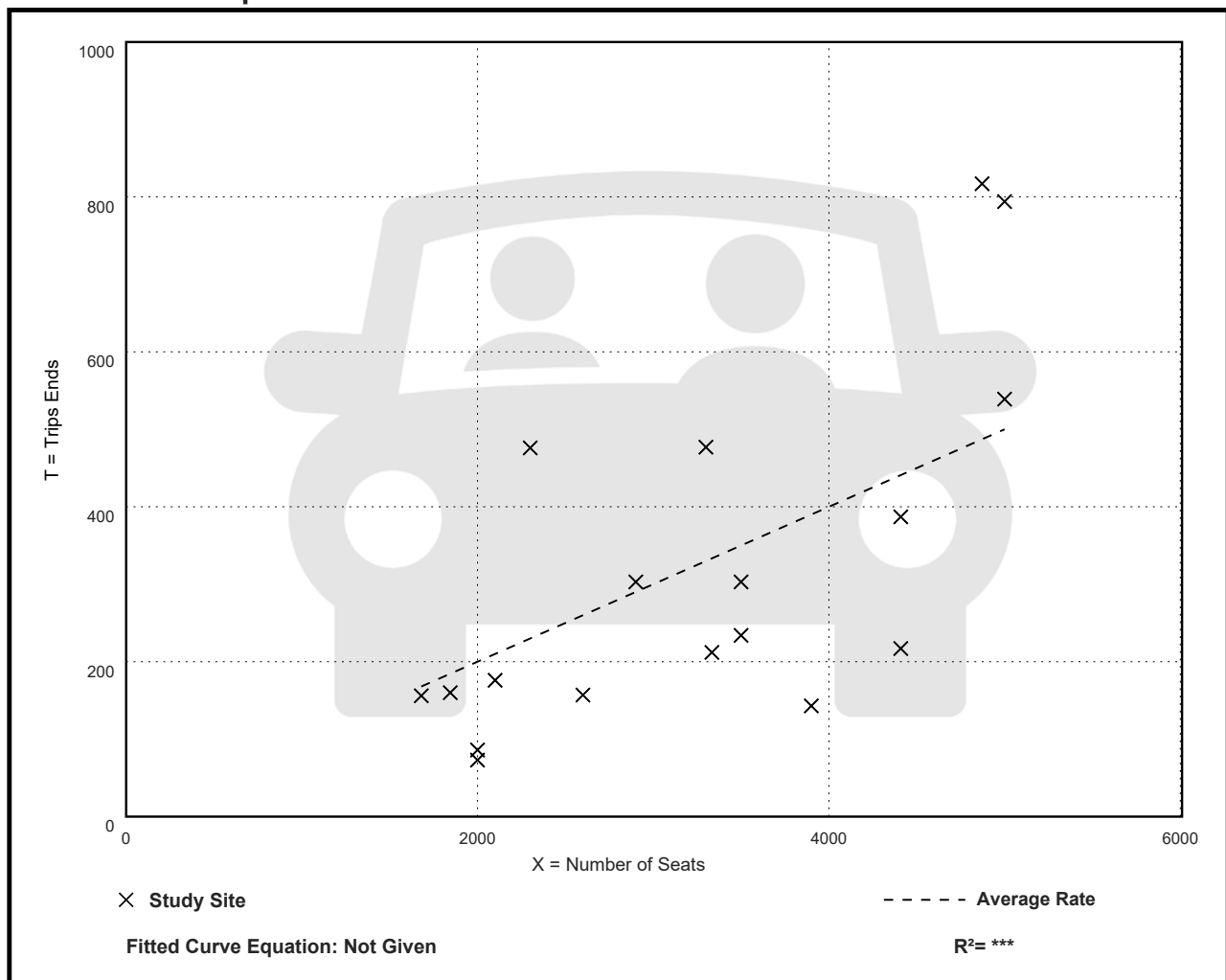
Avg. Num. of Seats: 3258

Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.10	0.04 - 0.21	0.05

Data Plot and Equation



Village of Palm Springs Development Review

DATE: 8/29/2024

DESCRIPTION: 4522 South Congress Ave: ARC Arts Center – Site Plan Application

APPLICANT: Ellie Marshall, COO, The ARC of Palm Beach County,
Marty R.A. Minor of Urban Design Studio

OWNER: Palm Beach Habilitation Center, Inc. (The ARC of Palm Beach County)

APPLICATION TYPE: Site Plan (Minor/Major)

REQUEST: Site Plan, Utilities/Civil & Landscape Plan Review

LOCATION: 4522 South Congress Ave, Palm Springs, FL 33461

STAFF REVIEW: **Recommended Acceptance Letter**

Based on a review of the plans the Engineering Department can recommend the acceptance of the plans submitted with the following comments:

Conditions of Recommendation:

