

Solicitation 12249-293

G.T. Lohmeyer Deep Injection Wells Mechanical Integrity Test Project 12469

Bid Designation: Public



City of Fort Lauderdale

Bid 12249-293**G.T. Lohmeyer Deep Injection Wells Mechanical Integrity Test Project 12469**

Bid Number 12249-293
 Bid Title G.T. Lohmeyer Deep Injection Wells Mechanical Integrity Test Project 12469

Bid Start Date Mar 13, 2019 9:16:25 AM EDT
 Bid End Date Apr 16, 2019 2:00:00 PM EDT
 Question & Answer End Date Apr 4, 2019 5:00:00 PM EDT

Bid Contact Jim Hemphill
 Sr. Procurement Specialist
 Procurement Department
 954-828-5143
 jhemphill@fortlauderdale.gov

Contract Duration One Time Purchase
 Contract Renewal Not Applicable
 Prices Good for 120 days
 Pre-Bid Conference Mar 27, 2019 10:00:00 AM EDT
 Attendance is optional
 Location: GTL WWTP, 1765 SE 18th Street
 Fort Lauderdale, FL, 33316

Bid Comments **Sealed bids will be received electronically until 2:00 P.M., local time, on Tuesday April 16, 2019 and opened immediately thereafter in the 5th Floor Conference Room, City Hall, 100 North Andrews Avenue, Fort Lauderdale, Florida, 33301, for BID NO., 12249-293, PROJECT NO., 12469, GT LOHMEYER WASTE WATER TREATMENT PLANT DEEP INJECTION WELLS MECHANICAL INTEGRITY TEST**

This project consists of Drawing File No. N/A.

This project is located at 1000 SE 21 Street, Fort Lauderdale, Florida, 33316 in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, furnishing all labor, materials and equipment to perform mechanical integrity testing (MIT) of five (5) existing Class I injection wells. The Injection Wells have a 24-inch outside diameter (OD), 0.500-inch wall thickness injection casing set to total depths of 2,800 to 2,820 feet below land surface (bls) and were constructed with a nominal 22-inch diameter open borehole extending from the bottom of the casing to approximately 3,305 to 4,010 feet bls. Also, new flowmeters, pressure indicating transmitters, repair concrete pipe exterior, piping and surge tank painting, and required appurtenances at each injection well.

NOTE: Payment on this contract will be made by Visa or MasterCard.

Licensing Requirements: Possession of a Geophysical Contractor holding a valid State of Florida Water Well Contractor License issued by the South Florida Water Management District is required for this Project.

Pre-Bid Meeting/Site visit: A pre-bid meeting and/or site visit will be held on Tuesday March 27, 2019, at 10:00 a.m. local time, at GTL WWTP, 1765 SE 18th Street, Fort Lauderdale, FL, 33316

While attendance is not mandatory, it is strongly suggested that all Contractors attend the pre-proposal conference and site visit since tours at other times might not be available. It will be the sole responsibility of the bidder to inspect the City's location(s)/facilities and become familiar with the scope of the City's requirements and systems prior to submitting a proposal. No variation in price or conditions shall be

permitted based upon a claim of ignorance. Submission of a proposal will be considered evidence that the proposer has familiarized himself with the nature and extent of the work, equipment, materials, and labor required.

Bidding blanks may be obtained free of charge at BIDSYNC.COM. Drawing Plans are on file in the Public Works Department, City of Fort Lauderdale, at 100 North Andrews Avenue, 4th floor, (Monday thru Friday 8:00 am to 4:30 pm) at a NON-REFUNDABLE cost of \$0.00 (including sales tax per set). Only cash or cashier's check made payable to the City of Fort Lauderdale are accepted.

It will be the sole responsibility of the bidder to ensure that his bid is submitted prior to the bid opening date and time listed. PAPER BID SUBMITTALS WILL NOT BE ACCEPTED. BIDS MUST BE SUBMITTED ELECTRONICALLY VIA BIDSYNC.COM

Bid Security: A certified check, cashier's check, bank officer's check or bid bond for FIVE percent (5%) of the bid amount, made payable to the City of Fort Lauderdale, Florida, shall accompany each proposal.

Bid Bonds:

Bidders can submit bid bonds for projects four different ways:

BidSync allows bidders to submit bid bonds electronically directly through their system using Surety 2000. For more information on this feature and to access it, contact BIDSYNC customer care department.

Bidders may upload their original executed bid bond on BIDSYNC to accompany their bids with the electronic proposal, and deliver the original, signed and sealed hard copy within five (5) business days after bid opening, with the company name, bid number and title clearly indicated.

Bidders can hand deliver their bid bond in a sealed envelope to the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, FL 33301-1016, before time of bid opening, with the company name, bid number and title clearly indicated on the envelope.

Bidders can mail their bid bond to the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, FL 33301-1016, before time of bid opening, with the company name, bid number and title clearly indicated on the envelope.

Certified Checks, Cashier's Checks and Bank Drafts

These cannot be submitted via BIDSYNC, nor are their images allowed to be uploaded and submitted with your electronic bid. These forms of securities, as well as hard copy bid bonds, must be received on or before the Invitation to Bid (ITB) opening date and time, at the Finance Department/Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, FL 33301-1016, with the bid number and title clearly indicated on the envelope.

It is the bidder's sole responsibility to ensure that his bid bond or other bid security is received by the Procurement Services Division before time of bid opening. Failure to adhere to this requirement may be grounds to consider the bid as non-responsive.

The City of Fort Lauderdale reserves the right to waive any informality in any or all bids and to reject any or all bids.

For information concerning technical specifications, please utilize the question/answer feature provided by BIDSYNC at www.bidsync.com. Questions of a material nature must be received prior to the cut-off date specified in the solicitation. Material changes, if any, to the scope of services or bidding procedures, will only be transmitted by written addendum. (See addendum section of BIDSYNC Site). Contractors please note: No part of your bid can be submitted via FAX. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the Contractor has familiarized himself with the nature and extent of the work, equipment, materials, and labor required. The entire bid response must be submitted in accordance with all specifications contained in this solicitation.

Information on bid results and projects currently out to bid can be obtained on the City's website – <http://www.fortlauderdale.gov/departments/finance/procurement-services>. For general inquiries, please call (954) 828-5933.

Added on Apr 2, 2019:

Addendum No. 1

Dated April 2, 2019

See Addendum No.1 for numerous changes.

Addendum # 1

New Documents 12249-293 Addendum_1.pdf

Changes were made to the following items:

Video Survey

Item Response Form

Item 12249-293--01-01 - Base Bid: Kill the well

Lot Description Base Bid

Quantity 10 each

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 10

Description

Furnish all materials, labor and equipment for suppressing the well differential back pressure in each of the Floridian Aquifer injection well, as required for all phases of the mechanical integrity testing

Item 12249-293--01-02 - Base Bid: Brush the Casing

Lot Description Base Bid

Quantity 5 each

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 5

Description

Furnishing all materials, labor and equipment for cleaning the interior casing of each of the Floridian Aquifer injection wells for its entire length

Item 12249-293--01-03 - Base Bid: Pressure Test the Casing

Lot Description Base Bid

Quantity 5 each

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 5

Description

Furnish all materials, labor and equipment to pressure test the well casing interior of the injection well, for its entire length, including packer mechanical integrity test

Item 12249-293--01-04 - Base Bid: Reposition Packer Contingency**Lot Description** Base Bid**Quantity** 5 each**Unit Price** **Delivery Location** City of Fort Lauderdale[See ITB Specifications](#)[See ITB Specifications](#)

Fort Lauderdale FL 33301

Qty 5

Description

Furnish all materials, labor and equipment to reposition the packer device and re-pressurize the interior well casing, in addition to that covered in Item 3, if ordered by the Engineer

Item 12249-293--01-05 - Base Bid: Radioactive Tracer Survey**Lot Description** Base Bid**Quantity** 5 each**Unit Price** **Delivery Location** City of Fort Lauderdale[See ITB Specifications](#)[See ITB Specifications](#)

Fort Lauderdale FL 33301

Qty 5

Description

Furnish all materials, labor and equipment for performing a temperature log and radioactive tracer survey at the injection well

Item 12249-293--01-06 - Base Bid: Radioactive Tracer Contingency**Lot Description** Base Bid**Quantity** 15 hour**Unit Price** **Delivery Location** City of Fort Lauderdale[See ITB Specifications](#)[See ITB Specifications](#)

Fort Lauderdale FL 33301

Qty 15

Description

Furnish all materials, labor and equipment for performing additional radioactive survey or temperature log in addition to that covered in Item 5, if ordered by the City

Item 12249-293--01-07 - Base Bid: Video Survey**Lot Description** Base Bid**Quantity** 10 each

Unit Price Delivery Location **City of Fort Lauderdale**[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 10

Description

Furnish all materials, labor and equipment for performing a closed circuit television survey of the Floridian Aquifer injection well including the interior casing for its full length and the open borehole to its full depth

Added on Apr 2, 2019:

Quantity changed from 5 each to 10 each.

Addendum # 1

Previous Delivery Location/Quantity	See ITB Specifications Fort Lauderdale, FL 33301 Qty 5	New Delivery Location/Quantity	See ITB Specifications Fort Lauderdale, FL 33301 Qty 10
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Item **12249-293--01-08 - Base Bid: Standby Time Contingency**Lot Description **Base Bid**Quantity **50 hour**Unit Price Delivery Location **City of Fort Lauderdale**[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 50

Description

Waiting time and standby time when ordered and approved by the City Manager or designee, will be paid for at the unit price bid, times the number of hours authorized by the City Manager or designee

Item **12249-293--01-09 - Base Bid: Painting**Lot Description **Base Bid**Quantity **1 lump sum**Unit Price Delivery Location **City of Fort Lauderdale**[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all materials, labor, tools, ladders, scaffolding, required for painting all pipes, fittings, valves, surge tanks, and other appurtenances for five deep injection wells

Item **12249-293--01-10 - Base Bid: Pipe Exterior Repair**Lot Description **Base Bid**Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, material, and equipment to repair the exterior concrete of the existing precast concrete cylinder pipe as necessary per the Figures

Item **12249-293--01-11 - Base Bid: Field Instrumentation**

Lot Description Base Bid

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, material, and equipment to replace the flowmeters, pressure indicating transmitters, and all appurtenant items as necessary per the Figures and Specifications

Item **12249-293--01-12 - Base Bid: Mobilization/Demobilization**

Lot Description Base Bid

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Mobilization includes providing/installing/removing project sign, required field coordination and project management, submittals, RFIs, insurance, site cleanup, sanitary facilities, bonds, video, labor associated with permit acquisition, staging area, testing, construction trailer and demobilization; not to exceed 5% of the base bid.

***CITY OF FORT LAUDERDALE
CONTRACT AND SPECIFICATIONS PACKAGE***

BID NO. 12249-283

PROJECT NO.12469

**GT LOHMEYER WWTP DEEP INJECTION
WELLS MECHANICAL INTEGRITY TEST**



**HERBERT STANLEY
PROJECT MANAGER II**

**GINAH JOSEPH
SENIOR PROCUREMENT SPECIALIST**
Telephone: (954) 828-4797 E-mail: gjoseph@fortlauderdale.gov

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APPENDIX A

Mechanical Integrity Test (MIT) PLAN

Note: The following documents are available electronically for completion and documents must be returned with your bid along with your **bid security**, proof of insurance, and proof of required licenses/certification

- CITB Prime Contractor ID
- CITB Questionnaire Sheets
- CITB Trench Safety
- CITB Local Business Price Preference Certification
- CITB Non-Collusion Statement
- Non-Discrimination Certification
- Contract Payment Method
- CITB Construction Bid Certification

INVITATION TO BID

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Information on bid results and projects currently out to bid can be obtained on the City's website – <http://www.fortlauderdale.gov/departments/finance/procurement-services>. For general inquiries, please call (954) 828-5933.

INSTRUCTIONS TO BIDDERS

The following instructions are given for the purpose of guiding bidders in properly preparing their bids or proposals. These directions have equal force and weight with the specifications and strict compliance is required with all of these provisions.

QUALIFICATIONS OF BIDDERS – No proposal will be accepted from, nor will any contract be awarded to, any person who is in arrears to the CITY OF FORT LAUDERDALE, upon any debt or contract, or who has defaulted, as surety or otherwise, upon any obligation to the City, or who is deemed irresponsible or unreliable by the City Commission of Fort Lauderdale.

PERSONAL INVESTIGATION - Bidders shall satisfy themselves by personal investigation, and by such other means as they may think necessary or desirable, as to the conditions affecting the proposed work and the cost. No information derived from maps, plans, specifications, or from the Engineer, City Manager, or their assistants shall relieve the Contractor from any risk or from fulfilling all terms of the contract.

INCONSISTENCIES – Any seeming inconsistency between different provisions of the plans, specifications, proposal or contract, or any point requiring explanation must be inquired into by the bidder, in writing, at least ten (10) days prior to the time set for opening proposals. After proposals are opened, the bidders shall abide by the decision of the Engineer as to such interpretation.

ADDENDA AND INTERPRETATIONS - No interpretations of the meaning of the plans, specifications or other contract documents will be made orally to any bidder. Prospective bidders must request such interpretation in writing as instructed in the bid package. To be considered, such request must be received by the Questions and Answers deadline as indicated in BIDSYNC.COM. Material changes, if any, to the scope of services or bidding procedures will only be transmitted by written addendum. **It is the bidder's responsibility to verify if addendums have been issued in BIDSYNC.COM.** Failure of any bidder to receive any such addenda or interpretation shall not relieve any bidder from any obligation under his bid as submitted. All addenda so issued shall become a part of the contract document. **Bidder** shall verify **in BIDSYNC.COM** that he has all addenda before submitting a bid.

LEGAL CONDITIONS - Bidders are notified to familiarize themselves with the provisions of the laws of the State of Florida relating to hours of labor on municipal work, and with the provisions of the laws of the State of Florida and the Charter and the ordinances of the City of Fort Lauderdale.

PUBLIC ENTITY CRIMES - 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 or services to a public entity, may not submit a bid on a contract with a public entity for the 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, Florida Statutes, for CATEGORY TWO for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.

FORMS OF PROPOSALS - Each proposal and its accompanying statements must be made on the blanks provided. **THE FORMS MUST BE SUBMITTED ELECTRONICALLY, IN GOOD ORDER WITH ALL BLANKS COMPLETED,** and must show the name of the bidder and a statement as to its contents.

INSTRUCTIONS TO BIDDERS (continued)

FORMS OF PROPOSALS (CONTINUED) - The proposal must be signed by one duly authorized to do so, and in case signed by a deputy or subordinate, the principal's properly written authority to such deputy or subordinate must accompany the proposal. No proposal will be accepted, for any reason whatsoever, which is not submitted to the City as stated above, within the specified time.

INSURANCE - Contractor shall provide and shall require all of its sub-contractors to provide, pay for, and maintain in force at all times during the term of the Agreement, such insurance, including Property Insurance (Builder's Risk), Commercial General Liability Insurance, Business Automobile Liability Insurance, Workers' Compensation Insurance, Employer's Liability Insurance, and Umbrella/Excess Liability, as stated below. Such policy or policies shall be issued by companies authorized to do business in the State of Florida and having agents upon whom service of process may be made in the State of Florida.

BID BOND - A certified check, cashier's check or bank officer's check, for the sum set forth in the advertisement, made payable to the City of Fort Lauderdale, Florida, or bid bond in such amount, shall accompany each proposal as evidence of the good faith and responsibility of the bidder. The check or bond shall be retained by the City as liquidated damages should the bidder refuse to or fail to enter into a contract for the execution of the work embraced in this proposal, in the event the proposal of the bidder is accepted. Retention of such amount shall not be construed as a penalty or forfeiture.

The above bond or check shall be a guarantee that the bidder will, if necessary, promptly execute a satisfactory contract and furnish good and sufficient bonds. As soon as a satisfactory contract has been executed and the bonds furnished and accepted, the check or bond accompanying the proposal of the successful bidder will be returned to him. The certified or other checks or bid bonds of the unsuccessful bidders will be returned to them upon the acceptance of the bid of the successful bidder. If the successful bidder shall not enter into, execute, and deliver such a contract and furnish the required bonds within ten (10) days after receiving notice to do so, the certified or other check or bid bond shall immediately become the property of the City of Fort Lauderdale as liquidated damages. Retention of such amount shall not be construed as a penalty or forfeiture.

FILLING IN BIDS - All prices must be electronically submitted in the proposal pages, and all proposals must fully cover all items for which proposals are asked and no other. Bidders are required to state the names and places of residence of all persons interested, and if no other person is interested, the bidder shall distinctly state such fact and shall state that the proposal is, in all respects, fair and without collusion or fraud. Where more than one person is interested, it is required that all persons interested or their legal representative make all verification and subscribe to the proposal.

PRICES QUOTED: Deduct any discount offered and quote firm net unit prices. In the case of a discrepancy in computing the amount of the bid, the unit price quoted will govern. All prices quoted shall be F.O.B. destination, freight prepaid (Bidder pays and bears freight charges, Bidder owns goods in transit and files any claims), unless otherwise stated in Special Conditions. Each item must be bid separately. No attempt shall be made to tie any item or items contained in the ITB with any other business with the City.

BIDS FIRM FOR ACCEPTANCE: Bidder warrants, by virtue of bidding, that his bid and the prices quoted in his bid will be firm for acceptance by the City for a period of one hundred and twenty (120) days from the date of bid opening unless otherwise stated in the ITB. The City shall award contract within this time period or shall request to the recommended awarded vendor an extension to hold pricing, until products/services have been awarded.

ADDITIONAL ITEMS OR SERVICES: The City may require additional items or services of a similar nature, but not specifically listed in the contract. The Contractor agrees to provide such items or

INSTRUCTIONS TO BIDDERS (continued)

services, and shall provide the City prices on such additional items or services. If the price(s) offered are not acceptable to the City, and the situation cannot be resolved to the satisfaction of the City, the City reserves the right to procure those items or services from other vendors, or to cancel the contract upon giving the Contractor thirty (30) days written notice.

DELETION OR MODIFICATION OF SERVICES: The City reserves the right to delete any portion of the Contract at any time without cause, and if such right is exercised by the City, the total fee shall be reduced in the same ratio as the estimated cost of the work deleted bears to the estimated cost of the work originally planned. If work has already been accomplished on the portion of the Contract to be deleted, the Contractor shall be paid for the deleted portion on the basis of the estimated percentage of completion of such portion.

If the Contractor and the City agree on modifications or revisions to the task elements, after the City has approved work to begin on a particular task or project, and a budget has been established for that task or project, the Contractor will submit a revised budget to the City for approval prior to proceeding with the work.

CAUSES FOR REJECTION - No proposal will be canvassed, considered or accepted which, in the opinion of the City Commission, is informal or unbalanced, or contains inadequate or unreasonable prices for any items; each item must carry its own proportion of the cost as nearly as is practicable. Any alteration, erasure, interlineation, or failure to specify bids for all items called for in the schedule shall render the proposal informal.

REJECTION OF BIDS - The City reserves the right to reject any bid if the evidence submitted by the bidder, or if the investigation of such bidder, fails to satisfy the City that such bidder is properly qualified to carry out the obligations and to complete the work contemplated. Any or all proposals will be rejected, if there is reason to believe that collusion exists among bidders. A proposal will be considered irregular and may be rejected, if it shows serious omissions, alterations in form, additions not called for, conditions or unauthorized alternates, or irregularities of any kind. The City reserves the right to reject any or all proposals and to waive such technical errors as may be deemed best for the interests of the City.

BID PROTEST PROCEDURE - Any Bidder who is not recommended for award of a contract and who alleges a failure by the city to follow the city's procurement ordinance or any applicable law, may follow the protest procedure as found in the city's procurement ordinance within five (5) days after a notice of intent to award is posted on the city's web site at the following link: <http://www.fortlauderdale.gov/departments/finance/procurement-services/notices-of-intent-to-award>.

The complete protest ordinance may be found on the city's web site at the following link: https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2A_D_ARTVFI_DIV2PR_S2-182DIREPR

WITHDRAWALS - Any bidder may, without prejudice to himself, withdraw his proposal at any time prior to the expiration of the time during which proposals may be submitted. Such request for withdrawal must be in writing and signed in the same manner and by the same person who signed the proposal. After expiration of the period for receiving proposals, no proposal can be withdrawn, modified, or explained.

CONTRACT - The bidder to whom award is made shall execute a written contract to do the work and maintain the same in good repair until final acceptance by the proper authorities, and shall furnish

INSTRUCTIONS TO BIDDERS (continued)

good and sufficient bonds as specified within ten (10) days after receiving such contract for execution. If the bidder to whom the first award is made fails to enter into a contract as provided, the award may be annulled and the contract let to the next lowest bidder who is reliable, responsible, and responsive in the opinion of the City Commission, and that bidder shall fulfill every stipulation and obligation as if such bidder were the original party to whom award was made.

The contract shall provide that the Contractor agrees to correct any defective or faulty work or material, which may appear within one (1) year after completion of the work and receipt of final payment.

ENFORCEMENT OF SPECIFICATIONS - Copies of the specifications will be placed in the hands of all the assistants to the Engineer and Inspectors employed on the work, who shall enforce each and every requirement of the contract. Such assistants shall have no authority to vary from such requirements.

COPIES OF DRAWING PLANS - Copies of the drawing plans are on file in the Public Works Department, City Hall, 4th Floor, 100 N. Andrews Avenue, Fort Lauderdale, Florida 33301.

SURETY BOND – The Contractor shall execute and record in the public records of Broward County, Florida, a payment and performance bond in an amount at least equal to the Contract Price with a surety insurer authorized to do business in the State of Florida as surety, ("Bond"), in accordance with Section 255.05, Florida Statutes (2018), as may be amended or revised, as security for the faithful performance and payment of all of the Contractor's obligations under the Contract Documents.

The successful bidder shall furnish a performance and payment bond in compliance with Section 255.05, Florida Statutes, written by a Corporate Surety company, holding a Certificate of Authority from the Secretary of the Treasury of the United States as acceptable sureties on federal bonds, in an amount equal to the total amount payable by the terms of the contract, executed and issued by a Resident Agent licensed by and having an office in the State of Florida, representing such Corporate Surety, conditioned for the due and faithful performance of the work, and providing in addition to all other conditions, that if the Contractor, or his or its subcontractors, fail to duly pay for any labor, materials, or other supplies used or consumed by such Contractor, or his or its subcontractor or subcontractors, in performance of the work contracted to be done, the Surety will pay the same in the amount not exceeding the sum provided in such bonds, together with interest at the rate of fifteen percent (15%) per annum, and that they shall indemnify and save harmless the City of Fort Lauderdale to the extent of any and all payments in connection with carrying out of the contract, which the City may be required to make under the law.

The Contractor is required at all times to have a valid surety bond in force covering the work being performed. A failure to have such bond in force at any time shall constitute a default on the part of the Contractor. A bond written by a surety, which becomes disqualified to do business in the State of Florida, shall automatically constitute a failure on the part of the Contractor to meet the above requirements.

Such bond shall continue in effect for one (1) year after completion and acceptance of the work with liability equal to at least twenty-five percent (25%) of contract price, or an additional bond shall be conditioned that the Contractor will correct any defective or faulty work or material which appear within one (1) year after completion of the contract, upon notification by the City, except in contracts which are concerned solely with demolition work, in which cases twenty-five percent (25%) liability will not be applicable.

INSTRUCTIONS TO BIDDERS (continued)

AUDIT OF CONTRACTOR'S RECORDS - Upon execution of the Contract, the City reserves the right to conduct any necessary audit of the Contractor's records. Such an audit, or audits, may be conducted by the City or its representatives at any time prior to final payment, or thereafter, for a period up to three (3) years. The City may also require submittal of the records from either the Contractor, the Subcontractor, or both. For the purpose of this Section, records shall include all books of account, supporting documents and papers deemed necessary by the City to assure compliance with the contract provisions.

Failure of the Contractor or Subcontractor to comply with these requirements may result in disqualification or suspension from bidding for future contracts or disapproval as a Subcontractor at the option of the City.

The Contractor shall assure that each of its Subcontractors will provide access to its records pertaining to the project upon request by the City.

PERIODIC ESTIMATE FOR PARTIAL PAYMENT - After the Contractor has submitted a periodic estimate for partial payment, approved and certified by the Public Works Department, the City shall make payment in the manner provided in the Contract Documents and in accordance with Florida's Prompt Payment Act, Section 218, Florida Statutes.

RESERVATION FOR AWARD AND REJECTION OF BIDS - The City reserves the right to accept or reject any or all bids, part of bids, and to waive minor irregularities or variations to specifications contained in bids, and minor irregularities in the bidding process. The City also reserves the right to award the contract on a split order basis, lump sum basis, individual item basis, or such combination as shall best serve the interest of the City. The City reserves the right to make an award to the responsive and responsible bidder whose product or service meets the terms, conditions, and specifications of the ITB and whose bid is considered to best serve the City's interest. In determining the responsiveness of the offer and the responsibility of the Bidder, the following shall be considered when applicable: the ability, capacity and skill of the Bidder to perform as required; whether the Bidder can perform promptly, or within the time specified, without delay or interference; the character, integrity, reputation, judgment, experience and efficiency of the Bidder; the quality of past performance by the Bidder; the previous and existing compliance by the Bidder with related laws and ordinances; the sufficiency of the Bidder's financial resources; the availability, quality and adaptability of the Bidder's supplies or services to the required use; the ability of the Bidder to provide future maintenance, service or parts; the number and scope of conditions attached to the bid.

EARLY PROJECT COMPLETION INCENTIVE

The City reserves the right to or not to negotiate an incentive program with the awarded vendor for timely completion. The City is under no obligation to offer such an incentive.

MINORITY AND WOMEN BUSINESS ENTERPRISE PARTICIPATION AND BUSINESS - It is the desire of the City of Fort Lauderdale to increase the participation of minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the City does not have any preference or set aside programs in place, it is committed **to a policy of equitable participation for these firms**. The City of Fort Lauderdale wants to increase the participation of Minority Business Enterprises (MBE), Women Business Enterprises (WBE), and Small Business Enterprises (SBE) in its procurement activities. If your firm qualifies in accordance with the below definitions please indicate in the space provided in this ITB.

Minority Business Enterprise (MBE) "A Minority Business" is a business enterprise that is owned or controlled by one or more socially or economically disadvantaged persons. Such disadvantage may arise from cultural, racial, chronic economic circumstances or background or other similar cause. Such persons include, but are not limited to: Blacks, Hispanics, Asian Americans, and Native Americans.

INSTRUCTIONS TO BIDDERS (continued)

The term "Minority Business Enterprise" means a business at least fifty-one percent (51%) of which is owned by minority group members or, in the case of a publicly owned business, at least fifty-one percent (51%) of the stock of which is owned by minority group members. For the purpose of the preceding sentence, minority group members are citizens of the United States who include, but are not limited to: Blacks, Hispanics, Asian Americans, and Native Americans.

Women Business Enterprise (WBE) a "Women Owned or Controlled Business" is a business enterprise at least fifty-one percent (51%) of which is owned by females or, in the case of a publicly owned business, at least fifty-one percent (51%) of the stock of which is owned by females.

Small Business Enterprise (SBE) "Small Business" means a corporation, partnership, sole proprietorship, or other legal entity formed for the purpose of making a profit, which is independently owned and operated, has either fewer than 100 employees or less than \$1,000,000 in annual gross receipts.

BLACK includes persons having origins in any of the Black racial groups of Africa.

WHITE includes persons whose origins are Anglo-Saxon and Europeans and persons of Indo-European decent including Pakistani and East Indian.

HISPANIC includes persons of Mexican, Puerto Rican, Cuban, Central and South American, or other Spanish culture or origin, regardless of race.

NATIVE AMERICAN includes persons whose origins are American Indians, Eskimos, Aleuts, or Native Hawaiians.

ASIAN AMERICAN includes persons having origin in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.

DEBARRED OR SUSPENDED BIDDERS OR PROPOSERS - The bidder or proposer certifies, by submission of a response to this solicitation, that neither it nor its principals and subcontractors are presently debarred or suspended by any Federal department or agency.

LOBBYING ACTIVITIES - ALL CONTRACTORS PLEASE NOTE: Any contractor submitting a response to this solicitation must comply, if applicable, with City of Fort Lauderdale Ordinance No. C-00-27 & Resolution No. 07-101, Lobbying Activities. Copies of Ordinance No., C-00-27, and Resolution No. 07-101, may be obtained from the City Clerk's Office on the 7th Floor of City Hall, 100 N. Andrews Avenue, Fort Lauderdale, Florida. The ordinance may also be viewed on the City's website at http://www.fortlauderdale.gov/clerk/LobbyistDocs/lobbyist_ordinance.pdf

PROJECT 12469

SPECIAL CONDITIONS**01. PURPOSE**

The City of Fort Lauderdale, Florida (City) is seeking bids from qualified bidders, hereinafter referred to as the Contractor, to provide mechanical integrity testing of five deep injection wells and replace five flowmeters and replace five pressure indicating transmitters for the City's Public Works Department, in accordance with the terms, conditions, and specifications contained in this Invitation To Bid (ITB).

This project is located at 1000 SE 21 Street, Fort Lauderdale, Florida, 33316 in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, furnishing all labor, materials and equipment to perform mechanical integrity testing (MIT) of five (5) existing Class I injection wells. The Injection Wells have a 24-inch outside diameter (OD), 0.500-inch wall thickness injection casing set to total depths of 2,800 to 2,820 feet below land surface (bls) and were constructed with a nominal 22-inch diameter open borehole extending from the bottom of the casing to approximately 3,305 to 4,010 feet bls. Also, new flowmeters, pressure indicating transmitters, repair concrete pipe exterior, piping and surge tank painting, and required appurtenances at each injection well.

02. TRANSACTION FEES

The City of Fort Lauderdale uses BidSync (www.bidsync.com) to distribute and receive bids and proposals. There is no charge to vendors/contractors to register and participate in the solicitation process, nor will any fees be charged to the awarded contractor.

03. SUBMISSION OF BIDS

It is the sole responsibility of the Contractor to ensure that their bid is submitted electronically through BidSync at www.bidsync.com and that any bid security not submitted via BidSync reaches the City of Fort Lauderdale, Procurement Services Division, 6th floor, Room 619, 100 N. Andrews Avenue, Fort Lauderdale, FL 33301, in a sealed envelope marked on the outside with the ITB solicitation number and Contractor's name, no later than the time and date specified in this solicitation. **PAPER BID SUBMITALS WILL NOT BE ACCEPTED. PLEASE SUBMIT YOUR BID RESPONSE ELECTRONICALLY.**

04. INFORMATION OR CLARIFICATION

For information concerning procedures for responding to this solicitation, contact **Ginah Joseph, Senior Procurement Specialist** at (954) 828-4797 or email at gjoseph@fortlauderdale.gov. Such contact shall be for clarification purposes only.

For information concerning technical specifications please utilize the question/answer feature provided by BidSync at www.bidsync.com. Questions of a material nature must be received prior to the cut-off date specified in the solicitation. Material changes, if any, to the scope of services or bidding procedures will only be transmitted by written addendum. (See addendum section of BidSync Site). **Contractors please note:** No part of your bid can be submitted via FAX. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered

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evidence that the Contractor has familiarized himself with the nature and extent of the work, and the equipment, materials, and labor required. The entire bid response must be submitted in accordance with all specifications contained in this solicitation. The questions and answers submitted in BidSync shall become part of any contract that is created from this ITB.

05. CONTRACT TIME

- 5.1 The Contractor recognizes that TIME IS OF THE ESSENCE. The Work shall commence within **7** calendar days of the date of the Notice to Proceed.
- 5.2 The Work shall be Substantially Completed within **91** calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.
- 5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within **119** calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

The City of Fort Lauderdale reserves the right to waive any informality in any bid and to reject any or all bids. The City of Fort Lauderdale reserves the right to reduce or delete any of the bid items.

At time of award of contract, the City reserves the right to set a maximum dollar limit that may be expended on this project. Contract quantities of any or all items may be increased, reduced, or eliminated to adjust the contract amount to coincide with the amount of work necessary or to bring the contract value to within the established limit. All quantities are estimated and the City reserves the right to increase, reduce, or eliminate the contract quantities in any amount.

The undersigned bidder affirms that he has or will obtain all equipment necessary to complete the work described, that he has or will obtain all required permits and licenses from the appropriate agencies, and that his firm is authorized to do business in the State of Florida.

The City of Fort Lauderdale reserves the right to waive any informality in any bid and to reject any or all bids. The City of Fort Lauderdale reserves the right to reduce or delete any of the bid items.

At time of award of contract, the City reserves the right to set a maximum dollar limit that may be expended on this project. Contract quantities of any or all items may be increased, reduced, or eliminated to adjust the contract amount to coincide with the amount of work necessary or to bring the contract value to within the established limit. All quantities are estimated and the City reserves the right to increase, reduce, or eliminate the contract quantities in any amount.

The undersigned bidder affirms that he has or will obtain all equipment necessary to complete the work described, that he has or will obtain all required permits and licenses

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from the appropriate agencies, and that his firm is authorized to do business in the State of Florida.

06. BID SECURITY

A certified check, cashier's check, bank officer's check or bid bond for **FIVE** percent (**5%**) of the bid amount, made payable to the City of Fort Lauderdale, Florida, shall accompany each proposal.

07. REQUIRED LICENSES/CERTIFICATIONS

Contractor must possess the following licenses/certifications to be considered for award.

Geophysical Contractor holding a valid State of Florida Water Well Contractor License issued by the South Florida Water Management District

*Note: Contractor **must** have proper licensing and be able to provide evidence of same, if requested, at time of award.*

08. SPECIFIC EXPERIENCE REQUIRED

The following expertise is required to be considered for this contract. Specific references attesting to this expertise must be submitted with bid.

The contractor shall have at least five (5) years previous construction experience in constructing and testing wells and shall have tested not less than 5 wells of similar type and capacity.

Bidder shall submit proof of construction experience for a minimum of three (3) projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address.

NOTE: REFERENCES SHALL NOT INCLUDE ONLY CITY OF FORT LAUDERDALE EMPLOYEES OR WORK PERFORMED FOR THE CITY. THE CITY IS ALSO INTERESTED IN WORK EXPERIENCE AND REFERENCES FROM ENTITIES OTHER THAN THE CITY OF FORT LAUDERDALE.

By signing this bid solicitation, contractor is affirming that this expertise will be provided for this contract at no additional charge.

09. BID ALLOWANCE

Allowance for permits: Payments will be made to the contractor based on the actual cost of permits upon submission of paid permit receipts. The City shall not pay for other costs related to obtaining or securing permits.

The amount indicated is intended to be sufficient to cover the entire project. If the City Permit fees exceed the allowance indicated, the City will reimburse the contractor the actual amount of City Permit Fees required for project completion.

Allowance	\$
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Permit fee allowance	\$50,000
Other: Allowance for labor, materials, equipment and services necessary for modification or extra work required to complete the Project because of unforeseeable conditions, unforeseeable conflicts between existing elements of work and the proposed work	\$50,000
TOTAL	\$100,000.00

Note: The City will add this allowance to your bid.

10. INSURANCE REQUIREMENTS (See Article 10, Bonds and Insurance, of the Contract for details)
Insurance

- 10.1 As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, the Contractor, at the Contractor's sole expense, shall provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of the Contractor. The Contractor shall provide the City a certificate of insurance evidencing such coverage. The Contractor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under this Agreement. All insurance policies shall be from insurers authorized to write insurance policies in the State of Florida and that possess an A.M. Best rating of A-, VII or better. All insurance policies are subject to approval by the City's Risk Manager.

The coverages, limits, and endorsements required herein protect the interests of the City, and these coverages, limits, and endorsements may not be relied upon by the Contractor for assessing the extent or determining appropriate types and limits of coverage to protect the Contractor against any loss exposure, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the City's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Agreement.

The following insurance policies and coverages are required:

10.1.1 Commercial General Liability

Coverage must be afforded under a Commercial General Liability policy with limits not less than:

- \$1,000,000 each occurrence and \$2,000,000 aggregate for Bodily Injury, Property Damage, and Personal and Advertising Injury
- \$1,000,000 each occurrence and \$2,000,000 aggregate for Products and Completed Operations

Policy must include coverage for Contractual Liability and Independent Contractors.

The City and the City's officers, employees, and volunteers are to be covered as additional insureds with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage

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with respect to liability arising out of activities performed by or on behalf of the Contractor. The coverage shall contain no special limitation on the scope of protection afforded to the City or the City's officers, employees, and volunteers.

10.1.2 Business Automobile Liability

Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than \$1,000,000 combined single limit each accident.

If the Contractor does not own vehicles, the Contractor shall maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

10.1.3 Workers' Compensation and Employer's Liability

Coverage must be afforded per Chapter 440, Florida Statutes. Any person or entity performing work for or on behalf of the City must provide Workers' Compensation insurance. Exceptions and exemptions will be allowed by the City's Risk Manager, if they are in accordance with Florida Statute.

The Contractor waives, and the Contractor shall ensure that the Contractor's insurance carrier waives, all subrogation rights against the City and the City's officers, employees, and volunteers for all losses or damages. The City requires the policy to be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or equivalent.

The Contractor must be in compliance with all applicable State and federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable.

Insurance Certificate Requirements

- a. The Contractor shall provide the City with valid Certificates of Insurance (binders are unacceptable) no later than thirty (30) days prior to the start of work contemplated in this Agreement.
- b. The Contractor shall provide to the City a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.
- c. In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the Contractor to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.
- d. In the event the Agreement term goes beyond the expiration date of the insurance policy, the Contractor shall provide the City with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The City reserves the right to suspend the Agreement until this requirement is met.
- e. The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
- f. The City shall be named as an Additional Insured on all liability policies, with the exception of Workers' Compensation.

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- g. The City shall be granted a Waiver of Subrogation on the Contractor's Workers' Compensation insurance policy.
- h. The title of the Agreement, Bid/Contract number, event dates, or other identifying reference must be listed on the Certificate of Insurance.

The Certificate Holder should read as follows:

City of Fort Lauderdale
100 N. Andrews Avenue
Fort Lauderdale, FL 33301

The Contractor has the sole responsibility for the payment of all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. Any costs for adding the City as an Additional Insured shall be at the Contractor's expense.

If the Contractor's primary insurance policy/policies do not meet the minimum requirements, as set forth in this Agreement, the Contractor may provide evidence of an Umbrella/Excess insurance policy to comply with this requirement.

The Contractor's insurance coverage shall be primary insurance as applied to the City and the City's officers, employees, and volunteers. Any insurance or self-insurance maintained by the City covering the City, the City's officers, employees, or volunteers shall be non-contributory.

Any exclusion or provision in the insurance maintained by the Contractor that excludes coverage for work contemplated in this Agreement shall be unacceptable and shall be considered breach of contract.

All required insurance policies must be maintained until the contract work has been accepted by the City, or until this Agreement is terminated, whichever is later. Any lapse in coverage shall be considered breach of contract. In addition, Contractor must provide to the City confirmation of coverage renewal via an updated certificate should any policies expire prior to the expiration of this Agreement. The City reserves the right to review, at any time, coverage forms and limits of Contractor's insurance policies.

The Contractor shall provide notice of any and all claims, accidents, and any other occurrences associated with this Agreement shall be provided to the Contractor's insurance company or companies and the City's Risk Management office as soon as practical.

It is the Contractor's responsibility to ensure that any and all of the Contractor's independent contractors and subcontractors comply with these insurance requirements. All coverages for independent contractors and subcontractors shall be subject to all of the applicable requirements stated herein. Any and all deficiencies are the responsibility of the Contractor.

NOTE: CITY PROJECT NUMBER AND NAME MUST APPEAR ON EACH CERTIFICATE, AND THE CITY OF FORTLAUDERDALE MUST BE NAMED ON THE CERTIFICATE AS AN "ADDITIONAL INSURED" ON ALL LIABILITY POLICIES, WITH THE EXCEPTION OF WORKERS' COMPENSATION.

PROJECT 12469

A Sample Insurance Certificate shall be included with the proposal to demonstrate the firm's ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the insurance companies' names for all required coverage, and the dollar amounts of the coverage.

- 11. PERFORMANCE AND PAYMENT BOND: 100%**
Number of awards anticipated: 1

12. CITY PROJECT MANAGER

The Project Manager is hereby designated by the City as **Herbert Stanley** whose address is 949 NW 38th Street, Fort Lauderdale, FL 33309, telephone number: (954) 828-6801, and email address is hstanley@fortlauderdale.gov. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement.

- 13. LIQUIDATED DAMAGES** *(See Article 16, Liquidated Damages, of the Contract for details)*

Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the City the sum of **Five Hundred Dollars (\$500.00)** for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay is caused by the Contractor. (See Article 16, Liquidated Damages Clause, of the Contract)

- 14. PAYMENT** *(See Article 7, Payment, of the Contract for other details)*

The City shall make payment to the Contractor through utilization of the City's P-Card Program. The City has implemented a Purchasing Card (P-Card) Program utilizing both VISA and MASTERCARD networks. Purchases from this contract will be made utilizing the City's Purchasing Card. Contractor will receive payment from the purchasing card in the same manner as other credit card purchases. Accordingly, bidders must presently have the ability to accept these credit cards or take whatever steps necessary to implement the ability before the start of the contract term, or contract award by the City. The City reserves the right to revise this program as necessary. All costs associated with the Contractor's participation in this purchasing program shall be borne by the Contractor. The City reserves the right to revise this program as necessary.

- 15. WORK SCHEDULE (including overtime hours): _____**

Regular work hours: **8:00 am to 5:00 pm, Monday through Friday.**
City Inspector Hours: **8:00 am to 4:30 pm, Monday through Friday.**

Any inspection requested by the contractor outside those hours will be considered overtime to be paid by the Contractor.

- 16. INSPECTION OVERTIME COST: \$219/Hour**

**CITY OF FORT LAUDERDALE
CONSTRUCTION AGREEMENT**

THIS AGREEMENT made and entered into this _____ day of _____, 20____, by and between the City of Fort Lauderdale, a Florida municipal corporation (City) and _____, (Contractor), (parties);

WHEREAS, the City desires to retain a contractor for the Project as expressed in its Invitation to Bid No., _____, Project Number, _____, which was opened on _____; and,

WHEREAS, the Contractor has expressed its willingness and capability to perform the necessary work to accomplish the Project.

NOW, THEREFORE, the City and the Contractor, in consideration of the mutual covenants and conditions contained herein and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, agree as follows:

ARTICLE 1 – DEFINITIONS

Whenever used in this Agreement or in other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural forms:

- 1.1 Agreement – This written Agreement between the City and the Contractor covering the work to be performed including other Contract Documents that are attached to or incorporated in the Agreement.
- 1.2 Application for Payment – The form accepted by the City which is to be used by the Contractor in requesting progress or final payment and which is to include such supporting documentation as is required by the Contract Documents
- 1.3 Approve – The word approve is defined to mean review of the material, equipment or methods for general compliance with design concepts and with the information given in the Contract Documents. It does not imply a responsibility on the part of the City to verify in every detail conformance with plans and specifications.
- 1.4 Bid – The offer or Bid of the Contractor submitted on the prescribed form setting forth the total prices for the Work to be performed.
- 1.5 Bid Documents – This Agreement, advertisement for Invitation to Bids, the Instructions to Bidders, the Bid Form (with supplemental affidavits and agreements), the Contract Forms, General Conditions, the Supplementary Conditions, the Specifications, and the Plans, which documents all become an integral part of the Contract Documents.
- 1.6 Certificate of Substantial Completion - Certificate provided by the City certifying that all Work, excluding the punch list items, has been completed, inspected, and accepted by the City.

- 1.7 Change Order - A change order is defined as a written order to a contractor approved by the City, authorizing a revision of an underlying agreement between the City and a contractor that is directly related to the original scope of work or an adjustment in the original contract price or the contract time directly related to the original scope of work, issued on or after the effective date of the contract.
- 1.8 City – The City of Fort Lauderdale, Florida, including but not limited to its employees, agents, officials, representatives, contractors, subcontractors, volunteers, successors and assigns, with whom the Contractor has entered into the Agreement and for whom the Work is to be provided.
- 1.9 Contract Documents – The Contract Documents shall consist of this Agreement, Exhibits to this Agreement, Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance, Notice of Award and Notice to Proceed, General Conditions as amended by the Special Conditions, Technical Specifications, Plans/Drawings, Addenda, Bid Form and supplement Affidavits and Agreements, all applicable provisions of State and Federal Law and any modification, including Change Orders or written amendments duly delivered after execution of Agreement, Invitation to Bid, Instructions to Bidders and Bid Bond, Contractor's response to the City's Invitation to Bid, Schedule of Completion, Schedule of Values, all amendments, modifications and supplements, change orders and work directive changes issued on or after the Effective Date of the Agreement, as well as any additional documents that are required to be submitted under the Agreement.
- Permits on file with the City and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement. A copy of all permits shall be given to the City for inclusion in the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.
- 1.10 Contract Price – The monies payable to the Contractor by the City under the Contract Documents and in accordance with the line item unit prices listed in the Bid.
- 1.11 Contract Time – The number of calendar days stated in the Agreement for the completion of the Work. The dates on which the work shall be started and shall be completed as stated in the Notice to Proceed.
- 1.12 Contractor – The person, firm, company, or corporation with whom the City has entered into the Agreement, including but not limited to its employees, agents, representatives, contractors, subcontractors, their subcontractors and their other successors and assigns.
- 1.13 Day – A calendar day of twenty-four (24) hours ending at midnight.
- 1.14 Defective – An adjective which when modifying the word "Work" refers to work that is unsatisfactory, faulty, or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to the Project Manager's recommendation of final payment.

- 1.15 Effective Date of the Agreement – The effective date of the agreement shall be the date the City Commission approves the work. The contractor shall provide all required payment and performance bonds and insurances to the City within ten (10) Calendar days following the City Commission approval. Upon verification of all bonds and insurances, the City will issue a notice to proceed (NTP) to the Contractor. Contract time will commence on the date when the Notice to Proceed is issued. The Contractor shall commence the work immediately upon receipt of the Notice to Proceed. Failure of the contractor to proceed with the work will constitute non-performance of the Contractor and would be ground for termination of the contract per ARTICLE 17 of the Agreement.
- 1.16 Final Completion Date – The date the Work is completed, including completion of the final punch list, and delivered along with those items specified in the Contract Documents and is accepted by the City.
- 1.17 Hazardous Materials (HAZMAT) - Any solid, liquid, or gaseous material that is toxic, flammable, radioactive, corrosive, chemically reactive, or unstable upon prolonged storage in quantities that could pose a threat to life, property, or the environment defined in Section 101(14) of Comprehensive Environmental Response, Compensation and Liability Act of 1980 and in 40 CFR 300.6. Also defined by 49 CFR 171.8 as a substance or material designated by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce and which has been so designated.
- 1.18 Hazardous Substance - As defined by Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act; any substance designated pursuant to Section 311(b) (2) (A) of the Clean Water Act; any element, compound, mixture, solution or substance designated pursuant to Section 102 identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act {but not including any waste listed under Section 307[a] of the Clean Water Act}; any hazardous air pollutant listed under Section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture pursuant to Section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
- 1.19 Hazardous Waste - Those solid wastes designated by OSHA in accordance with 40 CFR 261 due to the properties of ignitability, corrosivity, reactivity, or toxicity. Any material that is subject to the Hazardous Waste Manifest requirements of the EPA specified in 40 CFR Part 262.
- 1.20 Holidays - Those designated non-work days as established by the City Commission of the City of Fort Lauderdale.
- 1.21 Inspection – The term “inspection” and the act of inspecting as used in this Agreement is defined to mean the examination of construction to ensure that it conforms to the design concept expressed in the plans and specifications. This term shall not be construed to mean supervision, superintending and/or overseeing.

- 1.22 Notice of Award - The written notice by City to the Contractor stating that upon compliance by the Contractor with the conditions precedent enumerated therein, within the time specified that the City will sign and deliver this Agreement.
- 1.23 Notice to Proceed – A written notice given by the City to the Contractor fixing the date on which the Contract Time will commence to run and on which the Contract Time will end.
- 1.24 Plans - The drawings which show the character and scope of the work to be performed and which have been prepared or approved by the City and are referred to in the Contract Documents.
- 1.25 Premises (otherwise known as Site or Work Site) – means the land, buildings, facilities, etc. upon which the Work is to be performed.
- 1.26 Project – The total construction of the Work to be provided as defined in the Contract Documents.
- 1.27 Project Manager - The employee of the City, or other designated individual who is herein referred to as the Project Manager, will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the contract Documents in connection with completion of the Work in accordance with this Agreement. The Project Manager, or designee, shall be the authorized agent for the City unless otherwise specified.
- 1.28 Punch List - The City's list of Work yet to be done or be corrected by the Contractor, before the Final Completion date can be determined by the City.
- 1.29 Record Documents - A complete set of all specifications, drawings, addenda, modifications, shop drawings, submittals and samples annotated to show all changes made during the construction process.
- 1.30 Record Drawings or "As-Built" - A set of drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor. These documents will be signed and sealed by the Engineer of Record or a Professional Land Surveyor licensed in the State of Florida.
- 1.31 Substantially Completed Date – A date when the Contractor has requested in writing, stating that the Work is substantially completed and is ready for an inspection and issuance of a final punch list for the Project.
- 1.32 Work – The entire completed delivered product or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating material and equipment into the product, all as required by the Contract Documents.

ARTICLE 2 – SCOPE OF WORK

- 2.1 The Contractor shall complete all work as specified or indicated in the Contract Documents. The Project for which the Work under the Contract Documents may be the whole or only part is generally described as follows:

GT LOHMEYER WWTP DEEP INJECTION WELLS MECHANICAL INTEGRITY TEST
ITB #12249-293, PROJECT #12469

- 2.2 All Work for the Project shall be constructed in accordance with the Drawings and Specifications. The Work generally involves:

PROJECT DESCRIPTION

This project is located at 1000 SE 21 Street, Fort Lauderdale, Florida, 33316 in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, furnishing all labor, materials and equipment to perform mechanical integrity testing (MIT) of five (5) existing Class I injection wells. The Injection Wells have a 24-inch outside diameter (OD), 0.500-inch wall thickness injection casing set to total depths of 2,800 to 2,820 feet below land surface (bls) and were constructed with a nominal 22-inch diameter open borehole extending from the bottom of the casing to approximately 3,305 to 4,010 feet bls. Also, new flowmeters, pressure indicating transmitters, repair concrete pipe exterior, piping and surge tank painting, and required appurtenances at each injection well.

- 2.3 Within ten (10) days of the execution of this Agreement, the Contractor shall submit a Construction Schedule, Schedule of Values and a listing of those subcontractors that will be utilized by the Contractor. The general sequence of the work shall be submitted by the Contractor and approved by the City before any work commences. The City reserves the right to issue construction directives necessary to facilitate the Work or to minimize any conflict with operations.

ARTICLE 3 – PROJECT MANAGER

- 3.1 The Project Manager is hereby designated by the City as Herbert Stanley, whose address is 949 NW 38th Street, Fort Lauderdale, FL 33309, telephone number: (954) 828-6801, and email address is hstanley@fortlauderdale.gov. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement.

ARTICLE 4 – CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between the City and Contractor are attached to this Agreement, are made a part hereof and consist of the following:

- 4.1 This Agreement.
- 4.2 The Contract Documents may only be altered, amended, or repealed in accordance with the specific provisions of the terms of this Agreement.
- 4.3 Exhibits to this Agreement: (Plans sheets [] to [] inclusive).

- 4.4 Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance.
- 4.5 Notice of Award and Notice to Proceed.
- 4.6 General Conditions as amended by the Special Conditions.
- 4.7 Technical Specifications.
- 4.8 Plans/Drawings.
- 4.9 Addenda number _____ through _____, inclusive.
- 4.10 Bid Form and supplement Affidavits and Agreements.
- 4.11 All applicable provisions of State and Federal Law.
- 4.12 Invitation to Bid No., _____, Instructions to Bidders, and Bid Bond.
- 4.13 Contractor's response to the City's Invitation to Bid No., _____, dated _____.
- 4.14 Schedule of Completion and Schedule of Values.
- 4.15 All amendments, modifications and supplements, change orders and work directive changes issued on or after the Effective Date of the Agreement.
- 4.16 Any additional documents that are required to be submitted under the Agreement.
- 4.17 Permits on file with the City and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement. A copy of all permits shall be given to the City for inclusion in the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

In the event of any conflict between the documents or any ambiguity or missing specification or instruction, the following priority is established:

- a. Specific direction from the City Manager (or designee).
- b. Approved change orders, addenda or amendments.
- c. Specifications (quality) and Drawings (location and quantity).
- d. Supplemental conditions or special terms.
- e. General Terms and Conditions.
- f. This Agreement dated _____ and any attachments.

- g. Invitation to Bid No., _____, and the specifications prepared by the City.
- h. Contractor's response to the City's Invitation to Bid No., _____, dated _____.
- i. Schedule of Values.
- j. Schedule of Completion.

If during the performance of the Work, Contractor finds a conflict, error or discrepancy in the Contract Documents, Contractor shall so report to the Project Manager, in writing, at once and before proceeding with the Work affected shall obtain a written interpretation or clarification from the City.

It is the intent of the specifications and plans to describe a complete Project to be constructed in accordance with the Contract Documents. Any Work that may reasonably be inferred from the specifications or plans as being required to produce the intended result shall be supplied whether or not it is specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials, or equipment, such works shall be interpreted in accordance with such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or associations, or to the code of any governmental authority whether such reference be specific or implied, shall mean the latest standard specification, manual or code in effect as of the Effective Date of this Agreement, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of the City, the Contractor, or any of their agents or employees from those set forth in the Contract Documents.

ARTICLE 5 – CONTRACT TIME

- 5.1 The Contractor recognizes that **TIME IS OF THE ESSENCE**. The Work shall commence within **7** calendar days of the date of the Notice to Proceed.
- 5.2 The Work shall be Substantially Completed within **91** calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.
- 5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within **119** calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

ARTICLE 6 – CONTRACT PRICE

- 6.1 City shall pay Contractor for performance of the Work in accordance with Article 7, subject to additions and deletions by Change Order, as provided for in this Agreement.
- 6.2 The parties expressly agree that the Contract Price, which shall not exceed the amount of \$ _____, constitutes the total maximum compensation payable to

Contractor for performing the Work, plus any Work done pursuant to a Change Order. The Contract Price is in accordance with the line item unit prices listed in the Bid. Line items are based on a unit price cost multiplied by a defined quantity. Any additional duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change to the Contract Price.

- 6.3 The Contract Price constitutes the compensation payable to Contractor for performing the Work plus any Work done pursuant to a Change Order. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change in the Contract price.

ARTICLE 7 – PAYMENT

- 7.1 Contractor shall submit Applications for Payment in accordance with the Contract Documents. Applications for Payment will be processed by City as provided in the General Conditions.
- 7.2 Progress Payments. City shall make progress payments on account of the Contract Price on the basis of Contractor's monthly Applications for Payment, which shall be submitted by the Contractor between the first (1st) and the tenth (10th) day after the end of each calendar month for which payment is requested. All progress payments will be made on the basis of the progress of the Work completed.
- 7.3 Prior to Final Completion, progress payments will be made in an amount equal to ninety percent (90%) of the value of Work completed less in each case the aggregate of payments previously made.
- 7.4 Final Payment. Upon final completion of the Work in accordance with the General Conditions, as may be supplemented, the City shall pay Contractor an amount sufficient to increase total payments to one-hundred percent (100%) of the Contract Price. However, not less than ten percent (10%) of the Contract Price shall be retained until Record Drawings (as-builts), specifications, addenda, modifications and shop drawings, including all manufacturers' instructional and parts manuals are delivered to and accepted by the City.
- 7.5 City may withhold, in whole or in part, payment to such extent as may be necessary to protect itself from loss on account of:
- 7.5.1 Defective work not remedied.
 - 7.5.2 Claims filed or reasonable evidence indicating probable filing of claims by other parties against Contractor or City because of Contractor's performance.
 - 7.5.3 Failure of Contractor to make payments properly to Subcontractors or for material or labor.
 - 7.5.4 Damage to another contractor not remedied.
 - 7.5.5 Liquidated damages and costs incurred by Consultant for extended construction administration, if applicable.
 - 7.5.6 Failure of Contractor to provide any and all documents required by the Contract Documents.

When the above grounds are removed or resolved satisfactory to the Project Manager, payment shall be made in whole or in part.

- 7.6 The City shall make payment to the Contractor in accordance with the Florida Prompt Payment Act, Section 218.70, Florida Statutes.
- 7.7 The City shall make payment to the Contractor through utilization of the City's P-Card Program. The City has implemented a Purchasing Card Program utilizing both VISA and MASTERCARD networks. Purchases made from this Contract shall be made using the City's Purchasing Card. Contractor will receive payment from the purchasing card in the same manner as other credit card purchases. Accordingly, bidders must presently have the ability to accept these credit cards or take whatever steps necessary to implement the ability before the start of the contract term, or contract award by the City. The City reserves the right to revise this program as necessary.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

In order to induce the City to enter into this Agreement, Contractor makes the following representations upon which the City has relied:

- 8.1 Contractor is qualified in the field of public construction and in particular to perform the Work and services set forth in this Agreement.
- 8.2 Contractor has visited the Work Site, has conducted extensive tests, examinations and investigations and represents and warrants a thorough familiarization with the nature and extent of the Contract Documents, the Work, locality, soil conditions, moisture conditions and all year-round local weather and climate conditions (past and present), and, in reliance on such tests, examination and investigations conducted by Contractor and the Contractor's experts, has determined that no conditions exist that would in any manner affect the Proposed Price and that the project can be completed for the Proposed Price submitted within the Contract Time as defined in this Agreement. Furthermore, Contractor warrants and confirms that he is totally familiar with, understands and obligates Contractor to comply with all federal, state and local laws, ordinances, rules, regulations and all market conditions that affect or may affect the cost and price of materials and labor needed to fulfill all provisions of this Agreement or that in any manner may affect cost, progress or performance of the Work.
- 8.3 The Contractor has satisfied itself as to the nature and location of the Work under the Contract Documents, the general and local conditions of the Project, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, and roads, the conformation and conditions at the ground based on City provided reports, the type of equipment and facilities needed preliminary to and during the prosecution of the Work and all other matters which can in any way affect the Work or the cost thereof under the Contract Documents.
- 8.4 The Contractor has also studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Works, and finds and has further determined that no

conditions exist that would in any manner affect the Proposed Price and that the project can be completed for the Proposed Price submitted.

- 8.5 Contractor has made or caused to be made examinations, investigations, tests and studies of such reports and related data in addition to those referred to in Paragraphs 8.2, 8.3 and 8.4 above as he deems necessary for the performance of the Work at the Contract Prices, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are, or will be, required by Contractor for such purposes.
- 8.6 Contractor has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.
- 8.7 Contractor has given City written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution by City is acceptable to the Contractor.

8.8 Labor

- 8.8.1 The Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The Contractor shall at all times maintain good discipline and order at the site.
- 8.8.2 The Contractor shall, at all times, have a competent superintendent, capable of reading and thoroughly understanding the drawings and specifications, as the Contractor's agent on the Work, who shall, as the Contractor's agent, supervise, direct and otherwise conduct the Work.
- 8.8.3 The Contractor shall designate the superintendent on the job to the City, in writing, immediately after receipt of the Notice to Proceed. The Contractor understands and agrees that the superintendent's physical presence on the job site is indispensable to the successful completion of the Work. If the superintendent is frequently absent from the job site, the Project Manager may deliver written notice to the Contractor to stop work or terminate the Contract in accordance with Article 17.
- 8.8.4 The Contractor shall assign personnel to the job site that have successfully completed training programs related to trench safety, confined space and maintenance of traffic. A certified "competent person" shall be assigned to the job site. Personnel certified by the International Municipal Signal Associations with Florida Department of Transportation qualifications are required relative to maintenance of traffic. Failure to pursue the Work with the properly certified supervisory staff may result in notice to stop work or terminate the Contract in accordance with Article 17.

8.9 Materials:

- 8.9.1 The Contractor shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of Work
- 8.9.2 All material and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. Suppliers shall be selected and paid by the Contractor; the City reserves the right to approve all suppliers and materials.
- 8.10 Work Hours: Except in connection with the safety or protection of persons, or the Work, or property at the site or adjacent thereto, and except as otherwise indicated in the Supplementary Conditions, all work at the site shall be performed during regular working hours between 7 a.m. and 6:00 p.m., Monday through Friday. The Contractor will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday (designated by the City of Fort Lauderdale) without the Project Manager's written consent at least seventy-two (72) hours in advance of starting such work. If the Project Manager permits overtime work, the Contractor shall pay for the additional charges to the City with respect to such overtime work. Such additional charges shall be a subsidiary obligation of the Contractor and no extra payment shall be made to the Contractor for overtime work. It shall be noted that the City's Inspector work hours are from 8:00 a.m. to 4:30 p.m. and any Work requiring inspection oversight being performed outside of this timeframe shall be paid for by the Contractor as Inspector overtime. The cost to the Contractor to reimburse the City for overtime inspection is established at direct-labor and overtime costs for each person or inspector required. Incidental overtime costs for engineering, testing and other related services will also be charged to the Contractor at the actual rate accrued.
- 8.11 Patent Fee and Royalties: The 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, or any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. The Contractor hereby expressly binds himself or itself to indemnify and save harmless the City from all such claims and fees and from any and all suits and action of every name and description that may be brought against City on account of any such claims, fees, royalties, or costs for any such invention or patent, and from any and all suits or actions that may be brought against said City for the infringement of any and all patents or patent rights claimed by any person, firm corporation or other entity.
- 8.12 Permits: The Contractor shall obtain and pay for all permits and licenses. There shall be no allowance for Contractor markup, overhead or profit for permits and licenses. The Contractor shall pay all government charges which are applicable at the time of opening of proposals. It shall be the responsibility of the Contractor to secure and pay for all necessary licenses and permits of a temporary nature necessary for the prosecution of Work.
- 8.13 Law and Regulations: The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the Work. If the Contractor observes that the specifications or plans are at variance therewith, the Contractor shall give the

Project Manager prompt written notice thereof, and any necessary changes shall be adjusted by any appropriate modifications. If the Contractor performs any work knowing or having reason to know that it is contrary to such laws, ordinances, rules and regulations, and without such notice to the Project Manager, the Contractor shall bear all costs arising therefrom; however, it shall not be the Contractor's primary responsibility to make certain that the specifications and plans are in accordance with such laws, ordinances, rules and regulations.

- 8.14 Taxes: The Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the laws of the City of Fort Lauderdale, County of Broward, State of Florida.
- 8.15 Contractor Use of Premises: The Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits and/or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

The Contractor shall not enter upon private property for any purpose without first securing the permission of the property owner in writing and furnishing the Project Manager with a copy of said permission. This requirement will be strictly enforced, particularly with regard to such vacant properties as may be utilized for storage or staging by the Contractor.

The Contractor shall conduct his work in such a manner as to avoid damage to adjacent private or public property. Any damage to existing structures of work of any kind, including permanent reference markers or property corner markers, or the interruption of a utility service, shall be repaired or restored promptly at no expense to the City or property owner.

The Contractor will preserve and protect all existing vegetation such as trees, shrubs and grass on or adjacent to the site which do not reasonably interfere with the construction, as determined by the Project Manager. The Contractor will be responsible for repairing or replacing any trees, shrubs, lawns and landscaping that may be damaged due to careless operation of equipment, stockpiling of materials, tracking of grass by equipment or other construction activity. The Contractor will be liable for, or will be required to replace or restore at no expense to the City all vegetation not protected or preserved as required herein that may be destroyed or damaged.

During the progress of the work, the Contractor shall keep the premises free from accumulations of waste materials, rubbish and debris resulting from the Work. At the completion of the Work, the Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials and shall leave the site clean and ready for occupancy by the City. The Contractor shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents at no cost to the City.

8.16 Project Coordination: The Contractor shall provide for the complete coordination of the construction effort. This shall include, but not necessarily be limited to, coordination of the following:

8.16.1 Flow of material and equipment from suppliers.

8.16.2 The interrelated work with affected utility companies.

8.16.3 The interrelated work with the City where tie-ins to existing facilities are required.

8.16.4 The effort of independent testing agencies.

8.17 Notice to affected property owners as may be directed by the Project Manager. Project Record Documents and Final As-Builts (Record Drawings): Contractor shall be responsible for maintaining up-to-date redline as-built drawings, on site, at all times during construction. All as-built information shall be surveyed and verified by a professional land surveyor registered in the State of Florida. Contractor shall provide the City with a minimum of three (3) sets of signed and sealed record drawings (Final As-Builts) and a CD of the electronic drawings files created in AutoCad 2014 or later. All costs associated with survey work required for construction layout and as-built preparation shall be the responsibility of the Contractor.

8.18 Safety and Protection:

8.18.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

8.18.1.1 All employees working on the project and other persons who may be affected thereby.

8.18.1.2 All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site.

8.18.1.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

8.18.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and utilities when execution of the Work may affect them at least seventy-two (72) hours in advance (unless otherwise required). All damage, injury or loss to any property caused, directly or indirectly, in whole or in part by the Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and accepted by the City.

- 8.19 Emergencies: In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the City is obligated to act to prevent threatened damage, injury or loss. The Contractor shall give the Project Manager prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.
- 8.20 Risk of Loss: The risk of loss, injury or destruction shall be on the Contractor until acceptance of the Work by the City. Title to the Work shall pass to the City upon acceptance of the Work by the City.
- 8.21 Environmental: The Contractor has fully inspected the Premises and agrees, except as to the presence of any asbestos, to accept the Premises in an "as is" physical condition, without representation or warranty by the City of any kind, including, without limitation, any and all existing environmental claims or obligations that may arise from the presence of any "contamination" on, in or about the Premises. Further, Contractor and all entitles claiming by, through or under the Contractor, releases and discharges the City, from any claim, demand, or cause of action arising out of or relating to the Contractor's use, handling, storage, release, discharge, treatment, removal, transport, decontamination, cleanup, disposal and/or presence of any hazardous substances including asbestos on, under, from or about the Premises. The Contractor shall have no liability for any pre-existing claims or "contamination" on the Premises.

The Contractor shall not use, handle, store, discharge, treat, remove, transport, or dispose of Hazardous Substances including asbestos at, in, upon, under, to or from the Premises until receipt of instructions from the City. At such time, a City approved Change Order, which shall not include any profit, shall authorize the Contractor to perform such services.

The Contractor shall immediately deliver to the Project Manager complete copies of all notices, demands, or other communications received by the Contractor from any governmental or quasi-governmental authority or any insurance company or board of fire underwriters or like or similar entities regarding in any way alleged violations or potential violations of any Environmental Law or otherwise asserting the existence or potential existence of any condition or activity on the Premises which is or could be dangerous to life, limb, property, or the environment.

For other and additional consideration, the Contractor hereby agrees, at its sole cost and expense, to indemnify and protect, defend, and hold harmless the City and its respective employees, agents, officials, officers, representatives, contractors and subcontractors, successors, and assigns (hereafter the "City") from and against any and all claims, demands, losses, damages, costs, expenses, including but not limited to mitigation, restoration, and natural restoration expenses, liabilities, assessments, fines, penalties charges, administrative and judicial proceedings and orders, judgments, causes of action, in law or in equity, remedial action requirements and/or enforcement actions of any kind (including, without limitation, attorneys' fees and costs) directly or indirectly arising out of or attributable to, in whole or in part, the Contractor's use, handling, storage, release, threatened release, discharge, treatment, removal, transport, decontamination, cleanup, disposal and/or presence of a Hazardous Substance (excluding asbestos) on, under, from, to or about the Premises

or any other activity carried on or undertaken on or off the Premises by the Contractor or its employees, agents or subcontractors, in connection with the use, handling, storage, release, threatened release, discharge, treatment, mitigation, natural resource restoration, removal, transport, decontamination, cleanup, disposal and/or presence or any Hazardous Substance including asbestos located, transported, or present on, undue, from, to, or about the Premises. This indemnity is intended to be operable under 42 U.S.C. sections 9607, as amended, and any successor section.