1. The Village has reviewed the Document “Exhibit – Fire Hydrant”. The applicant will need to provide a fire hydrant and/or FDC to provide necessary coverage. The exhibit will need to be reviewed by the Fire Department prior to building department approval.
2. Confirm the finish floor elevation and the potential need to address the elevation. The sidewalk surrounding the proposed parking is higher than the existing elevation of the proposed theater. Applicant Response: Finished floor elevations (FFE) are existing and to remain. The FFEs of the existing buildings to be renovated and the proposed building will be coordinated with the flood plain manager prior to building department approval. The reviewer’s concerns are noted here and will be in the final recommendation.
3. Does this overall site have a permit that is being modified. Because there is a statement this sub-basin overflows to the existing parking lot. Applicant Response: All runoff from the improvements is to be contained on-site, so a controlled discharge is not proposed. The design will be completed to account for the improvements and meet the requirements of SFWMD and

500 S. Australian Ave., Suite 850
West Palm Beach, FL 33401
Office: +1 (561) 746-6900



LWDD. The perimeter berms will be designed to meet the 25-year, 3-day storm event, which controls sub-basin overflows. Final drainage will be reviewed at the time of building permit application. Applicant must except that significant modifications may be required at building department review time to meet flood plain manager requirements.

This letter has been prepared by the following individual, in association with their consultants and subconsultants:

David Cowan Jr., P.E.

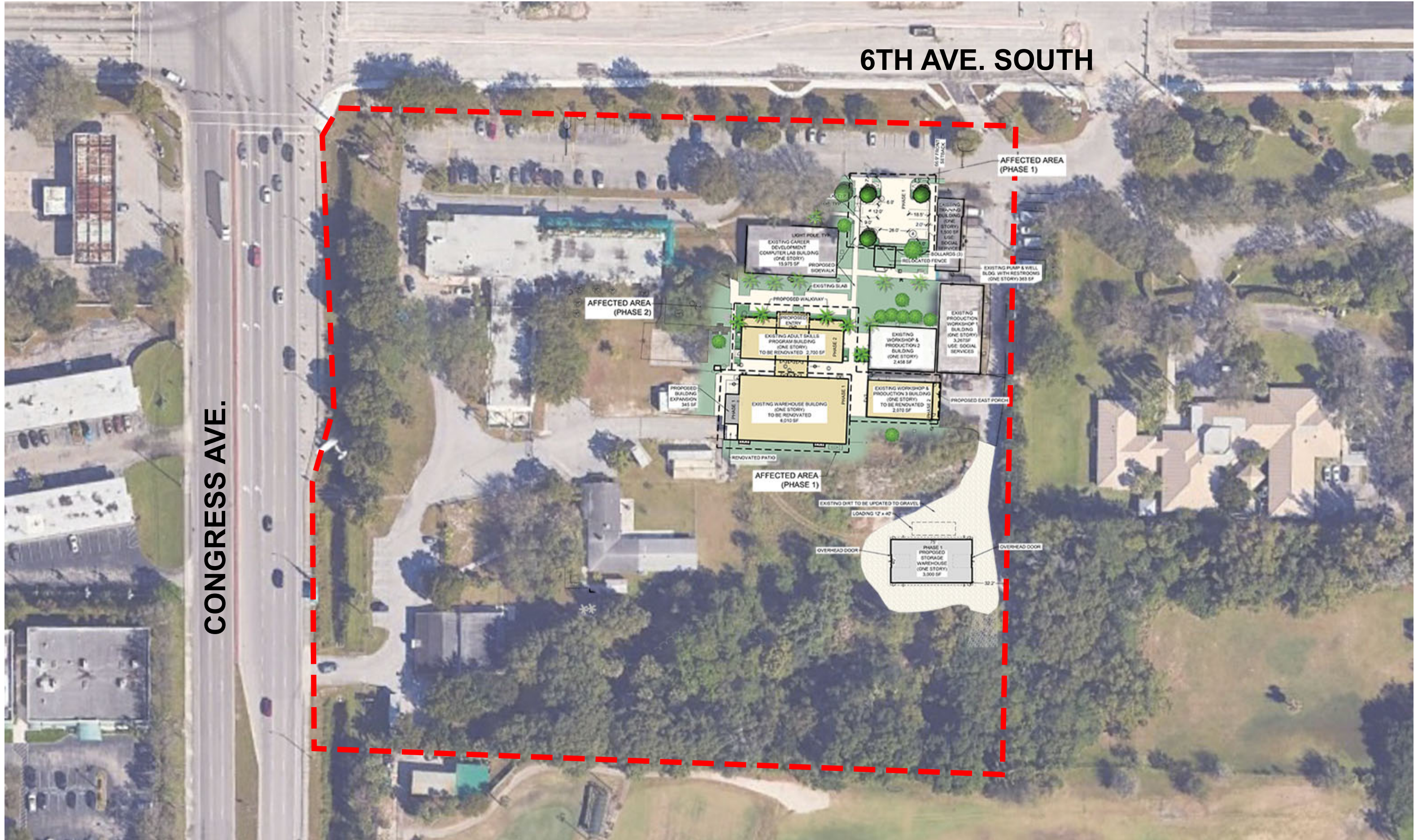
Chen Moore and Associates

Tel: 561.746.6900 x 1220

Email: dcowan@chenmoore.com

CONGRESS AVE.