The scope of the indemnity obligations includes, but is not limited to: (a) all consequential damages; (b) the cost of any required or necessary repair, cleanup, or detoxification of the applicable real estate and the preparation and implementation of any closure, remedial or other required plan, including without limitation; (i) the costs of removal or remedial action incurred by the United States government or the State of Florida or response costs incurred by any other person, or damages from injury to destruction of, or loss of, natural resources, including the cost of assessing such injury, destruction, or loss, incurred pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, as amended; (ii) the clean-up costs, fines, damages, or penalties incurred pursuant to any applicable provisions of Florida law; and (iii) the cost and expenses of abatement, correction or cleanup, fines, damages, response costs, or penalties which arise from the provisions of any other statute, law, regulation, code ordinance, or legal requirement state or federal; and (c) liability for personal injury or property damage arising under any statutory or common law tort theory, including damages assessed for the maintenance of a public private nuisance, response costs, or for the carrying on of an abnormally dangerous activity.

8.22 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any other reason or allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the City, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the City and the Contractor.

8.23 No Liens: If any Subcontractor, supplier, laborer, or materialmen of Contractor or any other person directly or indirectly acting for or through Contractor files or attempts to file a mechanic's or construction lien against the real property on which the work is performed or any part or against any personal property or improvements or claim against any monies due or to become due from the City to Contractor or from Contractor to a Subcontractor, for or on account of any work, labor, services, material, equipment, or other items furnished in connection with the Work or any Change Order, Contractor agrees to satisfy, remove, or discharge such lien or claim at its own expense by bond, payment, or otherwise within twenty (20) days of the filing or from receipt of written notice from the City.

Additionally, until such time as such lien or claim is satisfied, removed or discharged by Contractor, all monies due to Contractor, or that become due to Contractor before the lien or claim is satisfied, removed or otherwise discharged, shall be held by City as security for the satisfaction, removal and discharge of such lien and any expense that may be incurred while obtaining such. If Contractor shall fail to do so, City shall have the right, in addition to all other rights and remedies provided by this Agreement or by law, to satisfy, remove, or discharge such lien or claim by whatever means City chooses at the entire and sole cost and expense of Contractor which costs and expenses shall, without limitation, include attorney's fees, litigation costs, fees and expenses and all court costs and assessments.

- 8.24 Weather Emergencies: Upon issuance of a Hurricane Watch by the National Weather Service, the Contractor shall submit to the City a plan to secure the work area in the event a Hurricane Warning is issued. The plan shall detail how the Contractor will secure the Premises, equipment and materials in a manner as to prevent damage to the Work and prevent materials and equipment from becoming a hazard to persons and property on and around the Premises. The plan shall include a time schedule required to accomplish the hurricane preparations and a list of emergency contacts that will be available and in the City before, during and immediately after the storm.

Upon issuance of a Hurricane Warning by the National Weather Service, if the Contractor has not already done so, the Contractor shall implement its hurricane preparedness plan. Cost of development and implementation of the hurricane preparedness plan shall be considered as incidental to construction. Cost of any clean up and rework required after the storm will be considered normal construction risk within Florida and shall not entitle the Contractor to any additional compensation. Contractor shall be entitled to request an extension in time for completion of the Work, in accordance with the provisions of Article 15 of this Agreement, equal to the time he is shut down for implementation of the preparedness plan, the duration of the storm and a reasonable period to restore the Premises.

- 8.25 Force Majeure: No Party shall hold the other responsible for damages or for delays in performance caused by force majeure, acts of God, or other acts or circumstances beyond the control of the other party or that could not have been reasonably foreseen and prevented. For this purposes, such acts or circumstances shall include, but not be limited to weather conditions affecting performance, floods, epidemics, war, riots, strikes, lockouts, or other industrial disturbances, or protest demonstrations. Should such acts or circumstances occur, the parties shall use their best efforts to overcome the difficulties arising therefrom and to resume the Work as soon as reasonably possible with the normal pursuit of the Work.

Inclement weather, continuous rain for less than three (3) days or the acts or omissions of subcontractors, third-party contractors, materialmen, suppliers, or their subcontractors, shall not be considered acts of force majeure.

No Party shall be liable for its failure to carry out its obligations under the Agreement during a period when such Party is rendered unable by force majeure to carry out its obligation, but the obligation of the Party or Parties relying on such force majeure shall be suspended only during the continuance of the inability and for no longer period than the unexpected or uncontrollable event.

The Contractor further agrees and stipulates, that its right to excuse its failure to perform by reason of force majeure shall be conditioned upon giving written notice of its assertion that a Force Majeure delay has commenced within 96 hours after such an occurrence. The CONTRACTOR shall use its reasonable efforts to minimize such delays. The CONTRACTOR shall promptly provide an estimate of the anticipated additional time required to complete the Project.

- 8.26 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assisted Contracts: The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 *et seq.*).

Additionally, the contractor assures that they, the sub recipient or the subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate. (This additional language must be included in each subcontract the prime contractor signs with a subcontractor.)

ARTICLE 9 – CITY’S RESPONSIBILITIES

- 9.1 The City shall furnish the data required of the City under the Contract Documents promptly and shall make payments to the Contractor promptly after they are due as provided in Article 7.
- 9.2 The City's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in the Contract Documents.
- 9.3 Technical Clarifications and Interpretations:
- 9.3.1 The City shall issue, with reasonable promptness, such written clarifications or interpretations of the Contract Documents as it may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. Should the Contractor fail to request interpretation of questionable items in the Contract Documents, the City shall not entertain any excuse for failure to execute the Work in a satisfactory manner.

9.3.2 The City shall interpret and decide matters concerning performance under the requirements of the Contract Documents, and shall make decisions on all claims, disputes or other matters in question. Written notice of each claim, dispute or other matter will be delivered by claimant to the other Party but in no event later than five (5) days after the occurrence of event, and written supporting data will be submitted to the other Party within five (5) days after such occurrence. All written decisions of the City on any claim or dispute will be final and binding.

9.4 The Contractor shall perform all Work to the reasonable satisfaction of the City in accordance with the Contract Documents. In cases of disagreement or ambiguity, the City shall decide all questions, difficulties, and disputes of whatever nature, which may arise under or by reason of this Agreement or the quality, amount and value of the Work, and the City's decisions on all claims, questions and determination are final.

ARTICLE 10 – BONDS AND INSURANCE

10.1 Public Construction and Other Bonds: The Contractor shall furnish Public Construction or Performance and Payment Bonds ("Bond"), each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all the Contractor's obligations under the Contract Documents. These Bonds shall remain in effect until at least one (1) year after the date of final payment, except as otherwise provided by law. All Bonds shall be furnished and provided by the surety and shall be in substantially the same form as prescribed by the Contract Documents and be executed by such sureties as (i) are licensed to conduct business in the State of Florida, and (ii) are named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department and (iii) otherwise meet the requirements set forth herein that apply to sureties. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

10.1.1 Performance Bond: A Corporate Surety Bond legally issued, meeting the approval of, and running to the City in an amount not less than the Contract Price of such improvements, conditioned that the Contractor shall maintain and make all repairs to the improvements constructed by the Contractor at their own expense and free of charge to the City, for the period of one (1) year after the date of acceptance of the Work within such period by reason of any imperfection of the material used or by reason of any defective workmanship, or any improper, imperfect or defective preparation of the base upon which any such improvement shall be laid.

The Contractor shall execute and record in the public records of Broward County, Florida, a payment and performance bond in an amount at least equal to the Contract Price with a surety insurer authorized to do business in the State of Florida as surety, ("Bond"), in accordance with Section 255.05, Florida Statutes (2014), as may be amended or revised, as security for the faithful performance and payment of all of the Contractor's obligations under the Contract Documents.

10.2 Disqualification of Surety: If the Surety on any Bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Florida or it ceases to meet the requirements of clauses (i) and (ii) of Paragraph 10.1, the Contractor shall within five (5) days thereafter substitute another Bond and Surety, both of which shall be acceptable to the City.

10.3 Insurance

10.3.1 As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, the Contractor, at the Contractor's sole expense, shall provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of the Contractor. The Contractor shall provide the City a certificate of insurance evidencing such coverage. The Contractor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under this Agreement. All insurance policies shall be from insurers authorized to write insurance policies in the State of Florida and that possess an A.M. Best rating of A-, VII or better. All insurance policies are subject to approval by the City's Risk Manager.

The coverages, limits, and endorsements required herein protect the interests of the City, and these coverages, limits, and endorsements may not be relied upon by the Contractor for assessing the extent or determining appropriate types and limits of coverage to protect the Contractor against any loss exposure, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the City's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Agreement.

The following insurance policies and coverages are required:

10.3.2 Commercial General Liability

Coverage must be afforded under a Commercial General Liability policy with limits not less than:

- \$1,000,000 each occurrence and \$2,000,000 aggregate for Bodily Injury, Property Damage, and Personal and Advertising Injury
- \$1,000,000 each occurrence and \$2,000,000 aggregate for Products and Completed Operations

Policy must include coverage for Contractual Liability and Independent Contractors.

The City and the City's officers, employees, and volunteers are to be covered as additional insureds with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liability arising out of activities performed by or on behalf of the Contractor. The coverage shall contain no special limitation on the scope of protection afforded to the City or the City's officers, employees, and volunteers.

10.3.3 Business Automobile Liability

Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than \$1,000,000 combined single limit each accident.

If the Contractor does not own vehicles, the Contractor shall maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

10.3.4 Workers' Compensation and Employer's Liability

Coverage must be afforded per Chapter 440, Florida Statutes. Any person or entity performing work for or on behalf of the City must provide Workers' Compensation insurance. Exceptions and exemptions will be allowed by the City's Risk Manager, if they are in accordance with Florida Statute.

The Contractor waives, and the Contractor shall ensure that the Contractor's insurance carrier waives, all subrogation rights against the City and the City's officers, employees, and volunteers for all losses or damages. The City requires the policy to be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or equivalent.

The Contractor must be in compliance with all applicable State and federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable.

Insurance Certificate Requirements

- a. The Contractor shall provide the City with valid Certificates of Insurance (binders are unacceptable) no later than thirty (30) days prior to the start of work contemplated in this Agreement.
- b. The Contractor shall provide to the City a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.
- c. In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the Contractor to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.
- d. In the event the Agreement term goes beyond the expiration date of the insurance policy, the Contractor shall provide the City with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The City reserves the right to suspend the Agreement until this requirement is met.
- e. The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
- f. The City shall be named as an Additional Insured on all liability policies, with the exception of Workers' Compensation.
- g. The City shall be granted a Waiver of Subrogation on the Contractor's Workers' Compensation insurance policy.

- h. The title of the Agreement, Bid/Contract number, event dates, or other identifying reference must be listed on the Certificate of Insurance.

The Certificate Holder should read as follows:

City of Fort Lauderdale
100 N. Andrews Avenue
Fort Lauderdale, FL 33301

The Contractor has the sole responsibility for the payment of all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. Any costs for adding the City as an Additional Insured shall be at the Contractor's expense.

If the Contractor's primary insurance policy/policies do not meet the minimum requirements, as set forth in this Agreement, the Contractor may provide evidence of an Umbrella/Excess insurance policy to comply with this requirement.

The Contractor's insurance coverage shall be primary insurance as applied to the City and the City's officers, employees, and volunteers. Any insurance or self-insurance maintained by the City covering the City, the City's officers, employees, or volunteers shall be non-contributory.

Any exclusion or provision in the insurance maintained by the Contractor that excludes coverage for work contemplated in this Agreement shall be unacceptable and shall be considered breach of contract.

All required insurance policies must be maintained until the contract work has been accepted by the City, or until this Agreement is terminated, whichever is later. Any lapse in coverage shall be considered breach of contract. In addition, Contractor must provide to the City confirmation of coverage renewal via an updated certificate should any policies expire prior to the expiration of this Agreement. The City reserves the right to review, at any time, coverage forms and limits of Contractor's insurance policies.

The Contractor shall provide notice of any and all claims, accidents, and any other occurrences associated with this Agreement shall be provided to the Contractor's insurance company or companies and the City's Risk Management office as soon as practical.

It is the Contractor's responsibility to ensure that any and all of the Contractor's independent contractors and subcontractors comply with these insurance requirements. All coverages for independent contractors and subcontractors shall be subject to all of the applicable requirements stated herein. Any and all deficiencies are the responsibility of the Contractor.

NOTE: CITY PROJECT NUMBER AND NAME MUST APPEAR ON EACH CERTIFICATE, AND THE CITY OF FORTLAUDERDALE MUST BE NAMED ON THE CERTIFICATE AS AN "ADDITIONAL INSURED" ON ALL LIABILITY POLICIES, WITH THE EXCEPTION OF WORKERS' COMPENSATION.

ARTICLE 11- WARRANTY AND GUARANTEE, TESTS AND INSPECTIONS,

CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

- 11.1 Warranty: The Contractor warrants and guarantees to the City that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to the Contractor. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this Article.
- 11.1.1 Warranty of Title: The Contractor warrants to the City that it possesses good, clear and marketable title to all equipment and materials provided and that there are no pending liens, claims or encumbrances against the equipment and materials.
- 11.1.2 Warranty of Specifications: The Contractor warrants that all equipment, materials and workmanship furnished, whether furnished by the Contractor, its subcontractors or suppliers, will comply with the specifications, drawings and other descriptions supplied or adopted and that all services will be performed in a workmanlike manner.
- 11.1.3 Warranty of Merchantability: The Contractor warrants that any and all equipment to be supplied pursuant to this Agreement is merchantable, free from defects, whether patent or latent in material or workmanship, and fit for the ordinary purposes for which it is intended.
- 11.2 Tests and Inspections: Contractor shall retain the services of an independent, certified, testing lab to perform all testing as required by the specifications, Contract drawings, and any applicable permitting agency. Contractor shall provide evidence of certification to the City before the work and testing is done. Testing results shall be submitted to the Engineer for review and approval at the time the results are provided to the Contractor. The Contractor shall give the Project Manager and City Inspector a minimum of twenty-four (24) hours' advanced notice of readiness of the Work for all required inspections, tests, or approvals and shall notify all applicable permitting agencies in a timely manner based on requirements set forth in the permit documents.
- 11.2.1 Neither observations by the Project Manager nor inspections, tests or approvals by others shall relieve the Contractor from its obligations to perform the Work in accordance with the Contract Documents.
- 11.3 Uncovering Work: If any work that is to be inspected, tested or approved is covered without approval or consent of the Project Manager, it must, if requested by the Project Manager, be uncovered for observation and/or testing. Such uncovering and replacement shall be at the Contractor's sole expense unless the Contractor has given the Project Manager timely notice of the Contractor's intention to cover such Work and the Project Manager has not acted with reasonable promptness in response to such notice.
- 11.3.1 If the Project Manager considers it necessary or advisable that Work covered in accordance with Paragraph 11.2.1, 11.2.2 and 11.2.3 be observed by the City or inspected or tested by others, the Contractor at the City's request, shall uncover, expose or otherwise make available for observation, inspection or testing as the Project Manager may require, that portion of the Work in

question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, the Contractor shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. If, however, such work is not found to be defective, the Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection testing and reconstruction if he makes a claim therefore as provided in Articles 14 and 15.

- 11.4 City May Stop the Work: If the Work is defective, or the Contractor fails to supply sufficient skilled supervisory personnel or workmen or suitable materials or equipment or the work area is deemed unsafe, the City may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the City to stop the Work shall not give rise to any duty on the part of the City to exercise this right for the benefit of the Contractor or any other party. The City will not award any increase in Contract Price or Contract Time if the Work is stopped due to the circumstances described herein.
- 11.5 Correction or Removal of Defective Work Before Final Payment: If required by the Project Manager, the Contractor shall promptly, without cost to the City and as Specified by the Project Manager, either correct any defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by the City remove it from the site and replace it with non-defective Work.
- 11.6 One Year Correction Period After Final Payment: If within one (1) year after the date of final acceptance, or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any work is found to be defective, the Contractor shall promptly, without cost to the City and in accordance with the City's written instructions, either correct such defective Work, or, if it has been rejected by the City, remove it from the site and replace it with non-defective Work.

If The Contractor does not promptly comply with the terms of such instructions or in an emergency where delay would cause serious risk of loss or damage, the City may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs for such removal and replacement, including compensation for additional professional services, shall be paid by the Contractor.

- 11.7 Acceptance of Defective Work, Deductions: If, instead of requiring correction or removal and replacement of defective Work, the City, at the city's sole option, prefers to accept it, the City may do so. In such a case, if acceptance occurs prior to the Project Manager's recommendation of final payments, a Change Order shall be issued incorporating the necessary revisions in the Contracts Documents, including appropriate reduction in the Contract Price; or if the acceptance occurs after such recommendation, an appropriate amount shall be paid by the Contractor to the City.
- 11.8 City May Correct Defective Work: If the Contractor fails within a reasonable time after written notice of the Project Manager to proceed to correct defective Work or to remove and replace rejected Work as required by the Project Manager in accordance

with Paragraph 11.5, or if the Contractor fails to perform the Work in accordance with the Contract Documents, the City may, after seven (7) days written notice to the Contractor, correct and remedy any such deficiency. In exercising its rights under this paragraph, the City shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the City may exclude the Contractor from all or part of the site, take possession of all or part of the Work, suspend the Contractor's services related thereto and take possession of the Contractor's tools, construction equipment and materials stored at the site or elsewhere. The Contractor shall allow the City's representative agents and employees such access to the site as may be necessary to enable the City to exercise its rights under this paragraph. All direct and indirect costs of the City in exercising such rights shall be charged against the Contractor in an amount verified by the Project Manager, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of the Contractor's defective Work. The Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the City of the City's right hereunder.

ARTICLE 12 – INDEMNIFICATION

- 12.1 Disclaimer of Liability: The City shall not at any time, be liable for injury or damage occurring to any person or property from any cause, whatsoever, arising out of Contractor's construction and fulfillment of this agreement.
- 12.2 Indemnification: For other, additional good valuable consideration, the receipt and sufficiency of which is hereby acknowledged:
- 12.2.1 Contractor shall, at its sole cost and expense, indemnify and hold harmless the City, its representatives, employees and elected and appointed officials from or on account of all claims, damages, losses, liabilities and expenses, direct, indirect or consequential including but not limited to fees and charges of engineers, architects, attorneys, consultants and other professionals and court costs arising out of or in consequence of the performance of this Agreement at all trial and appellate levels. Indemnification shall specifically include but not be limited to claims, damages, losses, liabilities and expenses arising out of or from (a) the negligent or defective design of the project and Work of this Agreement; (b) any act, omission or default of the Contractor, its Subcontractors, agents, servants or employees; (c) any and all bodily injuries, sickness, disease or death; (d) injury to or destruction of tangible property, including any resulting loss of use; (e) other such damages, liabilities, or losses received or sustained by any person or persons during or on account of any operations connected with the construction of this Project including the warranty period; (f) the use of any improper materials; (g) any construction defect including both patent and latent defects; (h) failure to timely complete the work; (i) the violation of any federal, state, county or city laws, ordinances or regulations by Contractor, its subcontractors, agents, servants, independent contractors or employees; (j) the breach or alleged breach by Contractor of any

term of the Agreement, including the breach or alleged breach of any warranty or guarantee.

- 12.2.2 Contractor agrees to indemnify, defend, save and hold harmless the City, its officers, agents and employees, from all damages, liabilities, losses, claims, fines and fees, and from any and all suits and actions of every name and description that may be brought against City, its officers, agents and employees, on account of any claims, fees, royalties, or costs for any invention or patent and/or for the infringement of any and all copyrights or patent rights claimed by any person, firm, or corporation.
- 12.2.3 Contractor shall pay all claims, losses, liens, settlements or judgments of any nature in connection with the foregoing indemnifications including, but not limited to, reasonable attorney's fees and costs for trials and appeals.
- 12.2.4 If any Subcontractor, supplier, laborer, or materialmen of Contractor or any other person directly or indirectly acting for or through Contractor files or attempts to file a mechanic's or construction lien against the real property on which the work is performed or any part or against any personal property or improvements thereon or make a claim against any monies due or to become due from the City to Contractor or from Contractor to a Subcontractor, for or on account of any work, labor, services, material, equipment, or other items furnished in connection with the Work or any change order, Contractor agrees to satisfy, remove, or discharge such lien or claim at its own expense by bond, payment, or otherwise within five (5) days of the filing or from receipt of written notice from the City.

Additionally, until such time as such lien or claim is satisfied, removed or discharged by Contractor, all monies due to Contractor, or that become due to Contractor before the lien or claim is satisfied, removed or otherwise discharged, shall be held by City as security for the satisfaction, removal and discharge of such lien and any expense that may be incurred while obtaining the discharge. If Contractor shall fail to do so, City shall have the right, in addition to all other rights and remedies provided by this Agreement or by law, to satisfy, remove, or discharge such lien or claim by whatever means City chooses at the entire and sole cost and expense of Contractor which costs and expenses shall, without limitation, include attorney's fees, litigation costs, fees and expenses and all court costs and assessments, and which shall be deducted from any amount owing to Contractor. In the event the amount due Contractor is less than the amount required to satisfy Contractor's obligation under this, or any other article, paragraph or section of this Agreement, the Contractor shall be liable for the deficiency due the City.

- 12.2.5 The Contractor and the City agree that Section 725.06(2), Florida Statutes controls the extent and limits of the indemnification and hold harmless provisions of this Agreement, if any, and that the parties waive any defects in the wording of this Article that runs afoul of said statutory section.

ARTICLE 13 – CHANGES IN THE WORK

- 13.1 Without invalidating this Agreement, the City may, at any time or from time to time order additions, deletions or revisions in the Work through the issuance of Change Orders. Upon receipt of a Change Order, the Contractor shall proceed with the Work involved. All Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Article 14 or Article 15 on the basis of a claim made by either Party.
- 13.2 The Project Manager may authorize minor changes in the work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. Such changes must be in writing and signed by the City and the Contractor.
- 13.3 If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be the Contractor's responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. The Contractor shall furnish proof of such adjustment to the City.

ARTICLE 14 – CHANGE OF CONTRACT PRICE

Change of Contract Price, approved by City, shall be computed as follows:

- 14.1 Cost of the Work: The term "Cost of the Work" means the sum of all direct costs necessarily incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by the City, these costs shall be in amounts no higher than those prevailing in the City and shall include only the following items and shall not include any of the costs itemized in Paragraph 14.3:

14.1.1 Payroll costs for employees in the direct employ of the Contractor in the performance of the Work under schedules of job classifications agreed upon by the City and the Contractor. 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 and cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, worker's compensation, health and retirement benefits, bonuses, sick leave, vacation and applicable holiday pay.

14.1.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage, and required suppliers and field services. All cash discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to the City, and the Contractor shall make provisions so that they may be obtained.

14.1.3 Supplemental costs including the following:

- 14.1.3.1 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.

- 14.1.3.2 Rentals of all construction equipment and machinery and the parts whether rented from the Contractor or others in accordance with rental agreements approved by the City, and the costs of transporting, loading, unloading, installation, dismantling and removal. The rental of any such equipment, machinery or parts shall cease when the use is no longer necessary for the Work.
- 14.1.3.3 Sales, consumer, use or similar taxes related to the Work and for which the Contractor is liable, imposed by laws and regulations.
- 14.1.3.4 Royalty payments and fees for permits and licenses.
- 14.1.3.5 The cost of utilities, fuel and sanitary facilities at the Work site.
- 14.1.3.6 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.
- 14.1.3.7 Cost of premiums for additional bonds and insurance required because of changes in the Work.

14.2 The Contract Price may only be increased by a Change Order when Work is modified in accordance with Article 13 and approved by the City in writing. Any claim for an increase in the Contract Price resulting from a Change Order shall be based on written notice delivered to the Project Manager within ten (10) days of the occurrence of the Change Order giving rise to the claim. Notice of the amount of the claim with supporting data shall be included in the Change Order and delivered within twenty (20) days of such occurrence unless Project Manager allows an additional period of time to ascertain accurate cost data. Any change in the Contract Price resulting from any such claim shall be incorporated in the Change Order. **IT IS EXPRESSLY AND SPECIFICALLY AGREED THAT ANY AND ALL CLAIMS FOR CHANGES TO THE CONTRACT PRICE SHALL BE WAIVED IF NOT SUBMITTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.**

14.3 Not Included in the Cost of the Work: The term "cost of the Work" shall not include any of the following:

- 14.3.1 Payroll costs and other compensation of the Contractor's officers executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditor, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by the Contractor whether at the site or in the 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 14.1.1, all of which are to be considered administrative costs covered by the Contractor's fee.

14.3.2 Expenses of the Contractor's principal and branch offices other than the Contractor's office at the site.

14.3.3 Any part of the Contractor's capital expenses, including interest on the Contractor's capital employed for the Work and charges against the Contractor for delinquent payments.

14.3.4 Cost of premiums for all bonds and for all insurance whether or not the Contractor is required by the Contract Documents to purchase and maintain the same.

14.3.5 Costs due to the negligence of the 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.

14.3.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 14.1

14.4 Basis of Compensation: The Contractor's compensation, allowed to the Contractor for overhead and profit, shall be determined as follows:

14.4.1 A mutually acceptable negotiated fee:

14.4.1.1 For costs incurred under Paragraphs 14.1.1 and 14.1.2, the Contractor's fee shall not exceed five percent (5%).

14.4.1.2 No fee shall be payable on the basis of costs itemized under Paragraphs 14.1.3.1, 14.1.3.2, 14.1.3.3, 14.1.3.4, 14.1.3.5, 14.1.3.6, 14.1.3.7, 14.3.1, 14.3.2, 14.3.3, 14.3.4, 14.3.5 and 14.3.6.

14.4.1.3 The amount of credit to be allowed by the Contractor to the City for any such change which results in a net decrease plus a deduction in the Contractor's fee by an amount equal to five percent (5%) for the net decrease.

14.4.1.4 When both additions and credits are involved in any one change the combined overhead and profit shall be figured on the basis of net increase if any, however, not to exceed five percent (5%) of the agreed compensation. Profit will not be paid on any Work not performed.

14.5 Cost Breakdown Required: Whenever the cost of any Work is to be determined pursuant to this Article, the Contractor will submit in form acceptable to the City an itemized cost breakdown together with supporting documentation. Whenever a change in the Work is to be based upon mutual acceptance of a lump sum, whether the amount is an addition, credit, or no-charge-in-cost, the Contractor shall submit an estimate substantiated by a complete itemized breakdown:

14.5.1 The breakdown shall list quantities and unit prices for materials, labor, equipment and other items of cost.

14.5.2 Whenever a change involves the Contractor and one (1) or more subcontractors and the change is an increase in the agreed compensation, the overhead and profit percentage for the Contractor and each subcontractor shall be itemized separately.

14.6 Time for the City to Approve Extra Work: Any Extra Work in an amount up to and not exceeding a cumulative amount of \$25,000 for a specific project can be approved by the City Manager and shall require a written Change Order proposal to be submitted to the Public Works Director for submittal and approval by the City Manager. Extra Work exceeding the cumulative amount of \$25,000 for a specific project must be approved by the City Commission and a written Change Order proposal must be submitted to the Public Works Director for submittal and approval by the City Manager and City Commission. No financial or time claim for delay to the project resulting from the Change Order approval process outlined above under Section 14.6 will be allowed.

ARTICLE 15 – CHANGE OF THE CONTRACT TIME

- 15.1 The Contract Time may only be changed by a Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to the Project Manager within five (5) days of the occurrence of the event giving rise to the claim. Any change in the Contract Time resulting from any such claim shall be incorporated in a Change Order.
- 15.2 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of the Contractor if a claim is made there for as provided in Paragraph 15.1. Such delays shall include but not be limited to, acts or neglect by the City, or to fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.
- 15.3 All time limits stated in the Contract Documents are of the essence. The provisions of this Article 15 shall not exclude recovery for damages for delay by the Contractor.
- 15.4 Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the CONTRACTOR (non-affiliated Contractors) shall not give rise to a claim by the CONTRACTOR for damages for increases in material and/or labor costs. Such entities, contractors and subcontractors include, but are not limited to, the City's contractors and subcontractors, Florida Power and Light Company, AT&T and Florida East Coast Railway, LLC.
- 15.5 Rights of Various Interests: Whenever work being done by City's forces or by other contractors is contiguous to or within the limits of work covered by this Contract, the respective rights of the various interests involved shall be established by the Project Manager to secure the completion of the various portions of the work in general harmony.

ARTICLE 16 – LIQUIDATED DAMAGES

- 16.1 Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the City the sum of **Five Hundred Dollars (\$500.00)** for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay is caused by the Contractor. Should an act of God or the acts or omissions of the City, its agents or representatives, in derogation to the terms of this Agreement cause the delay, the Contractor shall not be responsible for the delay nor liquidated damages. Liquidated damages are fixed and agreed upon between the Parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by the City as a consequence of such delay and both parties desiring to obviate any question of dispute concerning the amount of damages and the cost and effect of the failure of the Contractor to complete the Work on time. Liquidated damages shall apply separately to each portion of the Work for which a time of completion is given. The City shall have the right to deduct from or retain any compensation which may be due or which may become due and payable to the Contractor the amount of liquidated damages, and if the amount retained by the City is insufficient to pay in full such liquidated damages, the Contractor shall pay all liquidated damages in full. The Contractor shall be responsible for reimbursing the City, in addition to liquidated damages or other damages for delay, for all costs of engineering, architectural fees, and inspection and other costs incurred in administering the construction of the Project beyond the completion date specified or beyond an approved extension of time granted to the Contractor whichever is later. Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the Contractor shall not give rise to a claim by Contractor for damages for increase in material and/or labor costs. Such entities, contractors and subcontractors include, but are not limited to, the City's contractors and subcontractors, Florida Power and Light Company, AT&T, and Florida East Coast Railway, LLC.
- 16.2 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any reason, allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the City, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the City and the Contractor.

ARTICLE 17 – SUSPENSION OF WORK AND TERMINATION

- 17.1 City May Suspend Work: The City may, at any time and without cause, suspend the Work or any portion of the Work for a period of not more than ninety (90) days by notice in writing to the Contractor which shall fix the date on which Work shall be resumed. The Contractor shall resume the Work on the date fixed. The Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time,

or both, directly attributable to any suspension, if the Contractor makes a claim as provided in Articles 14 and 15.

17.2 City's Right to Terminate Contract: The City may terminate this Agreement upon fifteen (15) calendar days' written notice upon the occurrence of any one or more of the following events:

17.2.1 If the Contractor commences a voluntary case or a petition is filed against the Contractor, under any chapter of the Bankruptcy Code, or if the Contractor takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency.

17.2.2 If the Contractor makes a general assignment for the benefit of creditors.

17.2.3 If a trustee, receiver, custodian or agent of the Contractor is appointed under applicable law or under Contract, whose appointment or authority to take charge of property of the Contractor is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of the Contractor's creditors.

17.2.4 If Contractor fails to begin the Work within fifteen (15) calendar days after the Project Initiation Date, or fails to perform the Work with sufficient workers and equipment or with sufficient materials to ensure the prompt completion of the Work, or shall perform the Work unsuitably, or cause it to be rejected as defective and unsuitable, or shall discontinue the prosecution of the Work pursuant to the accepted schedule or if Contractor shall fail to perform any material term set forth in the Contract Documents, or from any other cause whatsoever shall not carry on the Work in an acceptable manner, Project Manager may give notice in writing to Contractor and its Surety of such delay, neglect or default, specifying the same.

17.2.5 If the Contractor repeatedly fails to make prompt payments to subcontractors or for labor, material or equipment.

17.2.6 If the Contractor repeatedly disregards proper safety procedures.

17.2.7 If the Contractor disregards any local, state or federal laws or regulations.

17.2.8 If the Contractor otherwise violates any provisions of this Agreement.

17.3 If Contractor, within a period of ten (10) calendar days after such notice, shall not proceed in accordance therewith, the City may exclude the Contractor from the Work site and take the prosecution of the Work out of the hands of the Contractor, and take possession of the Work and all of the Contractor's tools, appliances, construction equipment and machinery at the site and use them without liability to the City for trespass or conversion, incorporate in the Work all materials and equipment stored at the site or for which the City has paid the Contractor but which are stored elsewhere, and finish the Work as the City may deem expedient. In this instance, the Contractor shall not be entitled to receive any further compensation until the Work is finished.

17.3.1 If after notice of termination of Contractor's right to proceed, it is determined for any reason that Contractor was not in default, the rights and obligations of City and Contractor shall be the same as if the notice of termination had been issued pursuant to the Termination for Convenience clause as set forth in Section 17.5 below.

17.3.2 Upon receipt of Notice of Termination pursuant to Sections 17.2 or 17.5, Contractor shall promptly discontinue all affected work unless the Notice of Termination directs otherwise and deliver or otherwise make available to City all data, drawings, specifications, reports, estimates, summaries and such other information as may have been required by the Contract Documents whether completed or in process.

17.4 If the Contractor commits a default due to its insolvency or bankruptcy, the following shall apply:

17.4.1 Should this Agreement be entered into and fully executed by the parties, funds released and the Contractor (Debtor) files for bankruptcy, the following shall occur:

17.4.1.1 In the event the Contractor files a voluntary petition under 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303, the Contractor shall acknowledge the extent, validity, and priority of the lien recorded in favor of the City. The Contractor further agrees that in the event of this default, the City shall, at its option, be entitled to seek relief from the automatic stay pursuant to 11 U.S.C. 362. The City shall be entitled to relief from the automatic stay pursuant to 11 U.S.C. 362(d) (1) or (d) (2), and the Contractor agrees to waive the notice provisions in effect pursuant to 11 U.S.C. 362 and any applicable Local Rules of the United States Bankruptcy Court. The Contractor acknowledges that such waiver is done knowingly and voluntarily.