6TH AVE. SOUTH

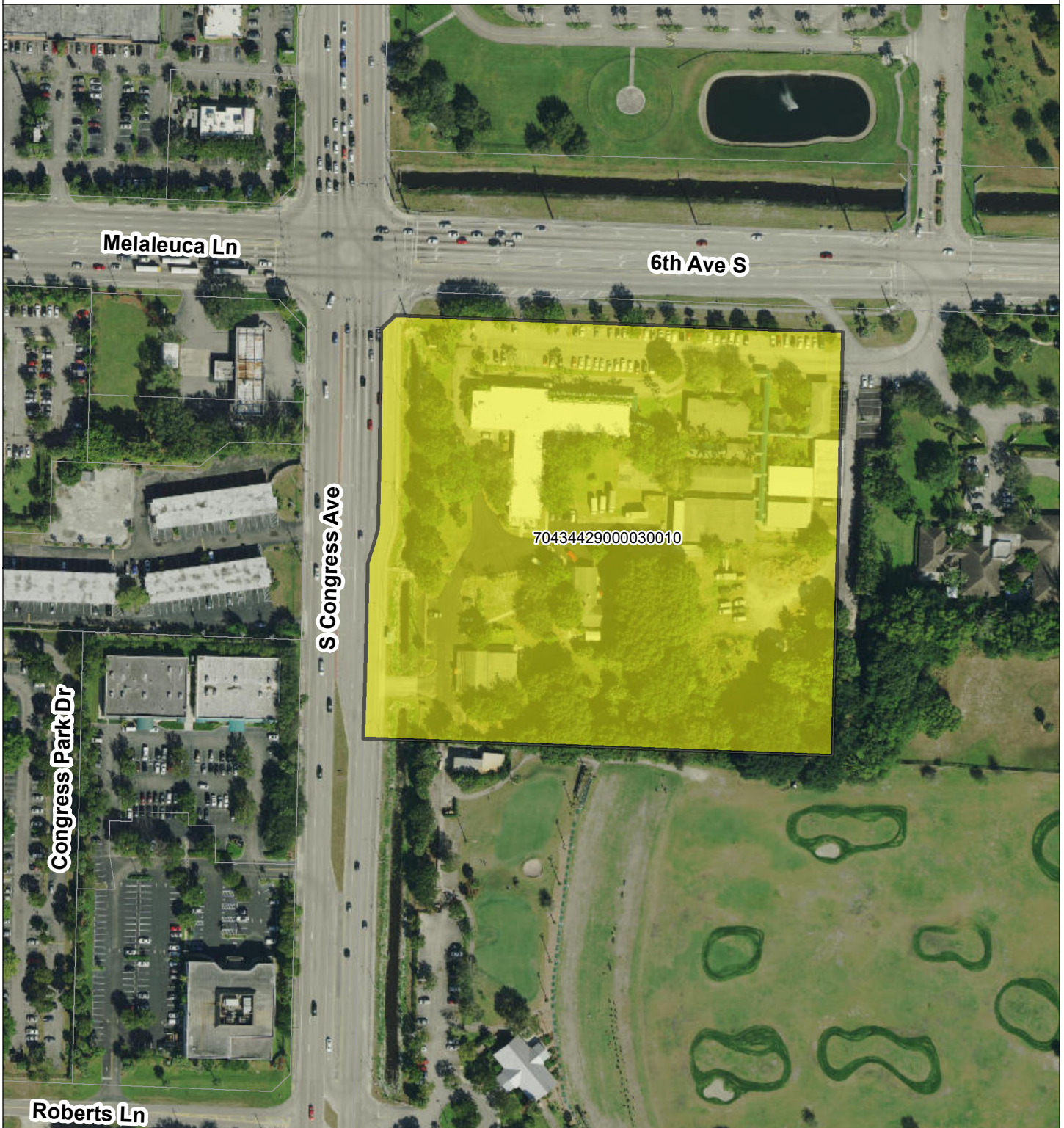






VILLAGE OF PALM SPRINGS

Palm Beach Habilitation Center



0 50 100 200 300 400 500 600 700 800 Feet



 4522 S Congress

Date: 5/21/2019



VILLAGE OF PALM SPRINGS

Palm Beach Habilitation Center



 4522 S Congress

Date: 5/21/2019