17.4.1.2 Alternatively, in the event the City does not seek stay relief, or if stay relief is denied, the City shall be entitled to monthly adequate protection payments within the meaning of 11 U.S.C. 361. The monthly adequate protection payments shall each be in an amount determined in accordance with the Note and Mortgage executed by the Contractor in favor of the City.

17.4.1.3 In the event the Contractor files for bankruptcy under Chapter 13 of Title 11, United States Code in addition to the foregoing provisions, the Contractor agrees to cure any amounts in arrears over a period not to exceed twenty-four (24) months from the date of the confirmation order, and such payments shall be made in addition to the regular monthly payments required by the Note and mortgage. Additionally, the Contractor shall agree that the City is over secured and, therefore, entitled to interest and attorney's fees pursuant to 11 U.S.C. 506(b). Such fees shall be allowed and payable as an administrative expense. Further, in the event the Contractor has less

than five (5) years of payments remaining on the Note, the Contractor agrees that the treatment afforded to the claim of the City under any confirmed plan of reorganization shall provide that the remaining payments shall be satisfied in accordance with the Note, and that the remaining payments or claim shall not be extended or amortized over a longer period than the time remaining under the Note.

17.4.2 Should this Agreement be entered into and fully executed by the parties, and the funds have not been forwarded to Contractor, the following shall occur:

17.4.2.1 In the event the Contractor files a voluntary petition pursuant to 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303., the Contractor acknowledges that the commencement of a bankruptcy proceeding constitutes an event of default under the terms of this Agreement. Further, the Contractor acknowledges that this Agreement constitutes an executory contract within the meaning of 11 U.S.C. 365. The Contractor acknowledges that this Agreement is not capable of being assumed pursuant to 11 U.S.C. 365(c)(2), unless the City expressly consents in writing to the assumption. In the event the City consents to the assumption, the Contractor agrees to file a motion to assume this Agreement within ten (10) days after receipt of written consent from the City, regardless of whether the bankruptcy proceeding is pending under Chapter 7, 11, or 13 of Title 11 of the United States Code. The Contractor further acknowledges that this Agreement is not capable of being assigned pursuant to 11 U.S.C. 365(b)(1).

17.5 Termination for Convenience: This Contract may be terminated for convenience in writing by City upon thirty (30) days written notice to Contractor (delivered by certified mail, return receipt requested) of intent to terminate and the date on which such termination becomes effective. In such case, Contractor shall be paid for all work executed and expenses incurred prior to termination in addition to termination settlement costs reasonably incurred by Contractor relating to commitments which had become firm prior to the termination. Payment shall include reasonable profit for work/services satisfactorily performed. No payment shall be made for profit for work/services which have not been performed.

17.6 Where the Contractor's service have been so terminated by the City, the termination shall not affect any rights of the City against the Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due the Contractor by the City will not release the Contractor from liability.

17.7 The Contractor has no right, authority or ability to terminate the Work except for the wrongful withholding of any payments due the Contractor from the City.

ARTICLE 18 – DISPUTE RESOLUTION

18.1 Resolution of Disputes: Questions, claims, difficulties and disputes of whatever nature which may arise relative to the technical interpretation of the Contract Documents and fulfillment of this Agreement as to the character, quality, amount and value of any work

done and materials furnished, or proposed to be done or furnished under or, by reason of, the Contract Documents which cannot be resolved by mutual agreement of Contract Administrator and Contractor shall be submitted to the Consultant for resolution. When either party has determined that a disputed question, claim, difficulty or dispute is at an impasse, that party shall notify the other party in writing and submit the question, claim, difficulty or dispute to the Consultant for resolution. The parties may agree to a proposed resolution at any time without the involvement and determination of the Consultant.

- 18.1.1 Consultant shall notify Contract Administrator and Contractor in writing of Consultant's decision within twenty-one (21) calendar days from the date of the submission of the question, claim, difficulty or dispute, unless Consultant requires time to gather information or allow the parties to provide additional information.
- 18.1.2 In the event the determination of a dispute by the Consultant under this Article is unacceptable to any of the parties hereto, the party objecting to the determination must notify the other party and the City Manager, in writing within ten (10) days after receipt of the determination. The notice must state the basis of the objection and the proposed resolution. Final resolution of such dispute shall be made by the City Manager. The City Manager's decision shall be final and binding on the parties.
- 18.1.3 All non-technical administrative disputes (such as billing and payment) shall be determined by Contract Administrator.
- 18.1.4 During the pendency of any dispute and after a determination thereof, Contractor, Consultant, and Contract Administrator shall act in good faith to mitigate any potential damages including utilization of construction schedule changes and alternate means of construction. During the pendency of any dispute arising under this Agreement, other than termination herein, Contractor shall carry on the Work and adhere to the progress schedule. The Work shall not be delayed or postponed pending resolution of any disputes or disagreements.
- 18.1.5 For any disputes which remain unsolved, within sixty (60) calendar days after Final Completion of the Work, the parties shall participate in mediation to address all unresolved disputes. A mediator shall be mutually agreed upon by the parties. Should any objection not be resolved in mediation, the parties retain all their legal rights and remedies under applicable law. If a party objecting to a determination, fails to comply in strict accordance with the requirements of this Article, said party specifically waives all of its rights provided hereunder, including its rights and remedies under applicable law.

ARTICLE 19 – NOTICES

- 19.1 All notices required by any of the Contract Documents shall be in writing and shall be deemed delivered upon mailing by certified mail, return receipt requested to the following:

To the City:

City Manager
City of Fort Lauderdale
100 North Andrews Avenue
Fort Lauderdale, Florida 33301

with copy to the:

Project Manager and City Attorney
City of Fort Lauderdale
100 North Andrews Avenue
Fort Lauderdale, Florida 33301

To the Contractor:

ARTICLE 20 – LIMITATION OF LIABILITY

- 20.1 The City desires to enter into this Agreement only if in so doing the City can place a limit on the City's liability for any cause of action arising out of this Agreement, so that the City's liability for any breach never exceeds the sum of \$1,000. For other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Contractor expresses its willingness to enter into this Agreement with the knowledge that the Contractor's recovery from the City to any action or claim arising from the Agreement is limited to a maximum amount of \$1,000, which amount shall be reduced by the amount actually paid by the City to the Contractor pursuant to this Agreement, for any action or claim arising out of this Agreement. Nothing contained in this paragraph or elsewhere in this Agreement is in any way intended either to be a waiver of the limitation placed upon the City's liability as set forth in Section 768.28, Florida Statutes, or to extend the City's liability beyond the limits established in said Section 768.28; and no claim or award against the City shall include attorney's fees, investigative costs, expert fees, suit costs or pre-judgment interest.
- 20.2 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any reason, allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the City, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This

provision will have application and effect when construction delays are anticipated and agreed upon by both the City and the Contractor.

ARTICLE 21 – GOVERNING LAW

- 21.1 This Agreement shall be governed by the laws of the State of Florida. Both Parties agree that the courts of the State of Florida shall have jurisdiction of any claim arising in connection with this Agreement. Venue for any claim, objection or dispute arising out of this Agreement shall be in Broward County, Florida. **By entering into this Contract, Contractor and City hereby expressly waive any rights either party may have to a trial by jury or any civil litigation related to, or arising out of the Project. Contractor shall specifically bind all subcontractors to the provisions of this Contract.**

ARTICLE 22 – MISCELLANEOUS

- 22.1 The duties and obligations imposed by this Agreement and the rights and remedies available to the parties and, in particular but without limitation, the warranties, guaranties and obligations imposed upon the Contractor and all of the rights and remedies available to the City, 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 Documents, and the provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents, and the provisions of this Paragraph will survive final payment and termination or completion of this Agreement.
- 22.2 The Contractor shall not assign or transfer this Agreement or its rights, title or interests. The obligations undertaken by the Contractor pursuant to this Agreement shall not be delegated or assigned to any other person or firm. Violation of the terms of this Paragraph shall constitute a material breach of Agreement by the Contractor and the City any, at its discretion, cancel this Agreement and all rights, title and interest of the Contractor which shall immediately cease and terminate.
- 22.3 The Contractor and its employees, volunteers and agents shall be and remain an independent contractors and not agents or employees of the City with respect to all of the acts and services performed by and under the terms of this Agreement. This Agreement shall not in any way be constructed to create a partnership, association or any other kind of joint undertaking or venture between the Parties.
- 22.4 The City reserves the right to audit the records of the Contractor relating in any way to the Work to be performed pursuant to this Agreement at any time during the performance and term of this Agreement and for a period of three (3) years after completion and acceptance by the City. If required by the City, the Contractor agrees to submit to an audit by an independent certified public accountant selected by the City. The Contractor shall allow the City to inspect, examine and review the records of the Contractor at any and all times during normal business hours during the term of this Agreement.

- 22.5 The remedies expressly provided in this Agreement to the City shall not be deemed to be exclusive but shall be cumulative and in addition to all other remedies in favor of the City now or later existing at law or in equity.
- 22.6 Should any part, term or provisions of this Agreement be decided by the courts to be invalid, illegal or in conflict with any state or federal law, the validity of the remaining portion or provision shall not be affected.
- 22.7 Prohibition Against Contracting With Scrutinized Companies: Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed*, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), that it is not engaged in a boycott of Israel, and that it does not have business operations in Cuba or Syria, as provided in section 287.135, Florida Statutes (2018), as may be amended or revised. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2018), as may be amended or revised, or 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 the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2018), as may be amended or revised.
- 22.8 Public Entity Crimes: In accordance with the Public Crimes Act, Section 287.133, Florida Statutes, a person or affiliate who is a contractor, consultant or other provider, 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 or services to the City, may not submit a bid on a contract with the City for the construction or repair of a public building or public work, may not submit bids on leases of real property to the City, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with the City, and may not transact any business with the City in excess of the threshold amount provided in Section 287.017, Florida Statutes, for category two purchases for a period of thirty-six (36) months from the date of being placed on the convicted vendor list. Violation of this section by Contractor shall result in cancellation of the City purchase and may result in Contractor debarment.
- 22.9 Attorney Fees: If CITY or CONSULTANT incurs any expense in enforcing the terms of this Agreement through litigation, the prevailing party in that litigation shall be reimbursed for all such costs and expenses, including but not limited to court costs, and reasonable attorney fees incurred during litigation.
- 22.10 Public Records

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 PRRCONTRACT@FORTLAUDERDALE.GOV, 954-828-5002, CITY
CLERK'S OFFICE, 100 N. ANDREWS AVENUE, FORT LAUDERDALE,
FLORIDA 33301.**

Contractor shall:

1. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
2. Upon request from the City's custodian of public records, provide the City 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 (2018), as may be amended or revised, 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 term and following completion of this contract if the Contractor does not transfer the records to the City.
4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Contract, 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 this Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

Project Name
(Contractor)
Project #

CITY

IN WITNESS OF THE FOREGOING, the parties have set their hands and seals the day and year first above written.

CITY OF FORT LAUDERDALE, a municipal
corporation of the State of Florida

By: _____
LEE R. FELDMAN, City Manager

(CORPORATE SEAL)

ATTEST:

By: _____
JEFFREY A. MODARELLI
City Clerk

Approved as to Legal Form:

By: _____
RHONDA MONTOYA HASAN
Assistant City Attorney

CONTRACTOR

WITNESSES:

CONTRACTOR.,
a Florida corporation.

By _____

Print Name_____
PRINT NAME_____
Title

ATTEST:

BY: _____

Print Name_____
PRINT NAME_____
Secretary

(CORPORATE SEAL)

STATE OF FLORIDA:
COUNTY OF BROWARD:

The foregoing instrument was acknowledged before me this _____ day of _____, 2018, by
 _____ (Name), as _____ (Title) of _____ (CONTRACTOR), a
 Florida corporation, on behalf of the Corporation.

SEAL

Notary Public, State of Florida_____
Name of Notary Typed, Printed or Stamped☐ Personally Known or ☐ Produced Identification:

Type of Identification Produced: _____

GENERAL CONDITIONS

Unless otherwise modified in the projects special conditions, the following General Conditions shall be part of the Contract:

GC - 01 - DEFINITIONS - The following words and expressions, or pronouns used in their stead, shall wherever they appear in the Contract and the Contract Documents, be construed as follows:

"Addendum" or "Addenda" - shall mean the additional Contract provisions issued in writing, by the Engineer, prior to the receipt of bids.

"Bid" – shall mean the offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

"Bidder" – shall mean any person, firm, company, corporation or entity submitting a Bid for the Work.

"Bonds" –shall mean Bid, performance and payment bonds and other instruments of security, furnished by Contractor and his surety in accordance with the Contract Documents.

"City" – shall mean the City of Fort Lauderdale, Florida, a Florida municipal corporation. In the event the City exercises its regulatory authority as a government body, the exercise of such regulatory authority and the enforcement of any rules, regulations, codes, laws and ordinances shall be deemed to have occurred pursuant to City's authority as a governmental body and shall not be attributable in any manner to the City as a party to this Contract. For the purpose of this Contract, "City" without modification shall mean the City Commission, and/or City Manager or his/her designee(s) as applicable.

"Construction Manager" - shall mean the Public Works Director or his/her designee.

"Construction Project Manager" - shall mean the Public Works Director or his/her designee.

"Consultant" – shall mean a person, firm, company, corporation or other entity employed by the City to perform the professional services for the project.

"Contract Work" - shall mean everything expressed or implied to be required to be furnished and furnished by the Contractor by any one or more of the parts of the Contract Documents referred to in the Contract hereof except Extra Work as hereinafter defined, it being understood that, in case of any inconsistency in or between any part or parts of this Contract, the Public Works Director shall determine which shall prevail.

"Design Documents" – shall mean the construction plans and specifications included as part of a Bid/Proposal Solicitation prepared either by the City or by the Consultant under a separate Agreement with the City.

"Engineer" - shall mean the Public Works Director or his/her designee.

"Extra Work" - shall mean work other than that required by the Contract.

"Inspector" – shall mean an authorized representative of the City assigned to make necessary inspections of materials furnished by Contractor and of the Work performed by Contractor.

"Notice" - shall mean written notice sent by certified United States Mail, return receipt requested, or sent by commercial express carrier with acknowledgement of delivery, or via fax or email, or by

hand delivery with a request for a written receipt of acknowledgment of delivery and shall be served upon the Contractor either personally or to its place of business listed in the Bid.

"Owner" - shall mean the City of Fort Lauderdale.

"Project Manager" - shall mean the Public Works Director or his/her designee.

"Public Works Director" -shall mean the Public Works Director of the City of Fort Lauderdale, Florida or his/her designee(s).

"Site" - shall mean the area upon or in which the Contractor's operations are carried out and such other areas adjacent thereto as may be designated as such by the Public Works Director.

"Subcontractor" - shall mean any person, firm, company, corporation or other entity, other than employees of the Contractor, who or which contracts with the contractor, to furnish, or actually furnishes labor and materials, or labor and equipment, or labor, materials and equipment at the site.

"Surety" - shall mean any corporation or entity that executes, as Surety, the Contractor's performance and payment bond securing the performance of this Contract.

GC - 02 - SITE INVESTIGATION AND REPRESENTATION - The Contractor acknowledges that it has satisfied itself as to the nature and location of the Work under the Contract Documents, the general and local conditions of the Site, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, and roads, the conformation and conditions at the ground based on City provided reports, the type of equipment and facilities needed preliminary to and during the prosecution of the Work and all other matters which can in any way affect the Work or the cost thereof under the Contract Documents.

The Contractor acknowledges that it has conducted extensive tests, examinations and investigations and represents and warrants a thorough familiarization with the nature and extent of the Contract Documents, the Work, locality, soil conditions, moisture conditions and all year-round local weather and climate conditions (past and present), and, in reliance on such tests, examination and investigations conducted by Contractor and the Contractor's experts, has determined that no conditions exist that would in any manner affect the Bid Price and that the project can be completed for the Bid Price submitted.

The Contractor, on its own, has made or caused to be made examinations, investigations, tests and studies of reports and related data in addition to those referred above, as Contractor deemed necessary to perform the Work at the Bid price set by the Contractor, within the contract time and in accordance with the other terms and conditions of the Contract Documents and the Bid made by the Contractor; and no additional examinations, investigations, tests, reports or similar data are, or will be, required by Contractor to assure that the Work can be done at the Bid price set by the Contractor.

The Contractor further acknowledges that it has satisfied itself based on any geotechnical reports the City may provide and inspection of the project Site as to the character, quality, and quantity of surface and subsurface materials to be encountered from inspecting the site and from evaluating information derived from exploratory work that may have been done by the City or included in the

Contract Documents and finds and has further determined that no conditions exist that would in any manner affect the Bid price and that the project can be completed for the Bid price submitted..

Any failure by the Contractor to acquaint itself with all the provided information and information obtained by visiting the project Site will not relieve Contractor from responsibility for properly estimating the difficulty or cost thereof under the Contract Documents. In the event that the actual subsurface conditions vary from the actual City provided reports, the Contractor shall notify the City and the Contract amount may be adjusted depending on the conditions, at the approval of the City.

GC - 03 - SUBSTITUTIONS - If the Contractor desires to use materials and/or products of manufacturer's names different from those specified in the Contract Documents, the Bidder requesting the substitution shall make written application as described herein. The burden of proving the equality of the proposed substitution rests on the Bidder making the request. To be acceptable, the proposed substitution shall meet or exceed all expressed requirements of the Contract Documents and shall be submitted upon the Contractor's letterhead, in addition to the "Contractor's Request for Substitution" form provided by the Public Works Director. The following requirements shall be met in order for the substitution to be considered:

1. Requests for substitution shall reach the Public Works Director no less than ten (10) Working Days prior to the date set for opening of Bids; and
2. Requests for substitution shall be accompanied by such technical data, as the party making the request desires to submit. The Public Works Director will consider reports from reputable independent testing laboratories, verified experience records from previous users and other written information valid in the circumstances; and
3. Requests for substitution shall completely and clearly indicate in what respects the materials and/or products differ from those indicated in the Contract Documents; and
4. Requests for substitution shall be accompanied by the manufacturer's printed recommendations clearly describing the installation, use and care, as applicable, of the proposed substitutions; and
5. Requests for substitution shall be accompanied by a complete schedule of changes in the Contract Documents, if any, which must be made to permit the use of the proposed substitution; and

If a proposed substitution is approved by the Public Works Director, an Addendum will be issued to prospective bidders not less than three (3) working days prior to the date set for opening of Bids. Unless substitutions are received and approved as described above, the successful Bidder shall be responsible for furnishing materials and products in strict accordance with the Contract Documents.

GC - 04 - CONTROL OF THE WORK - The Public Works Director shall have full control and direction of the Work in all respects. The Public Works Director and/or his authorized designee(s) shall, at all times, have the right to inspect the Work and materials. The Contractor shall furnish all reasonable facilities for obtaining such information, as the Public Works Director may desire respecting the quality of the Work and materials and the manner of conducting the Work. Should the Contractor be directed or permitted to perform night Work, or to vary the period which work is ordinarily carried on in the daytime, he shall give ample notice to the Public Works Director so that proper and adequate inspection may be provided. Such Work shall be done only under such regulations as are furnished in writing by the Public Works Director, and no extra compensation shall be allowed to the Contractor therefore. In the event of night work, the Contractor shall furnish such light, satisfactory to the Public Works Director, as will insure proper inspection. Nothing

herein contained shall relieve the Contractor from compliance with any and all City ordinances relating to noise or Work during prohibited hours.

The Contractor shall keep the Public Works Director informed, a reasonable time in advance, as to his need for grades and lines in order that the same may be furnished and all necessary measurements made for records and for payment with the minimum of inconvenience to the Public Works Director or of delay to the Contractor. The Contractor shall submit to the Public Works Director or Inspector on the job a written request outlining the streets, etc., for which the Contractor desires lines and grades. It is the intention not to delay the Work for the giving of lines and grades, but when necessary, work operations shall be suspended for such reasonable time as the Public Works Director may require for this purpose. However, such cost increases shall be authorized either by the City Manager and/or designee, or the City Commission based upon the purchasing threshold amounts provided for in Chapter 2 of the City of Fort Lauderdale's Code of Ordinances.

GC - 05 - SUBCONTRACTOR - The Contractor shall not sublet, in whole or any part of the Work without the written consent and approval of the Public Works Director. Within ten (10) days after official notification of starting date, the Contractor must submit in writing, to the Public Works Director, a list of all Subcontractors. No Work shall be done by any Subcontractor until such Subcontractor has been officially approved by the Public Works Director. A subcontractor not appearing on the original list will not be approved without written request submitted to the Public Works Director and approved by the Public Works Director. In all cases, the Contractor shall give his personal attention to the Work of the Subcontractors and the Subcontractor is liable to be discharged by the Contractor, at the direction of the Public Works Director, for neglect of duty, incompetence or misconduct.

Acceptance of any Subcontractor, other person, or organization by the Public Works Director shall not constitute a waiver of any right of Public Works Director to reject defective Work or Work not in conformance with the Contract Documents.

Contractor shall be fully responsible for all acts and omissions of his Subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that he is responsible for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any contractual relationship between City and any Subcontractor or other person or organization having a direct contract with Contractor, nor shall it create any obligation on the part of City to pay or to see to the payment of any moneys due to any Subcontractor or other person, or organization, except as may otherwise be required by law.

GC - 06 - QUANTITIES - It is mutually agreed that the proposal shows the approximate amounts only along with the Plans and the general location. It is also mutually agreed that no change will be made involving any departure from the general scheme of the Work and that no such change involving a material change in cost, either to the City or Contractor, shall be made, except upon written permission of the City. However, the Public Works Director shall have the right to make minor alternations in the line, grade, plan, form or materials of the Work herein contemplated any time before the completion of the same. That if such alterations shall diminish the quantity of the Work to be done, such alterations shall not constitute a claim for damages or anticipated profits. That if such alterations increase the amount of the Work to be done, such increase shall be paid for according to the quantity actually performed and at the unit price or prices stipulated therefore in the Contract.

The City shall, in all cases of dispute, determine the amount or quantity of the several kinds of Work which are to be paid for under this Contract, and shall decide all questions relative to the execution of the same, and such estimates and decisions shall be final and binding.

Any Work not herein specified, which might be fairly implied as included in the Contract, of which the City shall judge, shall be done by the Contractor without extra charge. However, such cost increases shall be authorized either by the City Manager and/or designee, or the City Commission based upon the purchasing threshold amounts provided for in Chapter 2 of the City of Fort Lauderdale's Code of Ordinances.

GC-07 - NO ORAL CHANGES - Except to the extent expressly set forth in the Contract, no change in or modification, termination or discharge of the Contract in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the parties charged, therewith or their duly authorized representative.

GC - 08 - PERMITS AND PROTECTION OF PUBLIC – Permits on file with the City and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Contract. A copy of all permits shall be given to the City and become part of the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

The Contractor shall be required to observe all the ordinances in relation to obtaining permits for occupying, excavating, or in any way obstructing the streets and alleys. He shall erect and maintain barricades and sufficient safeguards around all excavations, embankments or obstructions; he shall place sufficient warning lights at or near the Work; keep the same burning from sunset to sunrise, employ watchmen, and strictly obey all laws and ordinances controlling or limiting those engaged in similar work.

Where there are telephones, light or power poles, water mains, conduits, pipes or drains or other construction, either public or private, in or on the streets or alleys, the Work shall be so conducted that no interruption or delay will be caused in the operation or use of the same. Proper written notice shall be given, and all the facilities, afforded the owners of such construction encountered or likely to be encountered, as will enable them to preserve the same from injury.

The Contractor shall not be permitted to interfere with public travel and convenience by grading or tearing up streets indiscriminately, but the Work of constructing the various items in this contract shall proceed in an orderly, systematic and progressive manner.

Contractor shall not load nor permit any part of any structure to be loaded with weights that will endanger the structure, nor shall he subject any part of the Work to stresses or pressures that will endanger it.

Where lifting operations involving the use of specialized cranes are required as part of construction, Contractor must make undertake the following investigation and submit the results and documentation to the Engineer prior to commencing any lifting operations: marking a very specific area in the field for the placement of the crane; a drawing showing the limitations of the job operation (i.e. not over adjacent properties or pedestrian and high vehicular traffic areas); underground utility exploration in the vicinity of the crane location, which may include ground penetrating radar to identify voids or old pipe or other subsurface features that could lead to sudden failure; assessment of the underlying soil and roadway materials and a worst case analysis based on entire load being distributed on just one or two outriggers; provision of properly sized pads under the outriggers; loading charts from manufacturer showing allowable configurations/loads; and inspection to make sure crane operation is in accordance with the permit conditions.

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2. Project or Improvement Number
3. Job Description
4. Estimated Cost
5. Completion Date

Minimum size of sign shall be four feet high, eight feet wide and shall be suitably anchored. The entire sign shall be painted and present a pleasing appearance. Exact location of signs will be determined in the field. Two (2) signs will be required, one at each end of the job. All costs of this work shall be included in other parts of the work.

GC - 16 - FLORIDA EAST COAST RIGHT-OF-WAY - Whenever a City contractor is constructing within the Florida East Coast Railway Company's Right-of-Way, it will be mandatory that the contractor carry separate bodily injury and property damage insurance in the amounts as stated below. This insurance shall be taken out and maintained during the life of the Contract.

Bodily injury insurance in an amount not less than \$500,000.00 for injuries, including wrongful death to any one person, and subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of any one occurrence, and

Property damage insurance in an amount not less than \$500,000.00 for damages on account of any one occurrence and in an amount not less than \$1,000,000.00 for damages on account of all occurrences.

GC - 17 - ACCIDENTS - The Contractor shall provide such equipment and facilities as are necessary and/or required, in the case of accidents, for first aide services to be provided to a person who may be injured during the project duration. The Contractor shall also comply with the OSHA requirements as defined in the United States Labor Code 29 CFR 1926.50.

In addition, the Contractor must report immediately to the Public Works Director every accident to persons or damage to property, and shall furnish in writing full information, including testimony of witnesses regarding any and all accidents.

GC - 18 - SAFETY PRECAUTIONS - Contractor must adhere to the applicable environmental protection guidelines for the duration of a project. If hazardous waste materials are used, detected or generated at any time, the Project Manager must be immediately notified of each and every occurrence. The Contractor shall comply with all codes, ordinances, rules, orders and other legal requirements of public authorities (including OSHA, EPA, DERM, the City, Broward County, State of Florida, and Florida Building Code), which bear on the performance of the Work.

The Contractor shall take the responsibility to ensure that all Work is performed using adequate safeguards, including but not limited to: proper safe rigging, safety nets, fencing, scaffolding, barricades, chain link fencing, railings, barricades, steel plates, safety lights, and ladders that are necessary for the protection of its employees, as well as the public and City employees. All riggings and scaffolding shall be constructed with good sound materials, of adequate dimensions for their intended use, and substantially braced, tied or secured to ensure absolute safety for those required to use it, as well as those in the vicinity. All riggings, scaffolding, platforms, equipment guards, trenching, shoring, ladders and similar actions or equipment shall be OSHA approved, as applicable, and in accordance with all Federal, State and local regulations.

GC - 19 - DUST PREVENTION - The Contractor shall, by means of a water spray, or temporary asphalt pavement, take all necessary precautions to prevent or abate a dust nuisance arising from dry weather or Work in an incomplete stage. All costs of this Work shall be included in cost of other parts of the Work.

Should the Contractor fail to abate a dust nuisance by the above methods, and then he will be required to immediately construct temporary patches per City standards.

GC - 20 - PLACING BARRICADES AND WARNING LIGHTS - The Contractor shall furnish and place, at his own expense, all barricades, warning lights, automatic blinker lights and such devices necessary to properly protect the work and vehicular and pedestrian traffic. Should the Contractor fail to erect or maintain such barricades, warning lights, etc., the Public Works Director may, after 24 hours' notice to the Contractor, proceed to have such barricades and warning lights placed and maintained by City or other forces and all costs incurred thereof charged to the Contractor and may be retained by the City from any monies due, or to become due, to the Contractor.

GC - 21 - TRAFFIC CONTROL - The Contractor shall coordinate all Work and obtain, through the City's Transportation and Mobility Department, Broward County, Florida Department of Transportation, as applicable, any permits required to detour traffic or close any street before starting to work in the road. The following section: Part VI Traffic Controls for Street and Highway Construction and Maintenance Operations, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, U.S. Department of Transportation Federal Highway Administration, 2009, or current edition, shall be used as a guide for requirement and placement of traffic control devices, signs and barricades. The Public Works Director shall determine requirements for the above. The above publication is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. In the event that a Maintenance of Traffic (MOT) Plan is required, the Plan shall be prepared by an A.A.S.T.A. certified technician.

All traffic control devices, flashing lights, signs and barricades shall be maintained in working condition at all times.

GC - 22 - COORDINATION - The Contractor shall notify all utilities, transportation department, etc., in writing, with a copy to the Public Works Director before construction is started and shall coordinate his Work with them. The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal, construction and rearrangement operations in order that services rendered by these parties will not be unnecessarily interrupted.

The Contractor shall arrange his Work and dispose of his materials so as to not interfere with the operation of other Contractors engaged upon adjacent work and to join his Work to that of others in a proper manner and to perform his Work in the proper sequence in relation to that of other Contractors all as may be directed by the Public Works Director.

Each Contractor shall be responsible for any damage done by him or his agents to the work performed by another Contractor.

The Contractor shall contact the Broward County Transportation Department and the Florida Department of Transportation, as applicable, to verify and obtain location of any and all traffic conduits, loops, and street light underground services.

GC - 23 - WATER - Bulk water used for construction, flushing pipelines, and testing shall be obtained from fire hydrants. Contractor shall make payment for hydrant meter at Treasury Billing Office, 1st Floor, City Hall, 100 N. Andrews Avenue. With the paid receipt, contractor can pick up hydrant meter at the utility location office. No connection shall be made to a fire hydrant without a meter connected.

GC - 24 - PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES - Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed*, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), that it is not engaged in a boycott of Israel, and that it does not have business operations in Cuba or Syria, as provided in section 287.135, Florida Statutes (2018), as may be amended or revised. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2018), as may be amended or revised, or 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 the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2018), as may be amended or revised.

GC - 25 - LOCATION OF UNDERGROUND FACILITIES - If the Proposer, for the purpose of responding to this solicitation, requests the location of underground facilities through the Sunshine State One-Call of Florida, Inc. notification system or through any person or entity providing a facility locating service, and underground facilities are marked with paint, stakes or other markings within the City pursuant to such a request, then the Proposer shall be deemed non-responsive to this solicitation in accordance with Section 2-184(5) of the City of Fort Lauderdale Code of Ordinances.

GC - 26 - USE OF FLORIDA LUMBER TIMBER AND OTHER FOREST PRODUCTS - In accordance with Florida Statute 255.20 (3), The City specifies that lumber, timber, and other forest products used for this project shall be produced and manufactured in the state of Florida if such products are available and their price, fitness, and quality are equal. This requirement does not apply to plywood specified for monolithic concrete forms, if the structural or service requirements for timber for a particular job cannot be supplied by native species, or if the construction is financed in whole or in part from federal funds with the requirement that there be no restrictions as to species or place of manufacture.

The Bidder affirms by submitting a bid response to this solicitation that they will comply with section 255.20 (3) Florida Statutes.

GC - 27 - PUBLIC RECORDS/TRADE SECRETS/COPYRIGHT: The Proposer's response to the Solicitation is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this Solicitation and the Contract to be executed for this Solicitation, subject to the provisions of Chapter 119.07 of the Florida Statutes.

Any language contained in the Proposer's response to the Solicitation purporting to require confidentiality of any portion of the Proposer's response to the Solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City which the Proposer

claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Proposer shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer's response to the Solicitation constitutes a Trade Secret. The City's determination of whether an exemption applies shall be final, and the proposer agrees to defend, indemnify, and hold harmless the City and the City's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the City's treatment of records as public records. Proposals purporting to be subject to copyright protection in full or in part will be rejected.

EXCEPT FOR CLEARLY MARKED PORTIONS THAT ARE BONA FIDE TRADE SECRETS PURSUANT TO FLORIDA LAW, DO NOT MARK YOUR RESPONSE TO THE SOLICITATION AS PROPRIETARY OR CONFIDENTIAL. DO NOT MARK YOUR RESPONSE TO THE SOLICITATION OR ANY PART THEREOF AS COPYRIGHTED.

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:

Telephone Number: (954) 828-5002

Mailing Address: City Clerk's Office
100 N. Andrews Avenue
Fort Lauderdale, FL 33301

E-mail: prcontract@fortlauderdale.gov

Contractor shall:

1. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
2. Upon request from the City's custodian of public records, provide the City 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 (2018), as may be amended or revised, 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 term and following completion of this contract if the Contractor does not transfer the records to the City.
4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Contract, 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 this Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

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SECTION 011101
SUMMARY OF WORK

PART 1 GENERAL

1.01 LOCATION OF WORK

- A. All of the Work of this Contract is located in easements, rights-of-way, or on property owned by the City of Fort Lauderdale.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. The completed Work will provide the City with a demonstration of mechanical integrity for each of the five (5) existing Class I injection wells just south of the George T. Lohmeyer Wastewater Treatment Plant at 1000 SE 21 Street, Fort Lauderdale, Florida. The project consists of furnishing all labor, materials and equipment to perform mechanical integrity testing (MIT) of five (5) existing Class I injection wells. The Injection Wells have a 24-inch outside diameter (OD), 0.500-inch wall thickness injection casing set to total depths of 2,800 to 2,820 feet below land surface (bls) and were constructed with a nominal 22-inch diameter open borehole extending from the bottom of the casing to approximately 3,305 to 4,010 feet bls. The Work to perform the MIT at each injection well includes but is not limited to:
1. Contractor shall take only one injection well offline at a time and pump clear water into the well to prepare for the video survey.
 2. Contractor shall perform well video surveys documenting conditions prior to and after brushing the casing interior.
 3. Contractor shall perform cleaning casing interior using casing brush.
 4. Contractor shall perform a casing pressure test.
 5. Contractor shall perform temperature logging and background gamma ray logging.
 6. Contractor shall perform a Radioactive Tracer Survey (RTS).
 7. Contractor shall furnish and install replacement wellhead hardware (316 stainless steel nuts/bolts, galvanic protection, gaskets).
 8. Contractor shall comply with plant security restrictions.
 9. Contractor shall prepare surfaces and paint wellhead pipes, fittings and valves.
 10. Contractor shall perform site cleanup after completion of MIT activities.
 11. Contractor shall furnish and install all associated and appurtenant items and perform work as specified herein and required by the City and delineated in the Contract.
- B. The completed Work will provide the City with new flowmeters, pressure indicating transmitters, painting, and required appurtenances for installation at each injection well. The new flowmeters shall replace the existing effluent transit time flowmeters. The new pressure indicating

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transmitters shall replace the existing pressure indicating transmitters. The Work includes, but is not limited to, the following project components:

1. Contractor shall purchase five new flow meters, pressure indicating transmitters, power and control appurtenances, and associated equipment as specified in Sections 406113 and 409140 and project figures.
 2. Contractor shall provide all materials, labor, and equipment to install the new flow meters, pressure transmitters, and appurtenances at Injection Well Nos. 1, 2, 3, 4, and 5. Construction includes piping, fittings, signal cables, electrical cables, and appurtenances.
 3. Contractor shall provide all materials, labor, and equipment to connect each new flowmeter and pressure transmitter to the existing Owner's Supervisory Control and Data Acquisition (SCADA) system as specified in Sections 406113 and 409140 and the project figures.
 4. Contractor shall provide all materials, labor, and equipment to connect each new flowmeter and pressure transmitter to the existing electrical service feeds near each injection well as specified in Sections 406113 and 409140 and the project figures.
 5. Contractor shall provide all materials, labor, and equipment to construct aboveground flowmeter and pressure transmitter controller stanchion supports as shown on the project figures.
 6. Contractor shall coordinate with the George T. Lohmeyer Wastewater Treatment Plant Operator for the closing of all necessary valves on the 30-inch diameter injection well and force main piping.
 7. Contractor shall be responsible for all material, labor, and equipment necessary to transport materials and equipment to the project site to complete the Work.
- C. The completed Work will provide the Owner with the repair of the 30-inch diameter above ground concrete collars surrounding the Prestressed Concrete Cylinder Pipe (PCCP) effluent force main sections near each injection well. The Work includes, but is not limited to, the following project components:
1. Contractor shall provide all materials, labor, and equipment to repair the above ground concrete collars of the 30-inch diameter PCCP effluent force main at each well. Each above ground concrete collar segment shall be repaired as depicted on the project figures.
 2. Contractor shall coordinate with the George T. Lohmeyer Wastewater Treatment Plant Operator for the closing of all necessary valves on the 30-inch diameter force main piping.
 3. Contractor shall provide all materials, labor, and equipment to install new flange by grooved end piping and coupling as depicted on the project figures.
 4. Contractor shall clean and pressure-test the newly installed pipe segments.
 5. Contractor shall be responsible for all material, labor, and equipment necessary to transport materials and equipment to the project site to complete the Work.

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- D. The Contractor shall perform the work complete, in place, and ready for continuous service, and shall include repairs, testing, permits, cleanup, replacements and restoration required to restore the areas disturbed by construction to a condition similar to what existed prior to the starting of the Work.
- E. It is the intent of the City to obtain a complete functional, and satisfactory installation under this project, and any items of labor, equipment or materials which may be reasonably assumed as necessary to accomplish this end shall be supplied whether or not they are specifically shown on any plans which may be supplied or stated herein. The Contractor shall provide all materials for the project unless they are specifically called out in these specifications as being supplied by the City. The Contractor shall also supply all sheeting, shoring, bracing and all other labor, material or equipment required to preclude damage to, or loss of functionality of, any existing facility or system.
- F. The Contractor is alerted that various "Standards" are used herein for reference and criteria and that he should obtain copies for his general use and protection. Abbreviated titles are used throughout these Specifications and although most of them are widely known, their complete titles are given below in order to avoid any misunderstanding.

AASHTO	American Association of State Highway and
Transportation Officials ACI	American Concrete Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute ASTM
	American Society of Testing and Materials ASME
	American Society of Mechanical Engineers AWSC
	American Welding Society Code
AWWA	American Water Works Association CRSI
	Concrete Reinforcing Steel Institute
CS	Commercial Standards-U.S. Dept. of Commerce FDEP
	Florida Department of Environmental Protection DOT
	Department of Transportation-State of Florida
FS	Federal Specifications
FBC	Florida Building Code
NBFU	National Board of Fire Underwriters
NBS	National Bureau of Standards-U.S. Dept. of
	Commerce
NSF	National Sanitation Foundation
OSHA	Occupational Safety & Health Act
PCA	Portland Cement Association
SFWMD	South Florida Water Management District SPR
	Simplified Practice Recommendations
UL	Underwriters Laboratories, Inc.

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1. The above list shall not be considered complete, as there are other "Standards" used; however, in most cases complete titles have been given.
 2. Wherever "Standards" are indicated herein for reference, the referenced portion shall have the same force and effect as if it were included herein in its entirety, latest revision if date of publication not shown.
- G. The Contractor shall comply with all municipal, county, state, federal, and other codes which are applicable to the proposed construction work. This includes but is not limited to provisions under the Florida Department of Environment Protection (FDEP), Florida Department of Transportation (FDOT), Broward County Environmental Protection and Growth Management Division, Broward County Environmental Engineering and Permitting Division (BCEEPD), FEC Railroad, US Army Corps of Engineers, and US Coast Guard.
- 1.03 WORK NOT COVERED BY CONTRACT
- A. Not applicable.
- 1.04 OWNER-FURNISHED ITEMS
- A. Mechanical Integrity Test Plan and Milestone Dates
1. FDEP UIC Operating Permit for Class I Injection Wells IW-1, IW-2, IW-3 IW-4 and IW-5
- 1.05 PERMITS
- A. Upon Notice of Award, the Contractor shall immediately apply for necessary permits from pertinent regulatory agencies. No testing shall begin until the necessary permits and approvals have been obtained.
- B. The Contractor shall familiarize himself with, and comply with, all requirements of these permits. The Contractor shall obtain all other necessary permits.
- C. The Contractor's particular attention is called to any Special Conditions of the permits relating to special testing requirements, disposal of hazardous materials, and all other general and special conditions. In the event any of the conditions of the permits are in conflict with the requirements of these Specifications, the more stringent conditions of the permits shall take precedence.
- D. Any deviations from the Specifications or permits appended thereto; must first be approved by the Engineer, even if approval for the change has been given by the permitting agency.
- E. The Contractor shall assume throughout the life of the Contract all obligations and responsibilities imposed on the City as permittee of the above-mentioned permits. All expenses necessary for compliance with the regulations and requirements of each permitting agency and its permit shall be paid by the Contractor and shall be included in his overall bid price allowance.
- F. The cost of any fees such as impact fees, inspection fees, etc. and the cost of obtaining all required permits shall be borne by the City. The Contractor shall pay the required fees, obtain the permit(s) and then upon submission of proof of cost to the City, be reimbursed for said cost out of the Approved Allowance Permit Fee Reimbursement item. This shall apply only to required permits

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and fees. Permits obtained or fees paid for the advantage of the Contractor or non-required permits obtained for whatever reason shall not be reimbursed. The necessity or non-necessity of a permit or fee shall be determined by the Engineer whose word shall be final. As specified in the paragraph above, all costs of compliance with the permit(s) shall be borne by the Contractor and included in his bid price. It shall be the Contractor's responsibility to secure all permits not specified herein that are required to initiate and complete the Work under this contract, except permits obtained by the City.

1.06 CONTRACTOR'S AND DRILLER'S QUALIFICATIONS

- A. Award of this Contract will be made to the responsive, responsible bidder who submits an offer on all items listed in the Solicitation and whose offer represent the lowest price when all items are added in the aggregate. If a bidder fails to submit an offer on all items, its overall offer will be rejected. The City will award the total Contract to a single Contractor who has complied with these requirements.
- B. In order to aid the City in making an award of the Contract, the Bidder shall submit, with his Offer, written evidence of its qualifications and ability to begin construction, to perform in a satisfactory manner, and to complete all of the work covered by the Contract within the time specified in the Solicitation. Bidder shall submit proof of at least three similar projects within the past 5 years involving testing of Floridan Aquifer wells and/or UIC permitted injection wells of 24-inch OD casing and to a depth of at least 2,500 feet below land surface. Specialized testing activities including coring, inflatable packer testing, mechanical integrity testing, cement bond logging, temperature logging and water quality sampling must have been completed to demonstrate relevant experience. Failure to submit this information with the bid may be cause for the Bidder to be deemed non-responsive.
- C. The bidder shall submit, among other things, the name the proposed superintendent (specifically), driller, logger, and detailed information identifying all personnel to be utilized on this project and written evidence with respect to the following:
 - 1. The bidder has a trained and competent organization which has done work of similar character and value.
 - 2. The bidder will have available to do the work at the proper time or times, adequate equipment and facilities, listing such equipment and facilities in such detail that they can be quickly and accurately checked.
 - 3. The bidder has sufficient repair parts and supplies to maintain all equipment and facilities properly and with a minimum of delay.
 - 4. The bidder has experience in drilling in the geologic formations of South Florida penetrated by City's wells; including depth greater than 2,500 feet below land surface.
 - 5. The bidder has experience in working with wells under the high artesian pressures that will be encountered in the wells in South Florida.
 - 6. The Geophysical Contractor holds a valid State of Florida Water Well Contractor License issued by the South Florida Water Management District.

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7. The bidder holds a license from the Florida HRS Bureau of Radiation Control for the required geophysical logging that will be performed under this Contract.
 8. The logging vehicle is licensed ("placcable") by the Florida Department of Transportation for the of radioactive materials.
 9. The driver of the logging vehicle has a Commercial Driver's License with an "H" endorsement for radioactive materials.
- D. Chapter 489 of the Florida Statutes, and the rules of the State of Florida Department of Professional Regulation shall govern the qualification for Contractors and subcontractors. No Contractor or subcontractor shall be required to possess any other professional designation or affiliation in order to be eligible to bid on this project, except those stated in this solicitation. Unless prohibited by law, nothing shall prevent the City from requiring proof of sufficient expertise and skill to qualify for the subject project.
- E. Bidders are directed to PART 3 of this section, Article 3.02, for more information and additional submittals required for this Solicitation. Bidder's shall submit to the Engineer the following information as part of the bid package, but not limited to, references, resumes, list of equipment, list of subcontractors, and other information required by this solicitation.
- 1.07 EQUIPMENT REQUIREMENTS
- A. Equipment will not be furnished by the City under this Contract. All material, labor and equipment necessary for completion of the work shall be furnished by the Contractor.
- B. The work shall be performed by a competent crew with equipment that is adequate to complete all phases of the testing and instruments of sufficient accuracy and resolution to identify anomalous responses to the tests. If the Contractor's equipment is not capable of satisfactorily performing the work provided for in these specifications, the Contractor at his own expense shall substitute equipment.
- C. The Contractor's equipment shall be clean and well maintained and in good operating condition when delivered to the site and during the entire operation.
- D. All equipment shall be provided with safety devices as required by governmental authorities having jurisdiction.
- E. The Contractor's equipment must be in first class operating condition, including proper mufflers and other silencing accessories. All equipment must be properly lubricated on a special maintenance type schedule to reduce noise, including tracks, rollers, idlers, sheaves and other noise producing components. Care must be taken to prevent oil spillage of any kind or oil dripping from equipment. If the equipment used proves less than satisfactory, in the opinion of the Engineer, he will have the right to order the Contractor to immediately modify the equipment to make it satisfactory, or to change to other equipment that is satisfactory at no additional cost to the City.
- F. The Contractor must use either a continuous tube or conventional drill rig to clean the casing and position and set the packer. The Contractor must have a suitable blow-off protection device for each well-being worked. The equipment must be of adequate size and of suitable design to accomplish the required tasks. The Contractor must also provide a crane or other lifting devices

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of sufficient size to support any devices and the disassembled wellhead. The pressure gauge for the documentation of mechanical integrity shall be a Heise Model CMM-12, 0-200 psig, or approved equal, and shall be calibrated by a local testing laboratory approved by the Engineer using a dead weight test and shall be certified.

- G. The Contractor shall also have sufficient devices, stand pipes, pack-offs and related equipment to perform the tasks in an efficient manner. The television and video equipment shall be capable of high-quality DVD format in color.

1.08 OPERATING REQUIREMENTS

- A. All work shall comply with the City's ISO 14001 checklist and be in full conformance with the approved Mechanical Integrity Test Plan submitted to FDEP together with subsequent response letters for the injection wells at the G.T. Lohmeyer Wastewater Treatment Plant deep well field and with the appropriate sections of Chapter 62-528 FAC.
- B. The Contractor shall carefully coordinate his activities with the City to minimize interference with any existing operations or the operations of the City's G.T. Lohmeyer WWTP. City forces will isolate the well and turn over to the Contractor testing. Existing valves shall only be operated by City personnel. The Contractor's personnel, under no circumstances, shall operate any such valve. Additionally, the City's fueling stations must not be blocked.
- C. The Contractor shall provide all barricades and/or flashing warning lights necessary to warn workers and employees of the testing throughout the Project. This shall be done at the Contractor's expense and to the satisfaction of the Engineer. Every effort must be made to reduce inconvenience and nuisances to a minimum.
- D. The Contractor shall at all times, use the main entrance to the Injection Wells site to bring in materials, equipment etc. required for the Project. Materials and equipment shall be stored in areas designated by the City's WWTP operations staff and shall not interfere with the daily operations at the site or with other Projects. Suitable platforms shall be used for material storage to prevent damage to the landscaping.
- E. The Contractor shall exercise extreme caution when transporting equipment or materials within the Injection Wells area. The conveying vehicles shall be properly selected, and equipped, to prevent damage to paved areas, landscaping and other existing facilities including wells, well pads, fencing, underground pipelines, pipe chases, etc. If necessary, suitable wooden skids shall be used to distribute loads, and to prevent damage.
- F. If any of the above existing structures, including the wells, or any other parts of the project area, are damaged, the Contractor shall make suitable repairs or replacement at his expense, in a manner described by the Engineer, and to his satisfaction.
- G. It is essential that salty or brackish water of effluent produced from any source during testing operations is prevented from contaminating the shallow aquifer, which may contain fresh water. Any water produced during testing shall be confined to the drilling pads. The testing will be accomplished using systems designed and constructed so that under no conditions shall there be an overflow. The Contractor shall be required to take all necessary steps to prevent accidental spillages from occurring. The County may charge the Contractor for any cost incurred or penalties imposed on the City as a result of such spillage.

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- H. The Contractor shall provide all facilities, equipment and materials required for the removal of waste fluids from the well site.
- I. Storage Areas - Storage areas shall be provided within the designated testing area. Responsibility for protection and safekeeping of equipment and materials at or near the sites will be solely that of the Contractor and no claim shall be made against the Owner by reasons of any act of an employee or trespasser. The Contractor shall coordinate with the Owner in selection of storage areas not likely to impede other activities on the site. Should an occasion arise necessitating access to an area occupied by stored equipment and/or materials, the Contractor shall immediately move the stored material. No equipment or materials shall be placed upon the Owner's property until approval has been received from the Owner. Upon completion of the Contract, the Contractor shall remove from the storage areas all of their equipment, temporary fencing, surplus materials, rubbish, etc., and restore the area as designated by the Owner.
- J. Erosion Abatement and Water Pollution - It is imperative that any Contractor activities, including tests requiring the pumping of water, do not contaminate or disturb the environment of the properties adjacent to the work. The Contractor shall, therefore, schedule and control his operations to confine all runoff water from disturbed surfaces. Water from operations that becomes contaminated with lime silt, muck, and other deleterious matter, fuels, oils, bitumens, chemicals, and other polluting materials shall be disposed of in an environmentally safe manner.
- K. Security - The Contractor shall care for and protect against loss or damage of all material to be incorporated in the construction for the duration of the Project and shall repair or replace damaged or lost materials and damage to structures and equipment.
- L. Work schedule – The work schedule will be from 8:00 a.m. to 5:00 p.m. Monday through Friday excluding holidays. Once Contractor mobilization to the site has been completed, work will be done on consecutive days, exclusive of weekends and holidays until the project is completed.
- 1.09 CREW REQUIREMENTS
- A. The Contractor shall have not less than 5 years' experience in constructing and testing wells and shall have tested not less than 5 wells of similar type and capacity.
- B. The Contractor shall comply with the OSHA regulations contained in 29CFR Section 1910 for General Industry Regulations and 29CFR Section 1926 for Construction Regulations.
- 1.10 REQUIRED REPORTS FROM THE CONTRACTOR
- A. The Contractor shall furnish three field copies of each geophysical log of the well on the same day the logs are run on completion of well testing. Logs shall be in a clear, concise form meeting the approval of the Engineer. The pressure testing of the casing shall be documented by a recording pressure chart and a log with the pressure recorded every ten minutes for one hour. Any deviations from the schedule shall be noted. Furnish three digital/electronic copies via portable USB flash drive
- B. The video television surveys shall be recorded digitally and subsequently submitted on portable USB flash drives (three copies). The Contractor shall furnish the City three field copies of each video television survey of the well on the same day the well is surveyed after the completion of the survey.

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- C. The results of the RTS and the Television survey will be submitted to the FDEP. It is anticipated that there will be members of the FDEP witnessing components of the testing and their input will be solicited by the Engineer. The results of these procedures must satisfy F.A.C. FDEP Chapter 62-528 requirements for Mechanical Integrity Testing. Copies of all testing must be provided in the amount required by FDEP and the City's Consultant witnessing all field activities. Well testing superintendent shall maintain complete and current logs and daily notes for the testing of the well.

1.11 SAFETY REQUIREMENTS

- A. The Contractor shall be in compliance with all applicable provisions of the Occupational Safety and Health Act of 1970. The Contractor's Manual of Safety Practices, dealing with the firm's policies on field safety procedures for employees shall be submitted to the City for review before "Notice to Proceed" will be issued.
- B. The Contractor shall conduct his operations in such a manner (utilizing warning devices, such as traffic cones, barricades and warning lights) that the public and employees of the City are given adequate warning of hazards of the work site as may be deemed necessary.
- C. The Contractor's personnel may be in the vicinity of raw sewage. For his own protection, as well as for his employees, he shall check with the City's Public Works Utilities Department, and based on their recommendation, shall have his personnel properly immunized against disease.

1.12 WATER USE DURING CONSTRUCTION AND TESTING

- A. The City will furnish water for general construction free of charge from fire hydrants on the site where available. However, all water must be metered through a City meter and two reduced pressure zone (RPZ) backflow prevention device must be installed in series. Failure of the contractor to meter the water, or providing others with water, could result in his being fined and/or a citation being issued against him in accordance with the rules and regulations of the City's Tampering Section. Failure of the contractor to install the RPZ device could result in contamination of the City's potable water supply and result in the Contractor being fined and/or citations being issued against him by environmental regulatory agencies.
- B. The Contractor can obtain the temporary meter through proper application and payment of deposit fee at the City's Bulk water used for construction, flushing pipelines, and testing shall be obtained from fire hydrants. Contractor shall make payment for hydrant meter at Treasury Billing Office, 1st Floor, City Hall, 100 N. Andrews Avenue. With the paid receipt, contractor can pick up hydrant meter at the utility location office. No connection shall be made to a fire hydrant without a meter connected. The deposit fee will be refunded to the Contractor upon the return of the meter in a sound, satisfactory condition.
- C. All water necessary shall be furnished by the Contractor from an approved source. Under no circumstance shall the Contractor utilize a water source until such source has been approved for use by the Engineer.
- D. All temporary piping, valves, hoses, equipment and other items required for handling water shall be furnished by the Contractor.

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1.13 HURRICANE PREPAREDNESS

- A. General: During such periods of time as are designated by the United States Weather Bureau as being a hurricane alert, the Contractor shall perform all precautions as necessary to safeguard the work and property, including the removal of all small equipment and materials from the site, lashing all other equipment and materials to each other and to rigid construction, and any other safety measures as may be directed by the Engineer.
- B. Upon Notification of a Hurricane Watch: Contractor should reassemble all deep wells and remove all equipment and plan to return within 24 hours after Watch is lifted if no impact, or within 72 hours of a hurricane impact to the site and after FDEP has been notified. Provide formal notification to all Contractors to prepare and submit for approval a Plan of Action for the specific actions to be taken on their particular projects.

1.14 COORDINATION WITH THE CITY AND OTHER CONTRACTORS

- A. The City reserves the right to enter upon, and to use, any and all portions of the work performed hereunder (or under its other Contracts), whether completed or not as may be required.
- B. In no event will this Contractor be permitted to block the work area of other Contractors with equipment or materials, unless otherwise permitted by the City.
- C. Construct Project in an orderly and progressive fashion as specified in Section 3.00 - Sequence of Construction and General Information, so that other Contractors can continue their work, also in an orderly and progressive manner as planned.
- D. Be responsible for coordinating the work with that of other Contractors, and for cooperating with them, and with the City, to the fullest extent.
- E. The City will act as mediator in all cases of conflict and dispute involving the Work, or scheduling of the Work, under the various Contracts, and his decision concerning the disposition of each such conflict or dispute shall be final and binding on all parties involved.
- F. The Contractor shall coordinate with the City and Plant Maintenance forces to avoid disruption of the Wastewater Treatment Plant's operation. Any charges and or penalties for impact to the Plant's operation caused by negligence or neglect of the Contractor of this project shall be withheld from payments.

1.15 WELL ACCEPTANCE CRITERIA

- A. After testing activities are completed, the Contractor shall restore the injection well back to the condition it was in prior to the initiation of testing.
- B. The Owner may withhold part of payment to the Contractor if section 1.10.A above is not completed.

1.16 REMEDIAL WORK

- A. If remedial work or re-testing is required prior to final acceptance of the work to meet regulatory requirements and the specifications of the Contract Documents due to defective materials, accident, loss of equipment or equipment malfunction, or for any other cause directly attributable

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to the Contractor's actions, the Contractor shall bear the entire cost of the remediation or re-testing, including all additional materials, labor, and equipment required and any necessary additional Engineering costs. In the event of a problem, the Engineer shall be notified immediately, and the following shall apply:

1. The Contractor shall propose a method of correcting the problem, in writing, to the Owner. The Consultant and Owner shall review the method of corrective action and accept the plan in writing before work can proceed.
2. All work on the well must be in accordance with all applicable local, state and federal regulations.

1.17 STANDBY TIME

- A. The Engineer may order the Contractor to stop his operations so that extra work not included in the Contract Documents such as testing and additional data collection can be performed. The Engineer will advise the Contractor when he proposes to do this and will schedule the request, so it causes a minimum of delay. All extra work must be accepted by the City, in writing, in advance.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 PRECONSTRUCTION CONFERENCE

- A. After the Award of Contract and prior to the issuance of the "Notice to Proceed," a preconstruction conference will be held with the Contractor, the City, various utility companies and Regulatory Agencies and others who are interested in the Project, for the purpose of coordinating the work. The time and place of the meeting will be set by the Engineer.
- B. In some cases, the preconstruction conference may be held after the start work date stated in the written "Notice to Proceed." This may be due to difficulty with coordination of all parties concerned, or other similar reasons.
- C. Such delays in holding the preconstruction meeting will not relieve the Contractor of any responsibilities hereunder and will not be an acceptable reason for him to request additional work completion time beyond that provided since he can be obtaining permits, mobilizing his equipment and forces, ordering materials, performing minor work, or other work if approved by the Engineer, during the interim period.

3.02 SUBMITTALS BY CONTRACTOR

- A. General: All measurements for depth shall be referenced to existing pad surface at the well location, for which elevation above NGVD is available (see figure provided).
- B. References: The Contractor shall submit a list of names of five or more owners of equivalent wells tested by his firm and shall include on said list the owner's name and address, the casing diameters and depths, the well capacity and the location of each well.
- C. Resumes: For key personnel involved in this project, including, but not necessarily limited to persons in key positions in the project, such as the drilling superintendent, drilling shift

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supervisors (or drillers), and the safety officer, a resume will be required for submittal to the Engineer for review and approval prior to assignment of personnel to the project.

- D. Equipment List: The Contractor shall submit a list of the equipment proposed to be utilized on the project which shall include manufacturer's load capacities, horsepower, year of manufacture, and year of purchase by present owner. The equipment should include, but not be limited to:
1. Downhole television camera with side view options and pressure resistance capabilities to depths of 4,000 feet;
 2. Pressure recorders and pressurization equipment capable of pressurizing the well casings to pressures of 200 psi at land surface;
 3. 20-foot wire brush with bristles end to end casing scrubbers for 24-inch diameter wells;
 4. A geophysical logging truck with a downhole logging recording system with a cable and counter with capacities to 4,000 feet;
 5. Logging tools: including logging tools for gamma ray logging, collar locators, temperature logging, and internal flow logging;
 6. Electrical remote radioactive tracer release tools;
 7. Flow strippers for the cable gland at the wellhead;
 8. Diverter head;
 9. Temporary storage tanks, frac tanks (for settling of brushing back-flow material);
 10. Boom truck or crane;
 11. Packers suitable for 24-inch diameter casing inflation;
 12. Pumps;
 13. Hoses;
 14. Mixing tanks;
 15. Generators;
 16. Air compressors;
 17. Test grade pressure gauges and pressure recorders;
 18. Salt (to control free flow); and
 19. Holding tanks and transfer tanks (for the salt solutions).
 20. 131 Iodine shall be medical grade and shall be injected between 1 mCi/ml up to 3 mCi/ml on each RTS.

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- E. Specialty Tools: A specialty tool pertains to geophysical logging or other tool constructed by the Contractor for downhole use. The Contractor shall submit to the Engineer two reproducible copies of specialty tool designs prior to tool use. These designs should include diameter, length, material, number of nozzles, nozzle diameter, pipe diameter, pumping pressure, pumping rate (in gallons per minute), sensor location(s), sensitivity range, and date of last calibration. If calibration of a specialty tool is conducted just prior to use, a separate submittal that provides calibration information will be made following calibration of the tool.
- F. Subcontractors List: The Contractor shall submit a complete list of all proposed subcontractors to be used in the work. Where possible, the Contractor shall utilize the skills of a specialist service company, expert in the type of service for which they are employed. The name and the background of the company and the individuals providing the services shall be submitted to the Engineer for approval prior to beginning work. The Engineer reserves the right to reject any service company.
- G. Instrument Calibrations: The Contractor shall submit to the Engineer at least 72 hours before testing begins calibration data for each measuring instrument to be used in testing. The date of calibration shall be no more than 180 days old. The calibration records shall contain the following information:
1. Flow meter calibration sheet: Serial Number, Model Number, Gears, Test apparatus size, Meter reading and flow rate for at least three steps, Percent error for each step, tester's name and title.
 2. Pressure gauge calibration sheet: Serial Number, Model Number, Scale range, Meter reading and inches of mercury for at least three steps covering the entire range of the gauge, Percent error for each step, Tester's name and title.
- H. Video Television Survey: The Contractor shall submit to the City three field copies of the video television survey for the well on the day the well is surveyed, via USB flash drive after the completion of the survey.
- I. Geophysical Logs and Radioactive Tracer Survey: The Contractor shall submit to the Engineer two copies of each of geophysical log of the well on the same day the logs are run, and 10 report copies of the logs on completion of well testing and provide electronic copies of logs in ASCII format.
- J. Daily Log: The Contractor shall prepare and submit to the Engineer one reproducible copy of the daily log of site activities on the morning, the following workday for which the daily log was prepared. The daily log shall include the date, well name, weather conditions, tasks undertaken, the times of task beginnings and endings, a log of pay items completed, calculations, recorded test data, and work-related notes. The daily log shall be available for inspection at the site at all times.
- K. Waste Disposal Plan: The Contractor shall prepare and submit to the Engineer two copies of a plan to dispose of the fluids and wastes generated in the process of doing the Work. The waste disposal plan should include the methods for fluid collection, containment, and disposal, the settling out, separating, and disposal of waste materials, and should comply with all applicable federal, state, and local regulations for collection, transport, and disposal of waste products.

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- L. Health and Safety Plan: Two copies of the Contractor's Mechanical Integrity Testing Health and Safety Plan will be submitted to the Engineer and will include but not be limited to a description of the Health and Safety procedures relevant to Mechanical Integrity Test procedures and Material Safety Data Sheets for all chemicals and hazardous materials that will be used in the performance of the Work.
 - M. Accident Reports: One copy of the Contractor's accident report form should be submitted to the Engineer within 24 hours of the occurrence of any accident in connection with the work.
 - N. Records Required by Law: The Contractor shall maintain all records required by governmental agencies having jurisdiction and shall submit such records to them as may be required. Two copies of all such material shall be furnished to the Owner.
- 3.03 SEQUENCE OF WORK
- A. Due to the time-critical nature of the work of this Project, the activities required shall be performed in strict conformance with the sequence and schedule times specified below. Do not deviate from this sequence and schedule without written authorization from the Engineer.
 - B. Prior to mobilizing at the project site, the Contractor is required to have all employees and subcontractors that will work at the site complete a mandatory operations meeting. The meeting agenda will be prepared and provided by City staff. Coordinate with the Consultant upon award of Contract. The meeting will highlight the requirements placed on the Contractor to always coordinate all field activities that may impact any operational activities of the WWTP and or well field facilities.
 - C. Contractor to locate all exiting utilities including air lines for the surge system, capillary tubing for pressure transmitters, signal wiring and power conduits (460V) around concrete pads to avoid damaging such utilities. Contractor to provide pre-construction video documentation of existing equipment and instrumentation conditions at each well to documents existing conditions prior to commencing construction. Video must include close ups of transmitters and face plates as well as the existing road and concrete pad conditions prior to starting construction and or MIT activities
 - D. To avoid disruption to existing operations, provide coordination with other related projects, and/or minimize impacts on adjacent property owners, the Work will be constructed in the following sequence:
 - 1. Contractor shall verify with the City that the aboveground control valves at the injection wellhead and the subsurface control valves upstream of the force main segments are operational and can be closed. Contractor shall coordinate with the George T. Lohmeyer Wastewater Treatment Plant Operator for the closing of all necessary valves on the 30-inch diameter injection well and force main piping.
 - 2. Contractor shall perform the MIT and well brushing Work. During the MIT only one well can be taken out of service at a time.
 - 3. Contractor shall coordinate the flowmeter and pressure transmitter replacement work to minimize operational disruptions to the plant.

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4. Contractor shall replace the flowmeter as part of the reassembly of the injection wellhead after the casing pressure test performed as part of the MIT. In preparation for the flowmeter installation, Contractor shall prepare electrical service and signal cables for hookup prior to flowmeter installation.
 5. Contractor shall restore site and remove all excavated material and debris from the grasses and the work area and leave these surfaces equivalent or better than their original condition.
- E. A Mechanical Integrity Test (MIT) and well brushing shall be performed on each Injection Well. Prior to the MIT, each casing will be cleaned using a brush as stated in the MIT Plan provided in Appendix A. The MIT and brushing work will follow the sequence below:
1. Specific Injectivity Test (by City).
 2. Pumping of clear water into injection well in preparation for well video.
 3. Pre-brushing video survey.
 4. Use weighted fluid to balance artesian conditions in well so it does not flow at surface (kill well).
 5. Disassemble of wellhead and install flow diverter and piping to well pad backwash drainage.
 6. Clean the casing with a brushing tool.
 7. Air lift and back flow water from injection well to dispose of particulate material removed from wells casing. Flow or pump to clear. Discharge shall go to backwash discharge system.
 8. Kill well.
 9. Run in packer and assemble temporary well header.
 10. Pressure Test.
 11. Disassemble temporary well header, remove packer, and reassemble wellhead as required and restore to service.
 12. Post-brushing specific injectivity test by City.
 13. Post-brushing well video.
 14. Temperature and Gamma Logs.
 15. Radioactive Tracer Test.
 16. Rig down and begin Flowmeter replacement, hardware replacement (Nuts/bolts/gaskets, concrete collar), and painting of above ground piping.
 17. Painting of wellhead, fittings, piping, and appurtenances.

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Well Number	Event or Activity	Event or Activity	Event or Activity	PHASE 1 AND 2 TO BE COMPLETED BY:
IW-1	Phase 1: Brushing	Phase 2: Mechanical Integrity Testing	Phase 3: Hardware replacement (Flowmeter, pressure transmitter, nuts/bolts/gaskets), concrete collar repair, painting	9/9/2019
IW-2	Phase 1: Brushing	Phase 2: Mechanical Integrity Testing	Phase 3: Hardware replacement (Flowmeter, pressure transmitter, nuts/bolts/gaskets), concrete collar repair, painting	8/26/2019
IW-3	Phase 1: Brushing	Phase 2: Mechanical Integrity Testing	Phase 3: Hardware replacement (Flowmeter, pressure transmitter, nuts/bolts/gaskets), concrete collar repair, painting	8/14/2019
IW-4	Phase 1: Brushing	Phase 2: Mechanical Integrity Testing	Phase 3: Hardware replacement (Flowmeter, pressure transmitter, nuts/bolts/gaskets), concrete collar repair, painting	10/28/2019
IW-5	Phase 1: Brushing	Phase 2: Mechanical Integrity Testing	Phase 3: Hardware replacement (Flowmeter, pressure transmitter, nuts/bolts/gaskets), concrete collar repair, painting	9/18/2019

3.04 SITE CLEANUP

- A. The Contractor shall at all times during the execution of this Contract keep the work site free and clear of all rubbish and debris. As soon as the work is completed on each half, the accumulated rubbish or surplus materials shall be promptly removed. The Contractor shall also restore in an acceptable manner all property, both public and private, which has been displaced or damaged during the prosecution of the work and shall leave the site and vicinity unobstructed and in a neat and presentable condition.
- B. In the event of delay exceeding two days after written notice is given to the Contractor by the Engineer to remove such rubbish or materials or to restore displaced or damaged property, the Engineer may employ such labor and equipment as he may deem necessary for the purpose, and the cost of such work, together with the cost of supervision, shall be charged to the Contractor and shall be deducted from any monies due him. The Project shall not be considered as having been completed until all rubbish and surplus materials have been removed and disposed of properly.

END OF SECTION

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SECTION 012000
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 GENERAL

- A. Payment for all work completed under this Contract shall be made in accordance with the provisions of Article 7 of the Contract and Conditions on the basis of the specific provisions of this section of the Specifications.
- B. The Contractor shall receive and accept the compensation as provided in the Contract's Proposal, as full payment for furnishing all labor, materials, tools and equipment, for performing all operations necessary to complete the work under this Contract, and also in full payment for all loss or damages arising from the nature of the Work, or from the action of the elements or from unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the City.
- C. The cost breakdown (or schedule of values) referred to herein is defined in the Proposal pages and in this section of the Specifications. The cost breakdown (schedule of values) approved by the Engineer will be used as the basis for making progress payments and for determining the cost of extra work which is the same or similar (as determined by the Engineer) to that defined in the schedule of values.
- D. The prices stated in the Proposal include full compensation for overhead and profit, all costs and expenses for taxes, labor, equipment, furnishing and repairing small tools and ordinary equipment, mobilization, home office expenses and general supervision, materials, commissions, transportation charges and expenses, patent fees and royalties, bond, insurance, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the work as shown on the Contract Drawings and specified herein. In addition, the Contractor shall include the actual cost of social security taxes, unemployment insurance, worker's compensation, fringe benefits, inclusive of life and health insurance, union dues, pension, pension plans, vacations, and insurance and contractor's public liability and property damage insurance involved in the work based on the actual wages paid to such labor and all other general costs and profits, prorated to each Item.
- E. Unless otherwise specifically stated elsewhere herein, the Contractor shall include in the prices bid all materials, electrical supply, fuel, lubricants, temporary equipment, temporary wiring, temporary piping and fittings, pumps, gages, and all other items of whatever nature required to completely test, balance, and put into fully operational condition all equipment and/or systems supplied by either the City or the Contractor and installed as a part of this Project. Further, any test materials supplied by the Contractor shall be completely satisfactory to the City. Any decision as to whether a particular material is suitable for test purposes shall be at the sole discretion of the Engineer whose decision shall be final. Any material considered not suitable shall be immediately replaced by the Contractor with suitable material and no extra compensation will be allowed.
- F. It is the intent of the City to obtain a complete and working installation under this Contract, and any items of labor, equipment or materials which may reasonable be assumed as necessary to accomplish this end shall be supplied whether or not they are specifically shown on the Figures or stated herein.

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1.02 PROPOSAL ITEMS

- A. Item No. 1: for furnishing all materials, labor and equipment and suppressing the well differential back pressure in each of the Floridan Aquifer injection wells, as appropriate, as required for all phases of the mechanical integrity testing, complete, will be paid for at the aggregate sum price bid per each well completed. The price bid shall be full compensation for furnishing all materials, labor and equipment, necessary, and shall include, but not be limited to furnishing salt or other approved product; providing water-proof storage of the salt or other product; providing mixing and holding tanks, hoses, valves, pipe, fittings, pumps and other similar items; mixing the brine solution with effluent or potable water and pumping it into the well; suppressing the backpressure for all phases of the mechanical integrity testing as required; mixing and adding in additional brine solution if necessary; safeguarding against spillage of the brine solution and accidental restoration of well differential backpressure; cleaning up any spillage; disposing of the brine solution after completion of the mechanical integrity testing; complying with security restrictions; coordination with the Engineer; transportation and handling costs; replacing or restoring damaged fences, paving, utilities, structures, grass, concrete pad, trees, and similar items, to equal or better than original condition, and all other appurtenant and miscellaneous items and work necessary.
- B. Item No. 2: for furnishing all materials, labor and equipment and cleaning the interior casing of each of the Floridan Aquifer injection wells, as appropriate, for its entire length, complete, will be paid for at the aggregate sum price bid per each well satisfactorily cleaned. The price bid shall be full compensation for furnishing all materials, labor and equipment necessary, and shall include, but not be limited to, removing the well head and properly storing for re-installation; furnishing and installing new neoprene gaskets and flange joint materials; cleaning the well for the entire length of the casing; safeguarding against spillage of brine solution and accidental restoration of well differential backpressure; cleaning up any spillage; re-cleaning the well if necessary after the television survey if initial cleaning insufficient; all cost for re-televising the casing after the second cleaning; exercising care not to, lose any materials or equipment in the well; retrieval of any accidentally lost items in the well; complying with security restrictions; coordination with the Engineer; transportation and handling costs; replacing or restoring damaged utilities, structures, fences, paving, grass, trees and similar items to equal or better than original condition; and all other appurtenant and miscellaneous items and work necessary. The term "clean" as used herein shall mean the complete removal of any slime buildup and other foreign material on the inside of the casing to the satisfaction of the Engineer whose decision shall be final.
- C. Item No. 3: for furnishing all materials, labor and equipment and pressure test the interior of the injection well, for its entire length, including packer integrity test, moving the packer device for 2 times if required, and pressurizing the casing two times if required, will be paid for at the aggregate sum price bid per each well satisfactorily tested. The price bid shall be full compensation for furnishing all materials, labor and equipment necessary, and shall include, but not be limited to, placing equipment into position; installing packer into well and integrity testing it, using certified gauge and recorder; furnishing certified test reports (for both pre-work certification and postwork certification); replacing packer if it fails the test, and testing it (this shall be repeated as necessary until a packer is furnished that is acceptable and passes test); lowering packer near bottom of well casing as specified, and pressure testing the casing using certified gauge and recorder (if test is satisfactory, removing the packer from the well and re-installing the wellhead and connecting piping, including furnishing and installing all new gaskets. If the test is unsuccessful, reposition the packer higher and repeat the test. If the second test is unsuccessful, the City may order additional tests under Contingent Item No. 4 of the Proposal. If later radioactive tracer tests reveal that the well is sound, it will be presumed that the Contractor's

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packer was faulty, and all previous tests, shall be repeated at the Contractor's expense. Previous tests ordered under Item 4 shall also be at the Contractor's expense and will not be paid for); exercising extreme caution when pressurizing the packer and the casing to avoid damage to the well; if damage occurs to the well due to the Contractor's negligence, they shall be responsible for repairing the well at their expense to the satisfaction of the Engineer (this could possibly create a situation where the Contractor would have to furnish a new well to equal or better the existing one, and at their expense); exercising extreme caution not to lose the packer tools and other items into the well; if the packer, tools or other items are lost into the well, it (they) shall be retrieved by the Contractor; safeguarding against spillage of the brine solution and accidental restoration of well differential backpressure; cleaning up any spillage; furnishing the testing log and other data; obtaining and paying for any required permits for the entire project under this, and all other Items, unless otherwise stated to be furnished by the City; replacing or restoring any damaged utilities, structures, fences, paving, grass, trees, and similar items to equal or better than original condition; and all other appurtenant and miscellaneous items and work necessary.

- D. Contingent Item No. 4: for furnishing all materials, labor and equipment to reposition the packer device and re-pressurize the interior well casing, in addition to that covered in Item 3, if ordered by the Engineer, will be paid for at the unit price bid for each repositioning and retesting ordered. The price bid shall be full compensation for furnishing all labor, materials and equipment necessary, and shall include, all applicable provisions specified under Item 3. If it is confirmed by television survey or radioactive tracer testing that the packer is defective, the City will not be responsible for this payment Item. See Item 3.
- E. Item No. 5: for furnishing all materials, labor and equipment and performing a temperature log and radioactive tracer survey at the injection well, will be paid for at the aggregate sum price bid per each well satisfactorily surveyed. The price bid shall be full compensation for furnishing all labor, equipment and materials necessary, and shall include, but not be limited to, placing equipment and tools into position, lowering the tools into the well; taking the temperature log; taking background log; furnishing radioactive material as required; exercising proper storage and handling procedures for the radioactive material at all times for complete safety; performing the dynamic tests; furnishing the survey logs and other data required; safeguarding against spillage of the brine solution, if still in the well, and accidental restoration of well differential backpressure; cleaning up any spillage; exercising care not to lose any materials or equipment into the well; retrieval of any accidentally lost items in the well; replacing or restoring damaged utilities, structures, fences, paving, grass, trees and similar items to equal or better than original condition; complying with security restrictions; coordination with the Engineer; transportation and handling costs; and all other appurtenant and miscellaneous items and work necessary. If cracks, defects or other anomalies are encountered during the survey, the Engineer may order additional time (survey) under Contingent Item No. 6 of the Proposal.
- F. Contingent Item No. 6: for furnishing all materials, labor and equipment and performing additional radioactive survey or temperature log in addition to that covered in Item 5, if ordered by the City, will be paid for at the unit price bid for each hour ordered. The price bid shall be full compensation for furnishing all labor, materials and equipment necessary, and shall include, all applicable provisions of Item No. 5. This item will only be used by the City to continue radioactive survey or temperature logging work while the Contractor's equipment is still in the well and/or in place at the well.
- G. Item No. 7: for furnishing all materials, labor and equipment and performing a closed circuit television survey of the Floridan Aquifer injection well, as appropriate, including the interior casing for its full length and the open borehole to its full depth, will be paid for at the aggregate

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sum price bid per each well satisfactorily surveyed. The price bid shall be full compensation for furnishing all materials, labor and equipment necessary, and shall include, but not be limited to, placing television camera/lights into the well; furnishing an air conditioned viewing truck or van where the television monitor can be viewed by the Engineer simultaneously with the survey; recording the survey on videotape; surveying the well casing and borehole; furnishing DVD's or portable USB flash drives and logs required; safe guarding against spillage of the brine solution, if still in the well, and accidental restoration of well differential backpressure; cleaning up any spillage; exercising care not to lose any materials or equipment into the well; retrieval of any accidentally lost items in the well; complying with security restrictions; coordination with the Engineer; transportation and handling costs; replacing or restoring any damaged utilities, structures, fences, paving, grass, trees and similar items to equal or better than original condition; and all other appurtenant and miscellaneous items and work necessary. This Item will not be used to pay for re-televising necessary due to improper cleaning as described under Item 2 and such re- televising shall be included in the prices bid for Item 2.

- H. Contingent Item No. 8: for waiting time and standby time, not included in the other items, when ordered and approved by the City Manager or designee, will be paid for at the unit price bid, times the number of hours authorized by the City Manager or designee.
- I. Item No.9: for work under this section which shall include but not be limited to all materials, labor, tools, ladders, scaffolding, required for painting all pipes, fittings, valves, surge tanks, and other appurtenances for five deep injections wells, including all specified preparatory work required for painting surfaces as required by specification requirements.
- J. Item No. 10: for furnishing all labor, material, and equipment to repair the exterior concrete of the existing precast concrete cylinder pipe as necessary per the Figures.
- K. Item No. 11: for furnishing all labor, material, and equipment to replace the flowmeter, pressure indicating transmitters, and all appurtenant items as necessary per the Figures and Sections 011101, 099100, 406113, and 409140 of the Specifications.
- L. Item No.12: payment for mobilization and demobilization at the GTL WWTP well field located within the City of Fort Lauderdale at 1000 SE 21 Street, Fort Lauderdale, Florida. Mobilization includes providing/installing/removing project sign, required field coordination and project management, submittals, RFI's, insurance, site cleanup, sanitary facilities, bonds, video, labor associated with permit acquisition, staging area, testing, construction trailer and demobilization.

Note: This total must not exceed ten percent of the items 1-11 above. Take the sum of the items 1 through 11 and multiply it by 0.01 to calculate this total.

- M. Item No. 13: payment for permit fees will be based upon the actual permit fees required from the various agencies having jurisdiction for construction of the project, in accordance with the Contract Documents. The allowance amount shown on the bid schedule is an estimate of permit fees required for the project and is a cost pass through item and no mark-ups will be added to this item. The Contractor shall produce documentation upon request verifying actual cost. Only permit fees substantiated by the Contractor and approved by the City of Fort Lauderdale will be paid as part of this item.
- N. Item No. 14: This account is for all labor, materials, equipment and services necessary for modification or extra work required to complete the Project because of unforeseeable conditions,

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unforeseeable conflicts between existing elements of work and the proposed work; for minor changes required to resolve any unforeseeable conditions, Revised Regulations, Technological and Products Development, Operational Changes, Schedule Requirements, Program Interface, Emergencies and Other Miscellaneous Costs; and for adjustments to estimated quantities shown on the unit prices of the proposal to conform to actual quantities installed; and associated time related to this work only if ordered by the Engineer.

Payment to the Contractor under the Allowance Account Items will only be made for work ordered in writing by the City Manager or his designee. Any portion of these accounts remaining after all authorized payments have been made will be withheld from Contract payments and will remain with the City.

Note: Since Bid Item Nos. 4, 6, and 8. are Contingent Items, and because of the nature of the Allowance Permit Fee Reimbursement Bid Item 13 and the Allowance Unforeseen Conditions Bid Item 14, they may or may not be used in their entirety at the option of the City. Any overrun or underrun provisions contained within the Contract Documents shall not be applicable to these items. If one account has been depleted and funds are available in the other accounts, the City may under a Change Order approval authorize use some of the available funds to complete the Project.

1.03 COST BREAKDOWN/SCHEDULE OF VALUES

- A. The Contractor shall submit a detailed Cost Breakdown of the Proposal Form costs for the work. The Cost Breakdown shall be submitted along with the Baseline Construction Progress Schedule within forty (40) calendar days after Notice to Proceed. The Cost Breakdown shall be in accordance with General Conditions.
- B. The Contractor's Cost Breakdown (Schedule of Values) shall be broken down in accordance with the construction progress schedule, by major structures/portion of work, by Division of work (e.g. Technical Division or trade), by major pieces of equipment, Specification Sections, or other relevant criteria for this particular Project. The Contractor shall separate cost of labor and materials and installation (of equipment, as applicable) in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. For the various portions of the work:
 - 1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
 - 2. For items on which progress payment will be requested for stored materials, break down the value into:
 - a. The cost of the materials (delivered and unloaded, with taxes paid). Paid invoices are required for stored materials.
 - b. The total installed value.
 - 3. The sum of all values listed in the cost breakdown shall equal the Subtotal Contract Sum and Grand Total Base Bid.

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- D. Upon request of the Engineer, the Contractor shall support the values in the Cost Breakdown which will substantiate their corrections. The accepted Cost Breakdown or Schedule of Values shall be used only as the basis for the Contractor's periodic and final applications for payment.

1.04 PAYMENT

- A. General: Progress payments will be made monthly as specified in the Agreement.
- B. It is the intent of the City to obtain in the Bidder's Proposal, at the time of bid, a complete price for all work shown or reasonably inferred from the Contract Documents.

1.05 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
1. Loading, hauling, and disposing of rejected material.
 2. Quantities of material wasted or disposed of in a manner not called for under the 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 the City.
 6. Material remaining on hand after completion of Work.

1.06 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial Payment: Partial payments will be made in accordance with the General Conditions.
- B. Final Payment: Will be made only for materials incorporated in work; remaining materials, 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.

1.07 FINAL APPLICATION FOR PAYMENT

- A. Final payment shall be subject to the conditions and requirements included in the General Conditions and all others included in the Contract.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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SECTION 099100
PAINTING

PART 1 GENERAL

1.01 GENERAL

- A. The work under this section shall include all material, labor, tools, ladders, scaffolding, etc., required to complete the painting for aboveground steel surge tanks and aboveground pipe, fittings, and valves. All material shall be brought on the job in the original unopened containers bearing the manufacturers label and shall be mixed or thinned and applied strictly in accordance with the manufacturer's directions. Any material brought to the job in opened containers shall be rejected. The Contractor shall store materials in a location or locations where directed by the Engineer and such storage space shall be kept clean and neat and every precaution taken to prevent all danger of fire. Oily rags and papers shall not be left in the buildings overnight unless placed in covered metal cans.
- B. Aluminum surfaces and all small items of equipment with factory finish in good condition shall not be painted. Name and data plates on equipment shall not be painted over, under any circumstance.
- C. All work shall be carefully protected while painting is going on, using suitable cover cloths where necessary. Any work defaced or damaged by the painters shall be made good by the Contractor as directed by the Engineer. The Contractor shall be responsible for cleaning all accidentally spilled materials such as paint, varnish, grout and concrete from the structures and equipment, and shall leave the work in complete and perfect condition in every detail.
- D. The Contractor shall assure that the surfaces are in proper condition to receive paint and shall guarantee paint against peeling and discoloration, due to faulty application or workmanship, in accordance with the terms of the Performance and Payment Bond.
- E. Wherever a "Specialty paint" or other painter's material is mentioned herein by Trade name of by manufacturer's name for a specific location, material, surface, or service condition, it is mentioned as a standard of comparison only and it is not intended that products by other manufacturers for like purposes may not be used if approved by the Engineer. Where any surface is acid etched, it shall be water-flushed and left until perfectly dry before paint is applied.
- F. The Contractor shall submit in quintuplicate to the Engineer for approval, a schedule of proposed paints to use for the various locations and purposes, at least 60 days before the anticipated data of use. This schedule shall indicate the type of paint, the manufacturer's name and the manufacturer's stock number and trade name of the product. No paint material shall be purchased until approval of such list has been made by the Engineer. The Contractor shall also submit in quintuplicate the manufacturer's recommended methods of application of the various types and kinds of paints and enamels.
- G. Finish colors and tints shall be as selected by the Engineer to conform to the color scheme of the Site. The Contractor shall tint each coat differently to assist the Engineer in checking work progress and to help in the elimination of "Holidays."

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PART 2 PRODUCTS

2.01 See Coating Schedule in Attachment A.

PART 3 EXECUTION

3.01 GENERAL

- A. All painting shall be done in first-class workmanlike manner. Surface preparation and special coating shall be performed only by crews experience in this work and approved by the Engineer. No painting shall be performed upon damp or frosty surfaces, or in wet, foggy or freezing weather. No material painted inside shall be carried outside in wet or freezing weather until it is thoroughly dry. Any painting found defective shall be removed and repainted.
- B. All surfaces shall be thoroughly brushed and cleaned before being painted and shall be perfectly clean and dry where paint is applied. All paint should be applied only via brush or roller, no spray painting is allowed. In the case of iron, steel, and metal work generally, all abrasions in the priming coat shall be carefully wire brushed and sandpapered smooth, removing all scales, ridges, or paint skin, and the surfaces shall then be painted the required number of coats herein specified.
- C. Where material or equipment is shop primed, all bad spots shall be cleaned and touched up with the recommended primer before the finish coats are applied.
- D. Before iron or steel is painted, all voids, open or hollow places and irregularities shall be filled with a mixture suitable for the material and purpose. Paints shall be evenly spread and well brushed out so that there shall be no drops, runs or sagging of materials.
- E. Drop cloths and masking where appropriate shall be used where necessary to prevent paint or other material from defacing the structures or equipment in place, and upon completion of the work, all paint spots shall be removed from all surfaces and all faceplates and nameplates verified to be unpainted.

3.02 PREPARATION

- A. All surfaces to be painted shall be prepared in accordance with best practice with particular attention to the following:
 - 1. Ferrous Metals: Remove all rust and loose scale with wire brush and wipe clean. Wash metal surfaces with mineral spirits to remove grease, oil and dirt.
 - 2. Galvanized Work: All galvanized surfaces shall be treated with a metal passivator prior to painting.
 - 3. The Contractor shall furnish the Engineer a plate, purchased from the Steel Structures Painting Council, representing the No. 6 blast cleaning to be used as a field guide. Under no circumstances shall blasted surfaces be permitted to rust, or condensation to form, prior to coating. Preferably, no more than 8 hours shall elapse between cleaning and coating.
 - 4. Testing Equipment: Furnish for use on the Project for paint inspection, wet and dry film thickness gauges. Paint manufacturers representative shall verify all required DFT.

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3.03 COATING SCHEDULE

- A. See Attachment A.

END OF SECTION
(Attachment A follows)

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ATTACHMENT A COATING SCHEDULE

Area	Surface Preparation	Paint Manufacturer	
		Carboline	Amercoat
Ferrous Metal (Surge Tanks)	SSPC-6 Commercial Blast Cleaning	1st Coat: Carboline Carbozinc 859 Int Coat: Carboguard 890 Finish Coat: Carbothane 133 Min Total DFT: 10 mils	1st Coat: Amercoat 68 HS 2nd Coat: Amerlock 2/400 3rd Coat: Amercoat 450HSG Min Total DFT: 10 mils
Ductile Iron Piping System (Above Grade)	SSPC-6 Commercial Blast Cleaning	1st Coat: Carboguard 890 Int Coat: Carboguard 890 Finish Coat: Carbothane 133 HB Min Total DFT: 12.0 mils	1st Coat: Amerlock 2/400 2nd Coat: Amerlock 2/400 3rd Coat: Amercoat 450HSG Min Total DFT: 12.0 mils
Aluminum surfaces in contact with steel	Metal must be clean, dry and free from rust, oil, dust, or other foreign, material.	Prime: 1 coat Finish: 2 coats Bitumastic 300M	Prime: None Finish: 2 coats No. 78.
Galvanized Metal.	Per paint manufacturer's recommendation	Prime: 1 coat primer Finish: 2 coats Glamortex Enamel	Prime: 1 coat No. 86 Finish: 2 coats No. 52

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SECTION 332113.05
MECHANICAL INTEGRITY TESTING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The mechanical integrity testing under this Contract shall be accomplished using the methods and general sequence described under Section 011101 and herein; however, the Contractor shall submit a more detailed sequence to the City for approval before the beginning of the work. The Contractor shall use extreme caution to prevent any loss of equipment, tools or other items into the wells and shall be fully responsible for retrieving any such items immediately, at no expense to the City. All pressure tests must be conducted in the presence of the City or authorized representative.
- B. The wells to be tested are Injection Wells IW-1 through IW-5 at the G.T. Lohmeyer Wastewater Treatment Plant Deep Injection Wells site.
- C. The Injection Wells have a 24-inch outside diameter (OD), 0.500-inch wall thickness injection casing set to total depths of 2,800 to 2,820 feet below land surface (bls) and were constructed with a nominal 22-inch diameter open borehole extending from the bottom of the casing to approximately 3,305 to 4,010 feet bls.

1.02 PURPOSE

- A. The purpose of the Mechanical Integrity Testing (MIT) shall be to demonstrate that the injection well has adequate mechanical integrity (MI) in conformance with the requirements of Chapter 62-528, F.A.C. Mechanical integrity shall be established as follows:
 - 1. Confirm integrity of casing (i.e., internal mechanical integrity)
 - 2. Confirm integrity of cement seal (i.e., external mechanical integrity)
- B. The Contractor shall perform internal and external mechanical integrity tests on the casings of five deep injection wells and perform all appurtenant work in accordance with the above Contract Documents, the MIT Plan, and applicable rules and regulations.

1.03 NOTIFICATIONS

- A. The Contractor shall notify the Engineer a minimum of 72 hours prior to beginning the pressure test, geophysical logging, and the radioactive tracer survey activities at each injection well so that the City and regulatory agency staff can be properly notified.

1.04 EQUIPMENT REQUIREMENTS

- A. General: The Contractor will provide all equipment associated with performing Radioactive Tracer Survey (RTS) testing, including logging tools, stripper/stand pipe to control flow, certified flow meter, pumps, and hoses.
- B. Wellhead Assembly: The stripper head assembly used during the video survey, Geophysical logging, and the radioactive survey shall be bolted to the wellhead above the 6-inch gate valve.

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The stripper head assembly used must be of sufficient length to house the longest of the wire line tools used for the testing between the gate valve and the pack-off mounted at the top of the assembly. The pack-off must be adjusted so that the tools can be moved freely up and down the well with minimal leakage from the well. The assembly shall include a 4-inch valve and tee, which will be used to inject potable water during the surveys. The assembly shall be fitted with a pressure gauge for use during the tests.

- C. Wellhead Hardware: The wellhead hardware shall be replaced with new 316 stainless steel nuts and bolts and new gaskets when the wellhead is reassembled after testing. The Contractor shall ensure that the new gaskets make contact and seal flanges between contact of nuts and bolts. Pipe flange should be painted before reassembly.
 - D. Water Line: The Contractor shall provide a potable water supply line for use during the video surveys. This line shall be connected to the existing 4-inch valve on the Contractor's stripper head. It shall be equipped with a reduced pressure zone (RPZ) backflow prevention device to prevent the backflow of effluent into the water supply source. It shall also be equipped with a continuous recording digital flow meter and totalizer capable of measuring flows accurately in the range of 0 to 250 gpm.
 - E. Packer: The Contractor will provide and install the packer assembly to utilize in the casing pressure test, and all related packer equipment, including but not limited to drop pipe, hoses, pressurizing equipment, and certified pressure gages for both the pressurizing equipment and the casing header. The packer shall be a Baker Single Set Production Injection Packer Model 300-01, a TAMJ Packer, or approved equal. The packer shall be a diameter appropriate for the size of well casing to be pressure tested. The packer shall seal tightly against the casing walls to effectively isolate the well casing from the open hole below the casing. It will be inflated to a maximum of 400 psi or at a pressure such that the well casing is not damaged, and an effective hydraulic seal is obtained or otherwise approved by the Engineer. The Engineer will be the sole judge as to the effectiveness of the packer element isolation of the well casing.
 - F. Pressure Gauges and Recorders: The pressure gauges and recorders used for the casing pressure tests shall be properly marked and identified and shall be properly stored and handled at all times to avoid damage. Five copies of the certified recalibrations shall also be furnished to the Engineer. Pressure gauges used for the casing pressure tests shall have been calibrated within the past 180 days and the Contractor shall submit a certification of the pressure gauge calibration prior to the performance of the first pressure test. Calibrations shall be done by the Contractor as required during the work of this project.
- 1.05 MATERIAL REQUIREMENTS
- A. The Contractor shall kill the well using a dense food-grade salt solution. No barite or mud-based additives shall be used in the well.

PART 2 PRODUCTS (NOT USED)

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PART 3 EXECUTION

3.01 GUIDELINES

- A. The Contractor shall set up all equipment required to prepare for suppressing the density differential pressure, video surveys, cleaning, performing the pressure test and the radioactive tracer surveys. Only one well can be taken out of service at a time.
- B. The Contractor will notify the City when ready for a Specific Injectivity Test. The City will perform a pre-brushing Specific Injectivity Test on each well prior to any MIT activities on the well.
- C. A pre-brushing and post-brushing video survey shall be performed to document the conditions of the casing and borehole prior to and after brushing. The contractor shall pump sufficient clear water into the injection well prior to all video surveys.
- D. The Contractor shall inject sufficient salt solution into the well to balance the differential pressure and disassemble the wellhead as necessary for the casing interior cleaning and pressure testing. The brine solution shall remain in the well during the cleaning and pressure testing steps, after which time it shall be transferred to another well if clean enough for reuse or shall otherwise be disposed of by the Contractor. Under no circumstances shall brine solution be spilled or disposed of on the ground surface.
- E. The Contractor shall clean each casing interior using a minimum 20-foot long casing brush. Two round trip passes shall be performed from the top of the casing to the casing bottom and back to the surface.
- F. Pressure testing will be conducted to determine internal mechanical integrity. The final casing strings will be pressured to 200 psi and monitored using certified pressure gages and recording pressure transducers for a minimum of one hour for any change in pressure of plus or minus five percent.
- G. The Contractor will notify the City when ready for the post-brushing Specific Injectivity Test. The City will perform a post-brushing Specific Injectivity Test followed by the post brushing video survey.
- H. An RTS and temperature log will be performed to determine external mechanical integrity. The RTS tool will be configured with one gamma ray detector above and two detectors below the tracer ejector port. A casing collar locator (CCL) shall be positioned below the tool to precisely locate the bottom of the casing.
- I. The Contractor shall notify the Engineer at least seventy-two hours prior to the initiation of all testing activities unless otherwise indicated. The Engineer will contact FDEP to coordinate testing schedule. The schedule of testing will be dependent upon the availability of FDEP staff to observe testing activities. All pressure tests must be conducted in the presence of the City or authorized representative.
- J. All testing procedures and results shall meet the requirements of Chapter 62-528 F.A.C and the approved MIT plan.

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3.02 CASING INTERIOR BRUSHING

- A. The Contractor shall clean the casing with a brushing tool prior to proceeding with the standard MIT test procedures. The entire length of casing shall be cleaned. If the later Video survey indicates insufficient cleaning, the well shall be re-cleaned by the Contractor, at their expense, to the satisfaction of the Engineer. If the Video survey must be repeated because of insufficient cleaning, in the opinion of the Engineer, it shall also be at the Contractor's expense
- B. The casing brushing tool shall be a sufficient diameter to contact the interior casing wall. The tool shall be a minimum of 20-feet long and have steel bristles end to end. A typical casing brush configuration is provided in Figure No. 13.
- C. The tool must have the ability to be rotated 360 degrees and lowered at a maximum rate of ten feet per minute. Two round trip passes shall be performed from the top of the casing to the casing bottom and back to surface.
- D. The Contractor shall provide and install a flow diverter and piping to well pad backwash discharge system.
- E. The Contractor shall submit drawings of the proposed tool to the Engineer for review prior to utilization.
- F. After brushing, the contractor shall airlift and backflow water from injection well to dispose of particulate material removed from well casing. Flow or pump to clear discharge to backwash discharge system at each injection well pad.
- G. The City shall conduct a post-brushing Specific Injectivity test. The Contractor shall include time for this in the costs for the brushing. It is not considered standby time.

3.03 VIDEO TELEVISION SURVEY

- A. General: Pre-cleaning and post-cleaning video surveys shall be performed by the Contractor to assess the condition of each well's interior prior to and after well cleaning. Video surveys shall be conducted by a qualified service company using equipment capable of surveying and recording the required depth and visual. The Contractor may use their own equipment providing it is capable of surveying as required and the Contractor shall furnish proof of the capability of the equipment. The Video camera shall be centralized within the borehole and have side view (sufficient to view 90 degrees from down hole view) and color capability.
- B. The Contractor shall insure that the well and borehole fluid is of sufficient clarity as determined by the Engineer to allow a video survey to be conducted. The Contractor shall provide and install temporary piping, pumps, etc. capable of adequately stressing the borehole. The Contractor shall pump into or out of the well a quantity of clear water not less than three volumes of the entire well and borehole. If after pumping three volumes of potable water into the well, the water quality does not permit a clear picture of the inside of the well, the Contractor may be required to perform additional pumping services to assure a good survey as specified above.
- C. While performing operations related to the Video survey, the well may be under artesian pressure and may flow. The Contractor shall provide and use a stripper head assembly and any other equipment necessary to keep any flow under control at all times.

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- D. During the video survey, the Contractor shall stop the camera's progress as instructed by the Engineer at depths where there may be potential flaws in the casing or other features to allow for thorough examination at those locations.
- E. Costs for pumping clear water into or out of the borehole to achieve the desired level of clarity for the Video surveys and tapes (including time spent waiting for the Video equipment) and for rig and crew labor for all activities associated with preparing, performing and dismantling equipment related to the Video survey shall be included with the Contractor's testing costs for the injection well.
- F. The Contractor shall repeat the Video survey at their own cost if water quality is inadequate or the borehole is not properly conditioned, as evaluated by the Engineer.

3.04 PACKER ASSEMBLY

- A. The packer assembly shall be pressure tested at the surface prior to insertion into the casing.
- B. The well shall be killed with salt.
- C. The packer shall be installed in the well using drill pipe or tubing to a depth within twenty feet of the base of the casing to be tested.
- D. The packer will be inflated to a pressure not exceeding 400 psi or at a pressure such that the well casing is not damaged, and an effective hydraulic seal is obtained.

3.05 PRESSURE TEST SET-UP

- A. Furnish and install wellheader sufficient to seal the drill pipe and wellhead prior to running the pressure test.
- B. Furnish a pressure gauge calibrated in one psi increments for the pressure test. The gauge supplied shall have a calibrated rating from 0.0 to 300 psi with an accuracy of plus or minus ½ percent. Furnish certification that the pressure gauge has been calibrated within sixty days prior to testing. The pressure gauge shall be acceptable to the Engineering Consultant prior to its use.
- C. Pressures in the well will be observed and recorded with certified, calibrated pressure gages and recording pressure transducers. If the pressure change exceeds five percent (plus or minus), the location of the leak shall be determined. If the leak occurs from the packer, then the packer will be reset (using the same procedure as above) until the pressure test can be successfully completed.

3.06 PRESSURE TEST

- A. Install and inflate packer within twenty feet from the base of the injection casing.
- B. Install wellhead assembly and pressure gauges on well.
- C. Fill casing with water, pressure casing, and bleed off any air remaining in the casing.
- D. Run preliminary test, which shall be observed by the Engineer at their option. Notify the Engineer of the anticipated start time of the final packer test. Engineer will coordinate testing schedule with the FDEP.

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- E. With FDEP and Engineer on-site to witness, run final pressure test at a minimum of 200 psi for a one-hour duration and monitor wellhead pressure within the casing. If less than a five percent (plus or minus) change occurs over the one-hour testing period, the well has successfully demonstrated internal mechanical integrity. The packer will then be deflated and removed from the well.
- F. If the test fails, the Contractor shall move the packer upwards for approximately 10 feet and re-start the pressure test. If the test still fails, additional repositioning of the packer within 100-feet of the bottom of casing and repeating the test shall be as ordered by the City. If the test still fails, and subsequent Radioactive surveys indicate no casing failure, it will be presumed that the Contractor's packer did not create a positive seal, and the Contractor shall be required to repeat the pressure test at his expense. No payments will be made to the Contractor if it is subsequently determined that the test failure was caused by the seating of the packer. If the packer fails during packer operation verification, it will be concluded that the packer was faulty during any previous test that did not demonstrate casing integrity. The Contractor shall repeat this test at his expense. A faulty packer shall be replaced with one that will meet the test. The Engineer is aware that packers have limited inflation cycles and will attempt to minimize the verification of packer operation. However, any integrity failure for which the packer operation cannot be eliminated must be repeated at the Contractor's cost. It is anticipated that each new packer will be tested at the wellhead to verify its capacity to seat and deflate.
- G. Pressures in the well will be observed and recorded with certified, calibrated pressure gages and recording pressure transducers. If the pressure change exceeds five percent (plus or minus), the location of the leak shall be determined. If the leak occurs from the packer, then the packer will be reset (using the same procedure as above) until the pressure test can be successfully completed.
- H. Accurately measure the volume of bleed-off water as casing pressure is released after test. Measured water released from the casing must NOT be discharged to the ground.

3.07 TEMPERATURE LOG

- A. The well will be left undisturbed for a minimum of 12 hours prior to running a differential and gradient temperature log from land surface to the bottom of the injection zone.
- B. Calibrate geophysical tools within one week of testing.

3.08 RADIOACTIVE TRACER SURVEY (RTS)

- A. General Requirements:
 - 1. Prior to conducting the RTS, and radiation officer will perform a background Geiger counter survey of site.
 - 2. Calibrate geophysical tools within one week of testing.
 - 3. The tracer (Medical Grade Iodine 131) must be obtained within 72 hrs. of the initiation of the RTS. A certification or receipt for the Iodine 131 should be present during the RTS and the Contractor shall provide copies to the Engineer and FDEP representative onsite.
 - 4. All flow and pressure gauges must be calibrated within 180 days of use.

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5. Gamma detectors shall be field calibrated by the geophysical logging crew, using a standard, after the tool has been loaded with tracer and prior to insertion into the well, if requested by the Engineer. Documentation of the radioactive tracer injection time must be provided, and the tracer injection time must be calibrated to +/- 1 millisecond. No time lag between injection and monitoring is permitted.
 6. A static RTS and additional dynamic tests may be conducted if requested by the FDEP.
- B. Provide required notification to Engineer prior to initiating RTS. The Engineer shall witness the RTS. Engineer will coordinate testing schedule with FDEP and will provide them with the option to witness the test.
- C. A background gamma ray log with the casing collar locator (CCL) shall be run from the top of the injection casing to the bottom of the injection zone. The bottom of the injection casing should be accurately located with the CCL by repeat passes. The background gamma ray log should be printed on all RTS logs run up or down the injection well during testing.
- D. Dynamic Tests 1 and 2:
1. The tool shall be positioned with the ejector five feet above the bottom of the injection casing and a low-flow (no to exceed 5 ft/min with a minimum of 3 ft/min) rate of injection is established in the well. The water for this low flow rate shall be from the nearby potable line and a calibrated flowmeter shall be installed in a convenient location.
 2. A radioactive tracer slug shall be released (1 to 3 millicuries), and the detectors will be kept stationary and gamma ray detectors monitored in time-drive mode for 60 minutes.
 3. The tool will then be raised to 200 feet above the bottom of the injection casing to record the dispersion of the radioactive tracer. If upward movement of the tracer is detected during the monitoring period, the operator shall immediately log out of position to a new position approximately 20 feet above the highest point tracer is detected and resume time drive monitoring. If the logging tool is to be moved upwards in the event of possible detection of tracer by the upper detector, the tool should not be moved prior to the time period required for the tracer to travel from the middle detector to the lower detector (theoretically 2 minutes for a 5 foot/minute flow rate).
 4. Flushing between the radioactive tracer survey tests and logging after the flushing is only mandatory if there is an adverse casing stain. If staining is detected on the casing, the well will then be flushed with a minimum volume of approximately 65,000 gallons, and the gamma ray log of the interval logged in the previous step is run again. It is assumed here that open hole water can be pulled for this procedure conducted during the MIT.
 5. Run an additional second low-flow dynamic test for 30 minutes, in the same manner repeating the steps described above.
 6. The well will be flushed as described above and the contractor will lower the tool to the top of the injection zone (or a minimum of 100 feet below the base of the casing into a cavernous zone) and release the remaining Iodine 131.
 7. Conduct a final gamma ray logging pass (the same interval as logged in the background gamma ray log).

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8. Additional RTS testing shall be performed should logging results suggest additional testing is necessary. The need for additional tests will be determined in the field and will be based on logging response and field discussions with an FDEP representative witnessing the RTS.

END OF SECTION

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SECTION 406113
INSTRUMENTATION AND CONTROLS –
GENERAL PROVISIONS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall procure the services of a Process Control System Supplier (PCSS) to furnish and install all materials, equipment, labor and services, required to achieve a fully integrated and operational system as specified herein, in the Specification Sections listed below, and in related drawings, except for those services and materials specifically noted.
1. Furnished, install and configure five (5) Magnetic Flowmeters which will replace the existing Ultrasonic Flowmeters at G.T. Lohmeyer Injection Facility for the injection's wells IW-1, IW-2, IW-3, IW-4 and IW-5. The furnished flowmeter shall be matching the size of the existing flowmeter and shall be installed in conformity of the equipment manufacturer recommendations.
 2. Furnished, install and configure five (5) pressure sensing transmitters which will replace the existing injection well discharge pressure transducers at G.T. Lohmeyer Injection Facility for the injection's wells IW-1, IW-2, IW-3, IW-4 and IW-5. The furnished pressure transmitter shall match pressure sensing range of the existing pressure transmitters and shall be installed in conformity of the equipment manufacturer recommendations.
 3. G.T. Lohmeyer Injection Facility PLC I/O points for the flowmeters shall be modified to accommodate flowmeters replacement and adequate scaling of the new flow signal scaling for proper visualization at the plant SCADA.
 4. In event that a new I/O card will be necessary to be added at the existing PLC to incorporate all signals of the new flowmeter, the IO cards which will be furnished shall match the existing IO cards of the G.T. Lohmeyer Injection Facility PLC.
 5. Provide all programming, configuration, and related services required to achieve a fully integrated system. All equipment shall be controlled in full conformity with the contract drawings, specifications, engineering data and instructions; and maintain the same functionality and operation of the system.
 6. The existing flowmeter wiring for power and instrument signal shall be used for interconnection of the new Magnetic Flowmeter.
 7. The existing pressure transmitters wiring for power and instrument signal shall be used for interconnection of the new pressure sensing transmitters.
- B. Auxiliary and accessory devices necessary for system operation or performance, such as transducers, relays, signal amplifiers, intrinsic safety barriers, signal isolators, software, and drivers to interface with existing equipment or equipment provided by others under other Sections of these specifications, shall be included.
- C. All equipment and installations shall satisfy applicable Federal, State and local codes.

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- D. Use the equipment, instrument, and loop numbering scheme currently used by the Owner in the development of the submittals. Do not deviate from or modify the numbering scheme without the Owner's approval.
- E. Provide Application Engineering Services as described below for the following:
 - 1. G.T. Lohmeyer Injection Facility PLC Control Panel.

1.02 SUBMITTALS

A. General Requirements:

- 1. Shop drawings shall demonstrate that the equipment and services to be furnished comply with the provisions of these specifications and shall provide a complete record of the equipment as manufactured and delivered.
- 2. Submittals shall be complete; giving equipment specifications, details of connections, wiring, ranges, installation requirements, and specific dimensions. Submittals consisting of only general sales literature shall not be acceptable.
- 3. The submittal drawings' title block shall include, as a minimum, the PICS contractor's registered business name and address, Owner and project name, drawing name, revision level, and personnel responsible for the content of the drawing.
- 4. Substitutions on functions or type of equipment specified shall not be acceptable unless specifically noted.
- 5. Separate submittals shall be made for each submittal listed below.

B. Project Plan, Deviation List, and Schedule Submittal:

- 1. Submit, within 30 calendar days after Notice to Proceed, a Project plan. The Project Plan shall be submitted and approved before further submittals shall be accepted. The Project Plan shall, at a minimum, contain the following:
 - a. Overview of the proposed control system describing the understanding of the project work, a preliminary system architecture drawing, interfaces to other systems, schedule, startup, and coordination. A discussion of startup, replacement of existing equipment with new, switchover (Maintaining Plant Operations during system transition), approach to testing and training, and other tasks as required by these specifications shall be included as applicable.
 - b. Review and approval of software and hardware systems as part of this Project Plan stage shall not relieve the PCSS of meeting all the functional and performance requirements of the system as specified herein. Substitution of manufacturer or model of these systems after the submittal is approved is not allowed without Owner approval.
 - c. Project personnel and organization including the PCSS project manager, project engineer, and lead project technicians. Include resumes of each these individuals and specify in writing their commitment to this project. These do not need to be submitted again if already submitted in the Qualification submittal.

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- d. Sample formats of the shop drawings to be submitted and in conformance with the requirements of the Specifications. At a minimum include samples of panel modification drawings, loop, and I/O wiring diagrams.
 2. Exceptions to the Specifications shall be clearly defined in a Deviation List. The Deviation List shall consist of a paragraph by paragraph review of the Specifications indicating acceptance or any proposed deviations, the reason for exception, the exact nature of the exception and the proposed substitution so that an evaluation may be made by the Owner. If no exceptions are taken to the specifications or drawings the PCSS shall make a statement as such. If there is no statement by the PCSS, then it is acknowledged that no exceptions are taken.
 3. Project schedule shall be prepared in Gantt chart format clearly showing task linkages for all tasks and identifying critical path elements. PCSS schedule must be based on the General Contractor schedule and must meet all field installation, testing, and start-up milestones in that schedule. The project schedule shall illustrate I&C related major project milestones including the following:
 - a. Schedule for all subsequent project submittals. Include the time required for Contractor submittal preparation, Owner's review time, and a minimum of two complete review cycles.
 - b. Proposed dates for all project coordination meetings.
 - c. Hardware purchasing, fabrication, and assembly (following approval of related submittals).
 - d. Shipment of instrument and control system equipment.
 - e. Installation of instrument and control system equipment.
 - f. Testing: Schedule for all testing.
 - g. Schedule for system cutover, startup, and/or going on-line for each major system.
 - h. Schedule for all training including submittal and approval of O&M manuals, and site training.
- C. Input/Output (I/O) List Submittal:
1. Submit, within 45 days after Notice to Proceed, a complete system Input/Output (I/O) address list for equipment connected to the control system under this Contract.
 2. I/O list shall be based on requirements in the Specifications.
 3. The I/O list shall be submitted in both a Microsoft Excel readable electronic file format and an 8-1/2 inch by 11-inch hard copy.
 4. The I/O list shall reflect all active and spare I/O points. Add points to accommodate spare I/O as required in the specifications.
 5. The I/O list shall be arranged such that each control panel has a dedicated worksheet. At a minimum, I/O worksheet shall include the following information:
 - a. TAG NUMBER(S): The identifier assigned to a device that performs a function in the control system. As part of this information, the loop number of the tag shall be broken out to allow for sorting by loop.

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- b. DESCRIPTION: A description of the function of the device (text that includes signal source, control function, etc.) Include the text "Spare Points" for all I/O module points that are not connected to equipment.
 - c. PHYSICAL LOCATION: The Control Panel designation of where the I/O point is wired to.
 - d. Physical POINT ADDRESS: Rack, Slot, and Point (or Channel) assignment for each I/O point.
 - e. I/O TYPE: use DO - Discrete Output, DI - Discrete Input, AO - Analog Output, AI - Analog Input, PI - Pulse Input, or PO – Pulse Output.
 - f. RANGE/STATE: The range in engineering units corresponding to an analog 4-20 mA signal, or, the state at which the value of the discrete points are "1."
 - g. ENGINEERING UNITS: The engineering units associated with the Analog I/O.
 - h. ALARM LIMITS: Include alarm limits based on the existing control sequence and functionality of the system.
 - i. P&ID – the P&ID or drawing where the I/O point appears on. Mark as "NA" (Not Applicable) if the I/O point is derived from a specification requirement and is not on the P&IDs.
6. The I/O list shall be sorted in order by:
- a. Physical location.
 - b. I/O Type.
 - c. Loop Number.
 - d. Device Tag.
7. Once the I/O list is approved, the PLC I/O addresses shall not be modified without approval by the Owner.

D. Hardware and Software Packages Submittal:

1. For each hardware and software packages furnished under this project, submit a cover page that lists, at a minimum, date, specification number, product name, manufacturer, model number, Location(s), and power required. Preferred format for the cover page is ISA-TR20.00.01-2001 (updated in 2004-2006), general data sheet; however, other formats will be acceptable provided they contain all required information.

E. Testing Submittals - Submit, in one submittal, the following testing related documents.

1. Status signoff forms:
 - a. Develop and submit project specific I/O Status and signoff forms to be used during field testing to organize and track each loop's inspection, adjustment, calibration, configuration, and testing status and sign off. Include sign-off forms for each testing phase showing all loops.
 - 1) Separate forms for field testing can be used, or they can be combined, at the discretion of the PCSS.
 - 2) Submit testing forms prior to start of testing.

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2. Testing Procedures:

- a. Submit detailed procedures proposed to be followed for each of the tests specified herein. The test procedures shall serve as the basis for the execution of the required tests to demonstrate that the system meets and functions as specified herein.
- b. The documents shall be structured in an orderly and easy to follow manner to facilitate an efficient and comprehensive test.
- c. The test procedures shall indicate all pre-testing setup requirements, all required test equipment, and simulation techniques to be used.
- d. The test procedures shall be structured in a cause and effect manner where the inputs are indicated, and the outputs are recorded.
- e. The test procedures shall include the demonstration and validation under normal operating conditions and under various failure scenarios as specified in the contract documents.
- f. Testing may not start until all Testing Submittals have been approved.

3. Test Documentation

- a. Upon completion of each required test, document the test by submitting a copy of the signed off Testing Status forms. Testing shall not be considered complete until the signed-off forms have been submitted and approved. Submittal of other test documentation, including "highlighted" wiring diagrams with field technician notes, are not acceptable substitutes for the formal test documentation.

F. Operations and Maintenance (O&M) Manuals:

1. Furnish O&M manuals as specified herein.
2. The operations and maintenance manuals shall, at a minimum, contain the following information:
 - a. Table of Contents:
 - 1) A Table of Contents shall be provided for the entire manual with the specific contents of each volume clearly listed. The complete Table of Contents shall appear in each volume.
 - b. Instrument and Equipment Lists:
 - 1) The following lists shall be developed in Microsoft Excel format and provided not only as a hardcopy in O&M but also electronically on a USB Flash Drive.
 - 2) An instrument list for all devices supplied including tag number, description, specification section and paragraph number, manufacturer, model number, serial number, range, span, location, manufacturer phone number, local supplier name, local supplier phone number, completion year replacement cost, and any other pertinent data.
 - 3) An equipment list for all non-instrument devices supplied listing description, specification section and paragraph number, manufacturer, model number, serial number, location, manufacturer phone number, local supplier name, local supplier phone number, completion year replacement cost, and any other pertinent data.

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c. Equipment Operations and Maintenance Information:

- 1) ISA-TR20.00.01-2001(updated in 2004-2006) data sheets shall be provided for all field instruments. For non-field instrumentation devices, provide a cover page for each device, piece of equipment, and OEM software that lists date, specification number, product name, manufacturer, model number, Location(s), and power required. Preferred format for the cover page is ISA-TR20.00.01-2001(updated in 2004-2006), general data sheet; however, other formats will be acceptable provided they contain all required information.
- 2) Vendor O&M documentation for each device, piece of equipment, or OEM software shall be either new documentation written specifically for this project; or modified standard vendor documentation. All standard vendor documentation furnished shall have all portions that apply clearly indicated with arrows or circles. All portions that do not apply shall be neatly lined out or crossed out. Groups of pages that do not apply at all to the specific model supplied shall be removed. Vendor O&M documentation shall include recommended replacement parts to be stocked.
- 3) Include the calibration forms developed as specified in Testing section of this document.

d. As-Built Drawings:

- 1) Complete as-built drawings, including all drawings and diagrams. These drawings shall include all termination points on all equipment the system is connected to, including terminal points of equipment not supplied by the PCSS.
- 2) As built documentation shall include information from submittals, as described in this Specification, updated to reflect the as-built system. Any errors in or modifications to the system resulting from the Factory and/or Functional Acceptance Tests shall be incorporated in this documentation.

e. Electronic O&M Information:

- 1) In addition to the hard copy of O&M data, provide an electronic version of all equipment manuals and data sheets, along with any software back-up of configuration files, on USB Flash Drive. Electronic documents shall be supplied in Adobe Acrobat format.
- 2) Provide electronic files for all custom-developed manuals including training manuals. Text shall be supplied in both Microsoft Office format and Adobe Acrobat format.
- 3) Provide electronic files for all drawings produced. Drawings shall be in AutoCAD ".dwg" format and in Adobe Acrobat format. Drawings shall be provided using the AutoCAD eTransmit feature to bind external references, pen/line styles, fonts, and the drawing file into individual zip files.
- 4) Each computer system hardware device shall be backed up onto USB Flash Drive after Substantial Completion and shall be turned over to the Owner.

1.03 COORDINATION MEETINGS

- A. Schedule the mandatory coordination meetings as described herein. The meetings shall be held at the Owner's designated location and shall include attendance by the Owner, the Consultant, the Contractor, the PCSS's Project Engineer, and the AESS Project Engineer, if applicable. Prepare

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and distribute an agenda for this meeting a minimum of one week before the scheduled meeting date. Meeting shall be scheduled a minimum of one week before the requested meeting date.

1. A project kickoff coordination meeting shall be held within two weeks after submitting the Project Plan. The purpose of the meeting shall be to discuss the PCSS's Project Plan, to summarize the PCSS's understanding of the project; discuss any proposed substitutions or alternatives; schedule testing and delivery deadline dates; provide a forum to coordinate hardware and software related issues; and request any additional information required from the Owner. The meeting will last up to one business day.
2. A submittal review coordination meeting shall be held after the Hardware and Loop Drawing Submittal package has been reviewed by the Owner and returned to the PCSS. The purpose of this meeting shall be to review comments made on the submittal package; to refine scheduled deadline dates; coordinate equipment installation activities; and provide a forum for any further required coordination between the PCSS and AECS. The meeting will last up to one business day.
3. Regular on-site meetings when the PCSS staff is at the facility site.

1.04 REFERENCE STANDARDS

- A. Publications are referred to in the text by basic designation only. Where a date is given for reference standards, that edition shall be used. Where no date is given for reference standards, the latest edition in effect at the time of bid opening shall apply.
- B. International Society of Automation (ISA):
 1. ISA S5.2, Binary Logic Diagrams for Process Operations.
 2. ISA S5.3, Graphic Symbols for Distributed Control/Shared Display Instrumentation Logic and Computer Systems.
 3. ISA S5.4, Instrument Loop Diagrams.
 4. ISA S20, Specification Forms for Process Measurement and Control Instruments, Primary Elements and Control Valves.
 5. ISA RP60.3, Human Engineering for Control Centers.
 6. ISA RP60.6, Nameplates, Labels, and Tags for Control Centers.
 7. ISA-99, Industrial Automation and Control Systems Security.
- C. National Electrical Manufacturers Association (NEMA).
- D. National Fire Protection Agency (NFPA):
 1. NFPA 70, National Electrical Code (NEC).
 2. NFPA 79, Industrial Control Equipment.
- E. Underwriters Laboratories, Inc. (UL):

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1. UL 508 - Industrial Control Equipment - for custom fabricated equipment.
2. A nationally recognized testing laboratory, as approved by the Authority having jurisdiction, may substitute for UL listing on commercial off the shelf products.

1.05 QUALITY ASSURANCE

- A. The Process Control System Supplier (PCSS) shall be regularly engaged in the design and the installation of instrumentation systems and their associated subsystems as they are applied to the municipal water and wastewater industry. For the purposes of this Specification Section, a PCSS shall be interpreted to mean an organization that complies with all of the following criteria:
1. Employs personnel on this project who have successfully completed ISA or manufacturers training courses on general process instrumentation and configuration and implementation of the specific programmable controllers, computers, and software proposed for this project. Key personnel shall hold ISA CCST Level 1 certification or have a minimum of 10 years of verifiable facility startup experience. Key personnel shall include, as a minimum, the lead field technician.
 2. Has successfully completed work of similar or greater complexity on at least three previous projects within the last five years. Successful completion shall be defined as a finished project completed on time, without any outstanding claims or litigation involving the PCSS. Potential references shall be for projects where the PCSS's contract was of similar size to this project.
 3. Has been actively engaged in the type of work specified in this Specification Section for a minimum of five years.
- B. The PCSS shall maintain a permanent, fully staffed and equipped service facility within 200 miles of the project site with full time employees capable of designing, fabricating, installing, calibrating, and testing the systems specified herein. At a minimum, the PCSS shall be capable of responding to on-site problems within 12 hours of notice. Provide an on-site response within 4 hours of notification starting at two months before scheduled startup to two months after startup completion.
- C. PCSS shall hold a valid UL-508 certification for their panel fabrication facility.
- D. Actual installation of the instrumentation system need not be performed by the PCSS's employees; however, the PCSS as a minimum shall be responsible for the technical supervision of the installation by providing on site supervision to the installers of the various components.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Shipping Precautions:
1. After completion of shop assembly, factory test and approval of all equipment, cabinets, panels and consoles shall be packed in protective crates and enclosed in heavy duty (5 mil) polyethylene envelopes or secured sheeting to provide protection from damage, dust and moisture. Dehumidifiers shall be placed inside the polyethylene coverings. The equipment shall then be skid-mounted for final transport. Lifting rings shall be provided for moving

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without removing protective covering. Boxed weights shall be shown on shipping tags together with instructions for unloading, transporting, storing and handling at the job site.

2. Manufacturer's special instructions for field handling, storage and installation required for protection, shall be securely attached to the packaging for each piece of equipment prior to shipment. The instructions shall be stored in resealable plastic bags or other means of protection.
3. If any apparatus has been damaged, such damage shall be replaced at no additional cost to the Owner.

1.07 WARRANTY

- A. Provide warranty per the Agreement, and as specified herein.

1.08 MAINTENANCE CONTRACT

1.09 PROJECT/SITE REQUIREMENTS

- A. Elevation: Equipment shall be designed to operate at the project ground elevation.
- B. Temperature:
 1. Outdoor areas' equipment shall operate between -30 to 50 C degrees ambient.
 2. Equipment located in indoor locations shall operate between 10 to 35 C degrees ambient minimum.
 3. Storage temperatures shall range from 0 to 50 C degrees ambient minimum.
 4. Additional cooling or heating shall be furnished if required by the equipment as specified herein.
- C. Relative Humidity.
 1. Air-conditioned area equipment shall operate between 20 to 95 percent relative, non-condensing humidity. All other equipment shall operate between 5 to 100 percent relative, condensing humidity.

PART 2 PRODUCTS

2.01 GENERAL

- A. All equipment, cabinets and devices furnished shall be heavy-duty type, designed for continuous industrial service. The system shall contain similar products of a single manufacturer, and shall consist of equipment models, which are currently in production. All equipment provided shall be of modular construction and shall be capable of field expansion.
- B. All electronic/digital equipment shall be provided with radio frequency interference protection.
- C. Electrical:

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1. Equipment shall operate on a 60 Hertz alternating current power source at a nominal 120 volts, plus or minus 10 percent, except where specifically noted. Regulators and power supplies required for compliance with the above shall be provided between power supply and interconnected instrument loop. Where equipment requires voltage regulation, constant voltage transformers shall be supplied.
2. With the exception for field device network connected devices, all electronic instrumentation shall utilize linear transmission signals of isolated 4 to 20 mA DC (milliampere direct current) capable of driving a load up to 750 ohms, unless specified otherwise. However, signals between instruments within the same panel or cabinet may be 1-5 VDC (volts direct current).
3. Outputs of equipment that are not of the standard signals as outlined, shall have the output immediately raised and/or converted to compatible standard signals for remote transmission. No zero-based signals will be allowed.
4. All switches shall have double-pole, double-throw contacts rated at a minimum of 600 VA, unless noted otherwise.
5. Switches and/or signals indicating an alarm, failure or upset condition shall be wired in a fail-safe manner. A fail-safe condition is an open circuit when in an alarm state.
6. Materials and equipment shall be UL approved whenever such approved equipment and materials are available.
7. All equipment furnished shall be designed and constructed so that in the event of power interruption, the systems specified herein shall go through an orderly shutdown with no loss of memory and shall resume normal operation without manual resetting when power is restored, unless otherwise noted.

2.02 ELECTRICAL SURGE PROTECTION

- A. General - Surge protection shall be provided to protect the electronic instrumentation system from induced surges propagating along the signal and power supply lines from lightning, utility, or the facility electrical system. 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. Protection shall be maintenance free and self-restoring. Devices shall have a response time of less than 50 nanoseconds and be capable of handling a discharge surge current (at an 8x20 μ s impulse waveform) of at least 8 kA. Ground wires for all instrumentation device surge protectors shall be connected to a low resistance ground in accordance with NFPA 70, National Electrical Code (NEC).
- B. Provide protection of all analog signal (4-20 mA) circuits where any part of the circuit is outside of the building envelope. Circuits shall be protected at both the transmitter and the control system end of the circuit. Protection devices located near the transmitter shall be mounted in a separate NEMA 4X stainless steel enclosure (plastic is not acceptable) or conduit mounted and shall be Phoenix Contact PT Series, MTL Surge Technologies (Telematic) TP48, Citel TSP-10 series, or equal. Substitution of a single device to protect both 120 VAC and 4-20 mA wires to an instrument is acceptable. Protection devices in control panels shall be MTL Surge Technologies (Telematic) SD Series, Phoenix Contact PT Series, Citel DLA series, or equal.

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- C. Provide protection of all 120 VAC power feeds into control panels, instruments, and control room equipment. Surge arresters shall be Transtector ACP-100BW Series, Phoenix Contact "Mains-PlugTrab", MCG Surge Protection 400 Series, Citel DS40 series, or equal.
- D. Inductive Loads – Provide coil surge suppression devices, such as varistors or interposing relays, on all process controller outputs or switches rated 120 VA or less that drive solenoid, coil, or motor loads.

2.03 SPARE PARTS

- A. All spare parts shall be wrapped in bubble wrap, sealed in a polyethylene bag complete with dehumidifier, then packed in cartons and labeled with indelible markings. Complete ordering information including manufacturer's contact information (address and phone number), part name, part number, part ordering information, and equipment name and number(s) for which the part is to be used shall be supplied with the required spare parts. The spare parts shall be delivered and stored in a location directed by the Owner.
- B. Furnish one of each type of installed Surge protection devices.

2.04 TEST EQUIPMENT

- A. Provide all test equipment, instruction manuals, carrying/storage cases, unit battery charger, special tools, calibration fixtures, cord extenders, patch cords, test leads, and miscellaneous items for checking field operation of all supplied equipment.
- B. All test equipment shall be wrapped in bubble wrap, sealed in a polyethylene bag with a dehumidifier, then packed in cartons and labeled with indelible markings. Complete ordering information including manufacturer's part number, and equipment name shall be supplied. The test equipment shall be delivered and stored in a location directed by the Owner.

PART 3 EXECUTION

3.01 GENERAL INSTALLATION

- A. Instrumentation and accessory equipment shall be installed in accordance with manufacturer instructions. The indicated locations of equipment, transmitters, alarms and similar devices indicated are approximate only. Exact locations of all devices shall be as approved by the Owner during construction. Obtain in the field, all information relevant to the placing of process control equipment and in case of interference with other work, proceed as directed by the Owner and furnish all labor and materials necessary to complete the work in an approved manner at no additional cost to the Owner.
- B. Provide brackets and hangers required for mounting of equipment.
- C. The shield on each process instrumentation cable shall be continuous from source to destination and be grounded at only one ground point for each shield.
- D. Investigate each space in the building through which equipment must pass to reach its final location. If necessary, ship material in sections sized to permit passing through restricted areas in the building. Provide on-site service to oversee the installation, the placing and location of system components, their connections to the process equipment panels, cabinets and devices, subject to

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the Consultant's approval. Certify that field wiring associated with the equipment is installed in accordance with best industry practice. Coordinate work under this Section with that of the electrical work specified under applicable Sections.

- E. Provide sunshades for equipment mounted outdoors in direct sunlight. Sunshades shall include standoffs to allow air circulation around the cabinet. Orient equipment outdoors to face to the North or as required to minimize the impact of glare and ultraviolet exposure on digital readouts.

3.02 TESTING

- A. The results of all testing shall be tracked on a project specific status sign off form or similar document. The PCSS shall be responsible for maintaining the sheet.
- B. The tests the PCSS is required to perform are as follows.
 - 1. Field Testing.
 - a. Operational Readiness Test (ORT).
 - b. Functional Demonstration Test (FDT).
- C. Wherever possible, perform tests using actual process variables, equipment, and data. Where it is not practical to test with real process variables, equipment, and data, provide all special testing materials and equipment required for a suitable means of simulation.
- D. The PCSS shall coordinate all required testing with the Contractor, all affected Subcontractors, and the Owner.
- E. No equipment shall be shipped to jobsite until the Owner has received all Factory Testing results and approved the system as ready for shipment.
- F. The Owner reserves the right to test or re-test any functions.
- G. Correction of Deficiencies:
 - 1. All deficiencies in work and/or items not meeting specified testing requirements shall be corrected to meet specification requirements at no additional cost to the Owner.
 - 2. Testing, as specified herein, shall be repeated after correction of deficiencies is made until the specified requirements are met. This work shall be performed at no additional cost to the Owner.
- H. Operational Readiness Test (ORT):
 - 1. The purpose of the ORT is to check that the process equipment, instrument installation, instrument calibration, instrument configuration, field wiring, control panels, and all other related system components are ready to monitor and control the processes. This test will determine if the equipment is ready for operation.
 - 2. This test shall take place prior to FDT and startup. Prior to starting this test, relevant process equipment shall be installed and mechanically tested, instruments installed, control panels installed, and field wiring complete.

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3. Required Documents for Test:
 - a. Master copy of the PCSS developed field testing signoff forms.
 - b. Testing procedures.
 - c. Calibration forms.
4. These inspections, calibrations, and tests do not require witnessing. However, the Owner may review and spot-check the testing process periodically. Any deficiencies found shall be corrected by the PCSS prior to commencement of the Functional Demonstration Test.
5. The PCSS shall maintain the Sign-off forms and the Calibration forms at the job site and make them available to the Owner at any time.
6. The following tests shall be performed as part of the ORT:
 - a. Instrument calibration, configuration, and set-up.
 - b. Input/Output (I/O) Testing to the OITs.
7. Instrument calibration, configuration, and set-up.
 - a. Calibrate, configure, and set-up all components and instruments to perform the specified functions.
 - b. Calibration form.
 - 1) For any component or instrument requiring dip switch settings, calibration, or custom configuration, maintain a calibration form in the field documenting this information. These forms shall provide a summary of the actual settings used in the field to allow an Instrument technician to replace the device entirely and configure it to function as it did before.
 - 2) This information shall be added to the Instrument data sheet, shall be added to a copy of the manufacturer's standard "Configuration Sheet," or a separate form shall be created.
 - a) If a separate form, the form shall list the Project Name, Loop Number, ISA Tag Number, I/O Module Address, Manufacturer, Model Number/Serial Number, Output Range and Calibrated Value.
 - 3) Some examples of required information are:
 - a) For Discrete Devices: Actual trip points and reset points.
 - b) For Instruments: Any configuration or calibration settings entered into instrument
 - c) For Controllers: Mode settings (PID).
 - d) For I/O Modules: Dip switch settings, module configuration (if not documented in the native programming documentation).
 - 4) Maintain a copy of these forms in the field during testing and make them available for inspection at any time.
 - 5) For any device that allows a software back-up of configuration files to a laptop, make the configuration files available to the Owner for inspection. Submit as part of the Final System Documentation as specified herein.

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8. I/O Testing.

- a. The purpose of the I/O testing is to check that the process equipment, instrument installation, calibration, configuration, field wiring, and the control panels are set-up correctly to monitor and control the processes. This test is commonly referred to as a "loop test" or an I/O checkout.
- b. PCSS in conjunction with the contractor shall test signals under process conditions. The preferred test method will always be to execute the test wherever possible to the end elements. For example, the preferred test will prove valve open/close limit switches by operating the valve, not by installing a jumper on the limit switch contacts. However, if the equipment or process is not available to test a signal over its entire calibrated range, the PCSS may test using a simulation method and make a note on the sign-off form.
- c. The following I/O tests shall be performed.
 - 1) Discrete Input – At the device or instrument, change signal condition from the inactive to active state. Observe results on all indicators within the loop such as the OIT screens, pilot lights, horns, beacons etc.
 - 2) Analog Input – Test the analog signal over the entire engineering range at 25 percent increments from 0 to 100 percent as well as on increasing and decreasing range. Observe results on all indicators within the loop such as the OIT screens, recorders, digital indicators, etc.
 - 3) Discrete output signals shall be tested by switching the equipment to manual control at the OIT nodes and turning the output on or using other means to turn the output on. Then verify the equipment responds accordingly.
 - 4) Analog output signals shall be tested by switching the equipment to manual control at the OIT nodes and turning the output on or other means to turn the output on. Then verify the equipment responds accordingly.

9. Testing of Automatic Control Strategies:

- a. All automatic control strategies shall be verified using actual process equipment and instruments, or other means, to verify the logic performs as expected. Verify faults and logical failure scenarios for control strategies such as instrument failures, equipment failures, loss of communication between the OIT or SCADA and the PLC, loss of peer-to-peer communication, out of range testing for analog inputs, loss of power, and all other strategies specified in the control strategy document.

I. Functional Demonstration Test (FDT):

1. After the facility is started-up and running in automatic control to the extent possible, a Functional Demonstration Test shall be performed. The purpose of the FDT is to allow the Owner representatives to witness the actual functionality, performance, and stability of the system while connected to the process equipment.
2. Required Documents for Test:
 - a. Set of panel drawings and wiring diagrams from ORT with corrections noted.
 - b. Set of contract documents - all drawings and specifications.
 - c. All design-change related documentation.
 - d. Signed-off master copy of the PCSS developed field testing signoff forms.

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- e. Testing procedures.
 - f. Copy of completed calibration forms.
 - g. One copy of all O & M Manuals for PCSS-supplied equipment.
- 3. A witnessed FDT shall be performed on each process area. To the extent possible, repeat the testing performed during the ORT.
 - 4. The daily schedule specified to be followed during the factory tests shall also be followed during the FDT.
 - 5. Punchlist items and resolutions noted during the test shall be documented on the Punchlist/Resolution form. In the event of rejection of any part or function test procedure, the PCSS shall perform repairs, replacement, and/or retest within 10 days.
 - 6. Upon successful completion of the FDT, the PCSS shall submit a record copy of the test results as specified in "PART 1-GENERAL."

END OF SECTION

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SECTION 409140
INSTRUMENTATION AND CONTROLS – INSTRUMENTS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This section covers the furnishing, installation, and services for instruments.
- B. Any instrument with a display mounted outdoors shall be furnished with a sun shield.

1.02 RELATED WORK

- A. Refer to Section 406113.

1.03 SUBMITTALS

- A. Submit complete documentation of all field instruments using Industry Standard Architecture. (ISA)-TR20.00.01-2007 data sheet formats. Submit a complete Bill of Materials (BOM) or Index that lists all instrumentation equipment. The list shall be sorted by Loop Number.
- B. Submit separate data sheets for each instrument including:
 - 1. Equipment Number and ISA tag number per the drawings.
 - 2. Product (item) name used herein and on the Drawings.
 - 3. Manufacturer's complete model number.
 - 4. Location of the device.
 - 5. Input - output characteristics.
 - 6. Range, size, and graduations in engineering units.
 - 7. Physical size with dimensions, enclosure National Electrical Manufacturers Association (NEMA) classification and mounting details in sufficient detail to determine compliance with requirements.
 - 8. Materials of construction for enclosure and wetted parts.
 - 9. Instrument or control device sizing calculations where applicable.
 - 10. Certified calibration data for all flow metering devices.
 - 11. Two-wire or four-wire device type as applicable.
- C. Submit catalog cuts for all instruments. Submit descriptive literature for each hardware component, which fully describes the units being provided.

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- D. Submit index and data sheets in electronic format as well as hard copies on 8-1/2-inch x 11-inch formats. Electronic format shall be in Microsoft Excel or Word. Submit electronic copy on USB Flash Drive.

1.04 MAINTENANCE

- A. Refer to Section 406113.

1.05 INSTRUMENT TAGS

- A. A permanent stainless steel or other non-corrosive material tag firmly attached and permanently and indelibly marked with the instrument tag number, as indicated in the Drawings, shall be provided on each piece of equipment supplied under this Section and related sections. Equipment shall be tagged before shipping to the site.
- B. Provide 1/8-inch by 3/8-inch, Type 316 stainless steel button head machine screws.
- C. All supplied instrument transmitters and instrument elements shall have a stainless-steel identification tag attached to each transmitter and element prior to shipment. Tag shall be attached via stainless steel chain or stainless steel wire (24 gauge min) to a non-removable part of the device. The tag size shall be a minimum of 1.5 sq in. Tag shall include the ISA alphanumeric instrument number as indicated by the Engineer. The alphanumeric instrument number shall be stamped into the tag and shall have a minimum of 3/16-inch high alphanumeric characters.

1.06 APPROVALS/CERTIFICATIONS

- A. Instruments specified herein shall meet at a minimum, the National Electrical Manufacturers Association (NEMA) rating for non-hazardous locations listed with each instrument.

PART 2 PRODUCTS

2.01 MAGNETIC FLOW METER

- A. Flow Element
 - 1. Type:
 - a. Pulsed DC type.
 - 2. Function/Performance:
 - a. Operating Temperature: Process liquid temperatures of 0 to 140 degrees F or greater, dependent upon liner, and an ambient of minus 30 to 150 degrees F.
 - b. Radio Frequency Interference (RFI) protection: RFI protection shall be provided as recommended by the manufacturer.
 - c. Pressure rating: Equal to piping system where meter is installed.
 - d. Additional: Meter shall be capable of running empty indefinitely without damage to any component.
 - 3. Physical:
 - a. Metering Tube: 316 stainless steel or equivalent.

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- b. Flanges: ANSI 150 lb or DIN PN 16 carbon steel, as required by the piping system, unless otherwise indicated. ANSI 150 lb or DIN PN 16 stainless steel flanges shall be used on all SS process pipes.
 - c. Liner: Polyurethane or composite elastomer unless otherwise indicated on the Drawings or in the Instrument Device Schedule.
 - d. Electrodes: 316 stainless steel standard minimum requirements. All electrodes to be compatible with process fluid or electrodes to be supplied as listed in the Instrument Device Schedule.
 - e. Measurement Element: 2 Measurement Electrodes plus 1 Reference Electrode
 - f. The electrodes will be coated, a self-cleaning or a removable electrode option must be provided with that meter.
 - g. Housing: Meters above grade shall be NEMA 4X (IP65).
 - h. Finish: All external surfaces shall have a chemical and corrosion resistant finish.
4. Power Requirements:
- a. Meter shall be 24 VDC powered instrument, receiving its power from transmitter.
5. Accessories/Documentation Required:
- a. Factory calibration: All meters shall be factory calibrated. A copy of the calibration report shall be included in the O&M manual.
 - b. Grounding: Meter shall be grounded in accordance with the manufacturer's recommendation. Provide ground ring, ground wires, gaskets, etc., as required. All materials shall be suitable for the liquid being measured and must be compatible with process fluid and with the process pipe.
 - c. For meters with remote mounted transmitters, signal cable for installation between the flow tube and the transmitter. Length shall be as required by installation.
- B. Flow Converter/Transmitter
1. Type:
- a. Microprocessor based, intelligent transmitter compatible with flow tube provided.
 - b. Integral mount or mounted remote from the flow tube as required by the physical location.
2. Functional/Performance:
- a. Accuracy (including flow tube): Plus/minus 0.5 percent of flow rate or better.
 - b. Operating Temperature: -20 to 140 degrees F.
 - c. Output: Isolated 4-20 mA with HART protocol. Current output adjustable over the full range of the instrument. Provide a dry contact to indicate reverse flow.
 - d. Diagnostics: Self diagnostics with on screen display of faults.
 - e. Display: Digital indicator displaying flow in engineering units indicated in the Instrument Device Schedule.
 - f. Totalizer: A fully configurable totalizer integral to the transmitter. Totalized flow shall be displayed.
 - g. Empty Tube Zero: The transmitter shall include a feature that will lock the output at zero when no flow is detected. The empty tube zero feature shall be enabled

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automatically when the transmitter detects no flow or manually through a contact input.

h. Provide electrode cleaning unit to match flow element requirements.

3. Physical:

- a. Transmitter shall be suitable for surface or pipe stand mounting.
- b. Enclosure shall be NEMA 4X (IP65).

4. Power Requirements:

- a. The transmitter shall be 120 VAC powered instrument.

5. Accessories/ Required:

- a. Keypad where required for transmitter configuration.

C. Manufacturer:

- 1. Rosemount Series 8705 Meter and 8712 Transmitter for remote mounted transmitter.
- 2. ABB Instruments WaterMaster.

2.02 GAUGE PRESSURE TRANSMITTERS

A. Type.

- 1. Microprocessor based, intelligent type.

B. Function/Performance.

- 1. Range: Range of the transmitter shall be the standard range of the manufacturer closest to the pressure range to be metered.
- 2. Accuracy: 0.075 percent of span.
- 3. Operating Temperature: -4 to 176 degrees F.
- 4. Temperature Effect: Combined temperature effects shall be less than 0.2 percent of maximum span per 82 degrees F temperature change.
- 5. Output: 4-20 mA DC linear with pressure or level, with HART protocol. Zero adjustable over the range of the instrument provided calibrated span is greater than the minimum calibrated span.
- 6. Stability: 0.05 percent of upper range limit for one year.
- 7. Display: Digital indicator displaying pressure or level in the engineering units indicated in the Instrument Device Schedule.
- 8. Diagnostics.

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- a. Self-diagnostics with transmitter failure driving output to above or below out of range limits.
 - b. Simulation capability for inputs and loop outputs.
 - c. Test terminals available to ease connection for test equipment without opening the loop.
 - d. Registers to record minimum and maximum pressure and temperatures transmitter has been exposed to shall be available.
 - e. Run-time clock available to determine usage for warranty purposes. 5-year warranty on this clock reading is included.
9. Over Range Protection: Provide positive over range protection to 150 percent of the maximum pressure of the system being monitored by the instrument.
10. If required to meet the range or suppression/elevation requirements, a differential pressure transmitter shall be provided.

C. Physical.

1. Enclosure: NEMA 4X (IP66).
2. Process Wetted Parts: Isolating diaphragm and other wetted metal parts shall be 316L stainless steel, unless otherwise indicated in the device schedule. Gaskets and O rings shall be Teflon.
3. Power Supply: 24 VDC loop power.
4. Sensor Fill Fluid: Silicone.

D. Accessories Required.

1. Provide span and zero adjustment at each transmitter and through the handheld programming unit.
 - a. Configuration of the transmitter may be accomplished using the local display and pushbuttons without the use of an external programming device.
2. For each transmitter provide a 316 stainless steel block & bleed shut off valve. Valves may be mounted directly to the instrument or separately mounted. Valves shall be by the instrument manufacturer or by D/A Manufacturing or Anderson Greenwood.

E. Manufacturer(s).

1. Rosemount 3051CG.
2. Autrol APT 3100.

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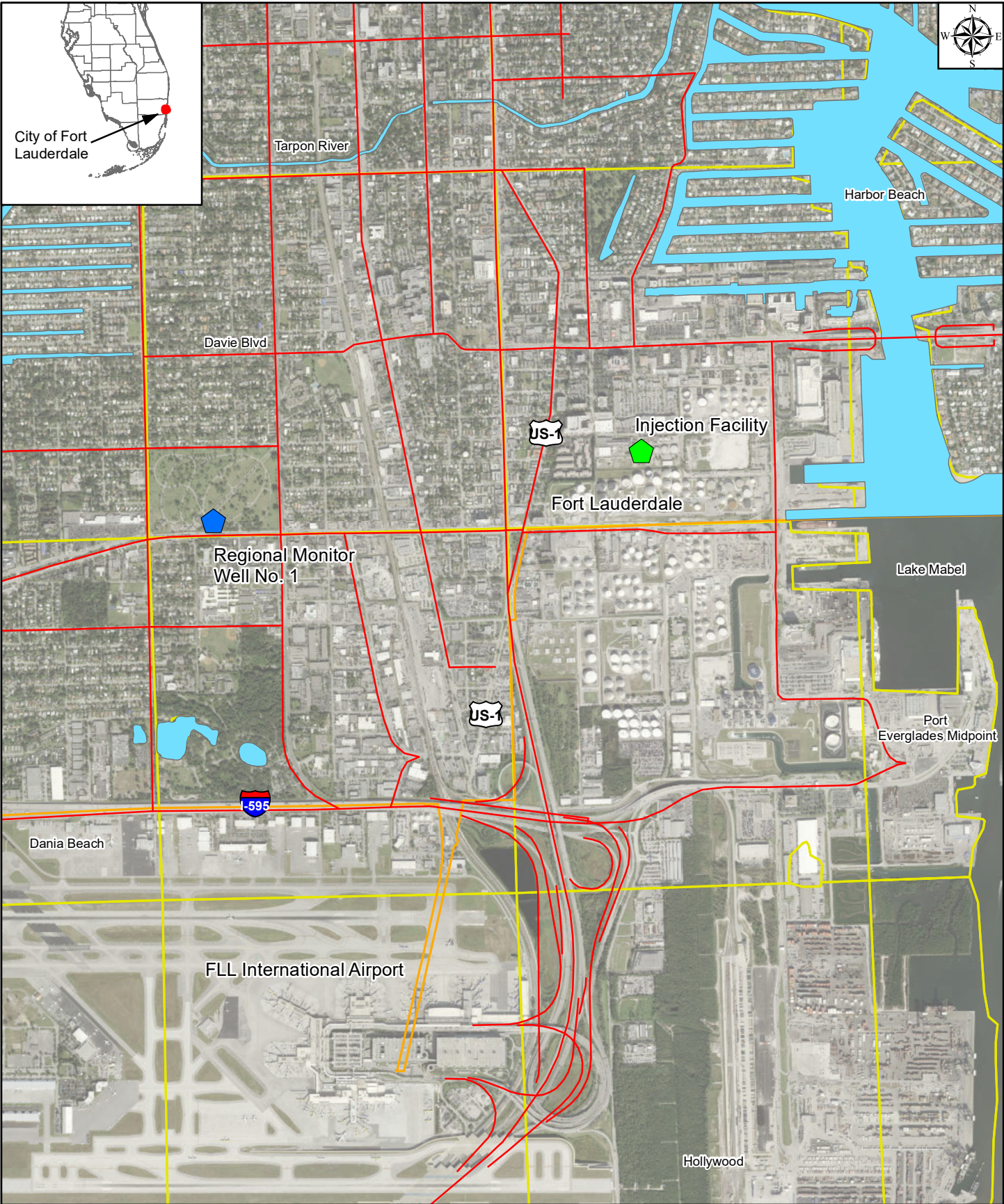
PART 3 EXECUTION

3.01 GENERAL

- A. See execution requirements in Section 406113.
- B. Unless specifically indicated, direct reading or electrical transmitting instrumentation shall not be mounted on process piping. Instrumentation shall be mounted on instrument racks or stands. All instrumentation connections shall be provided with shutoff and drain valves. For differential pressure transmitters, 5-valve manifolds for calibration, testing and blow down service shall also be provided. For chemical or corrosive fluids, diaphragm seals with flushing connections shall be provided.

END OF SECTION

FIGURES



City of Fort Lauderdale

- Major Roads
- Waterways
- City Limits
- G.T. Lohmeyer Facilities
- Regional Monitor Well 1 for GTL
- Public Land Survey System

0 1,000 2,000 4,000 Feet



Figure 1
G.T. Lohmeyer Injection Facility
Site Location

CAM #19-0444

Exhibit 3

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Figure No. 2
City of Fort Lauderdale
G.T. Lohmeyer Injection Facility
Site Location Plan

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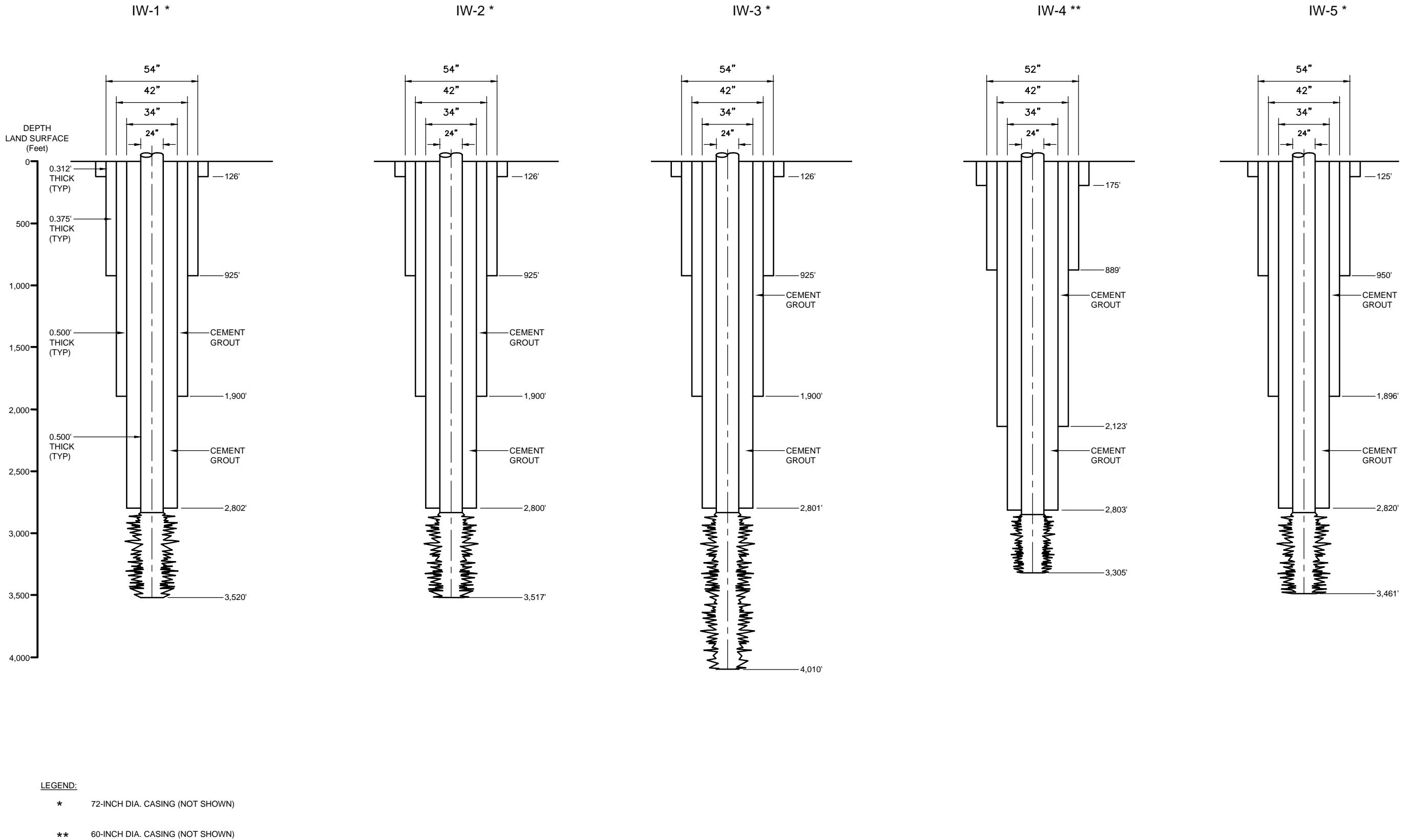


Figure No. 3
G.T. Lohmeyer Injection Facility
Injection Well Construction Diagrams

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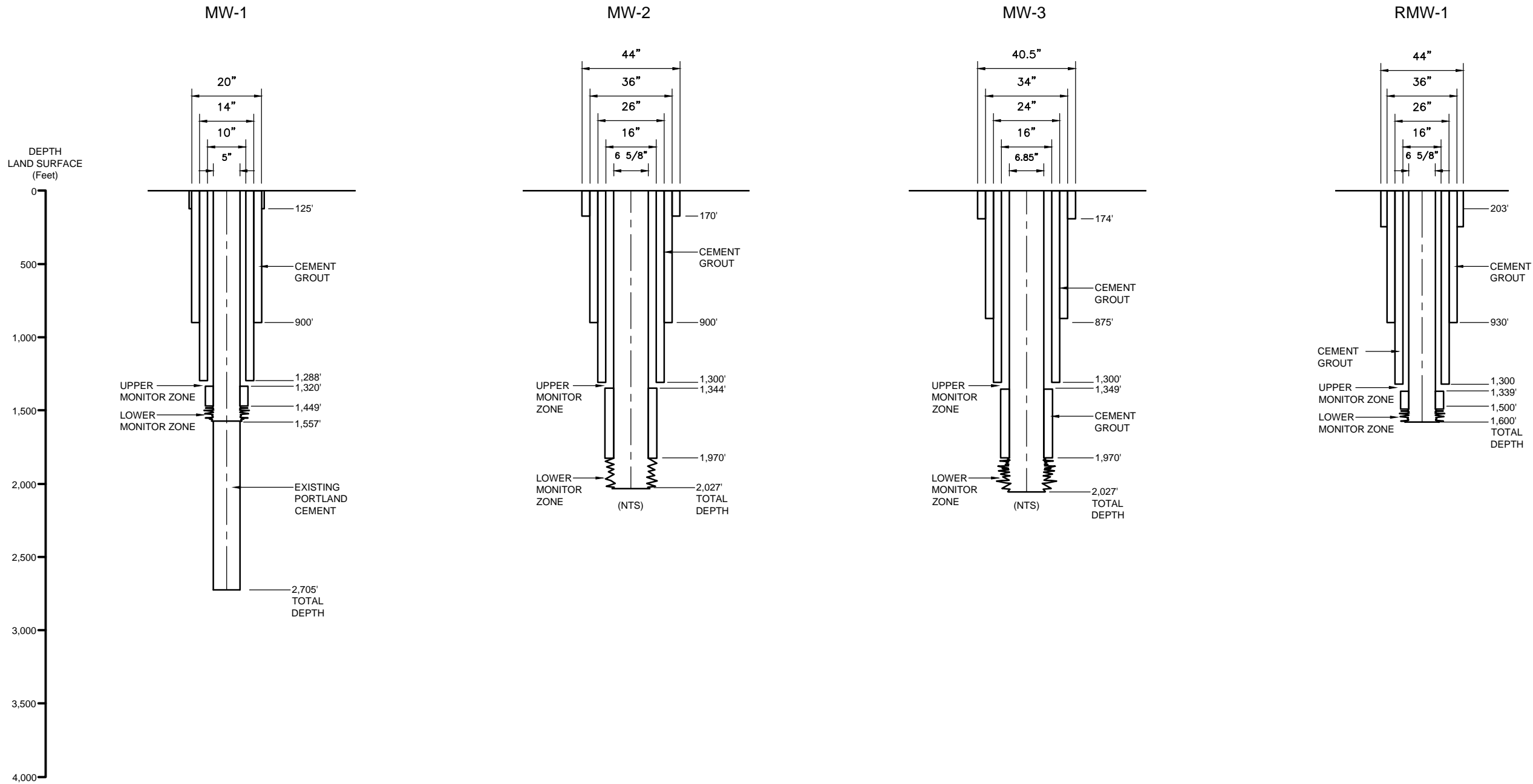


Figure No. 4
G.T. Lohmeyer Injection Facility
Monitor Well Construction Diagrams

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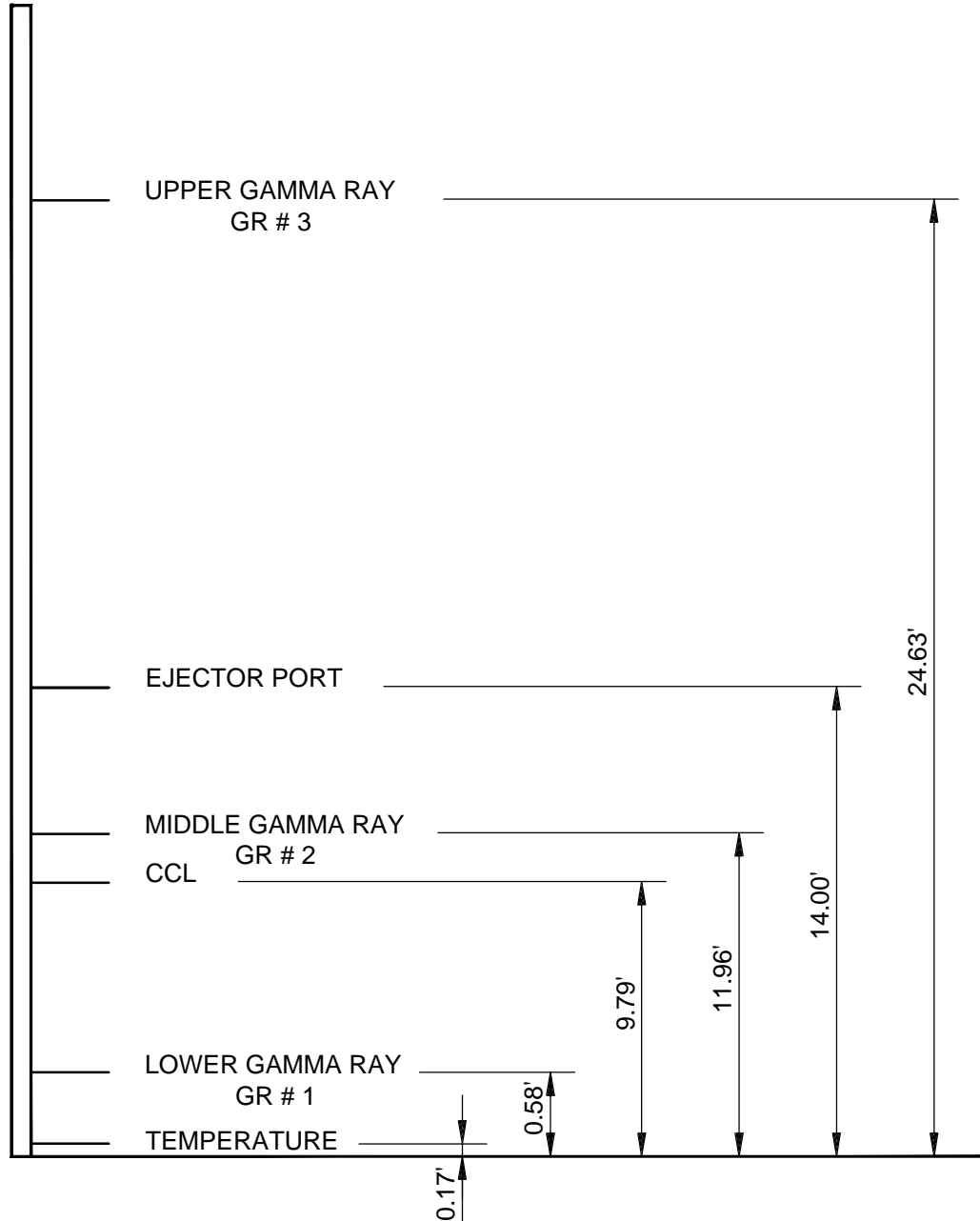


Figure No. 5
 City of Fort Lauderdale
 G.T. Lohmeyer Injection Facility
 Radioactive Tracer Tool Diagram

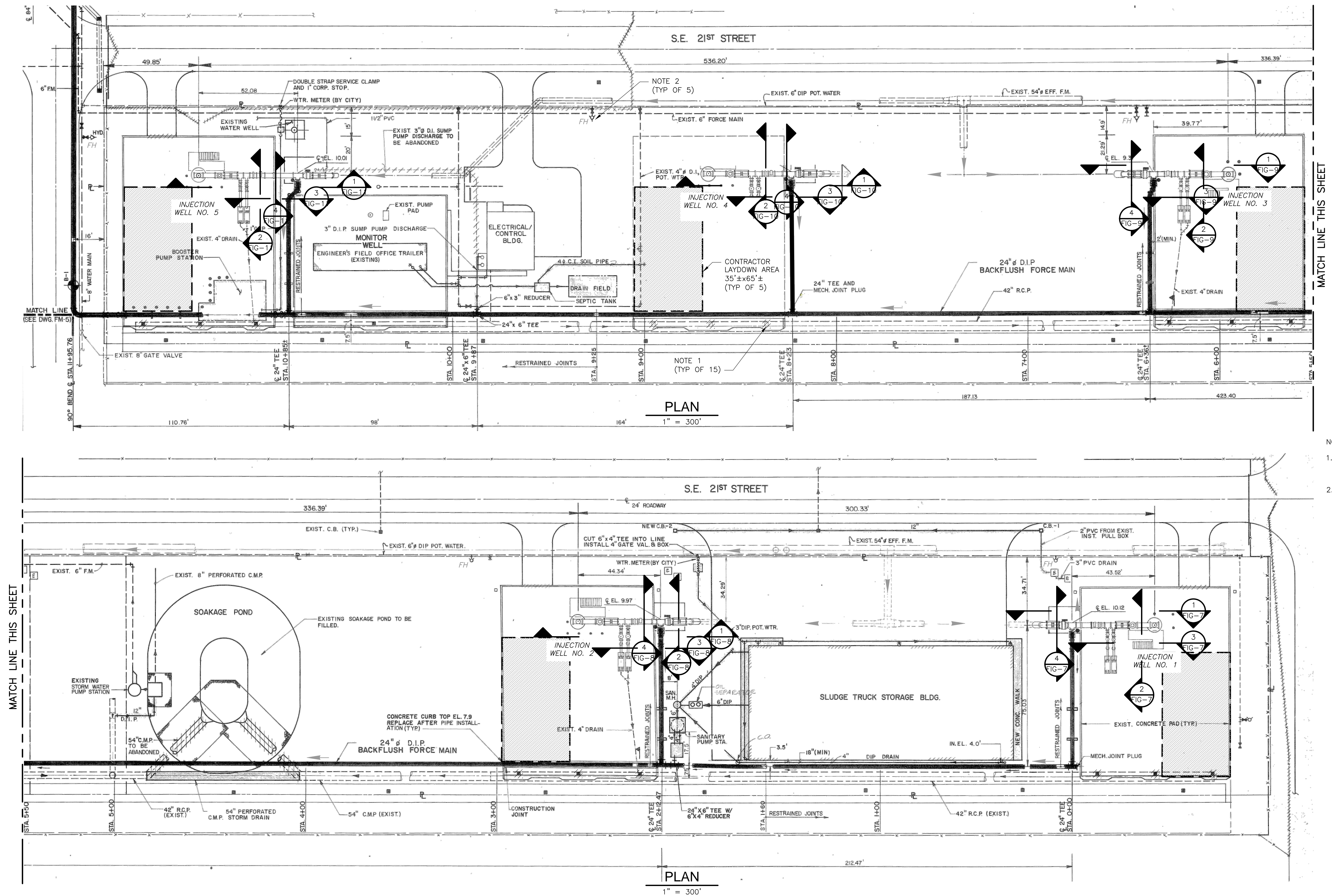
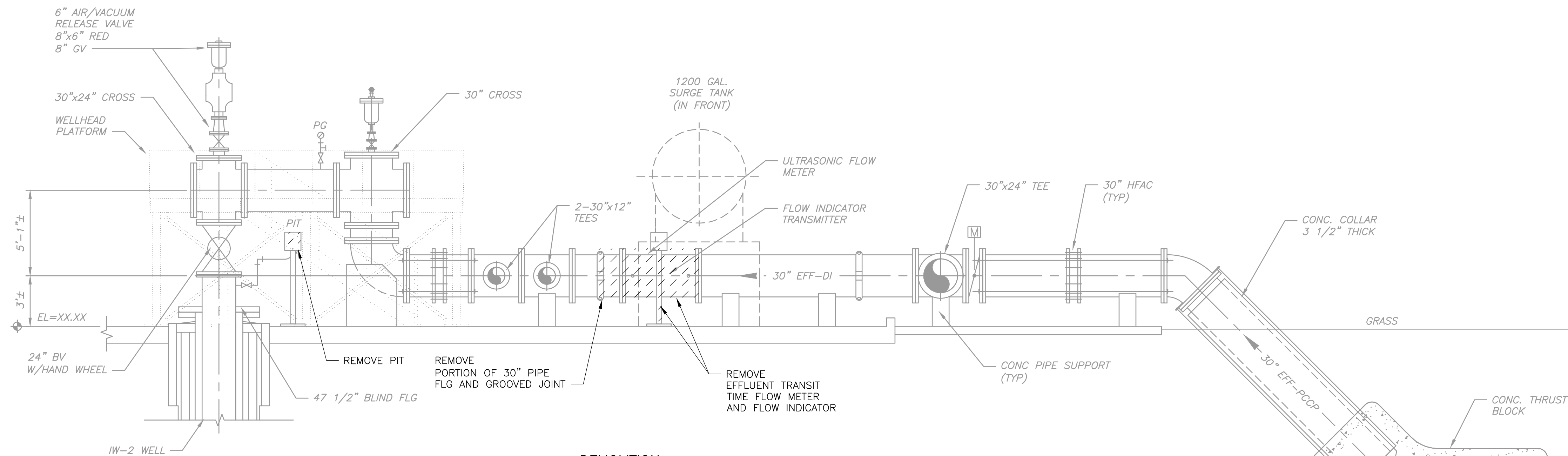


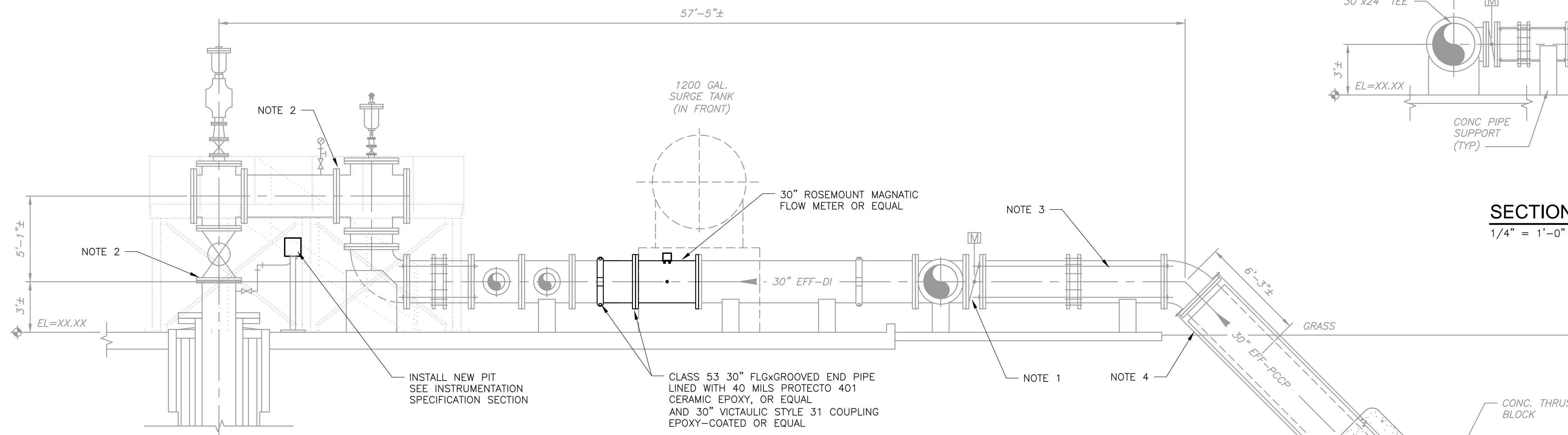
Figure No. 6
G.T. Lohmeyer Injection Facility
Wells Site Plan



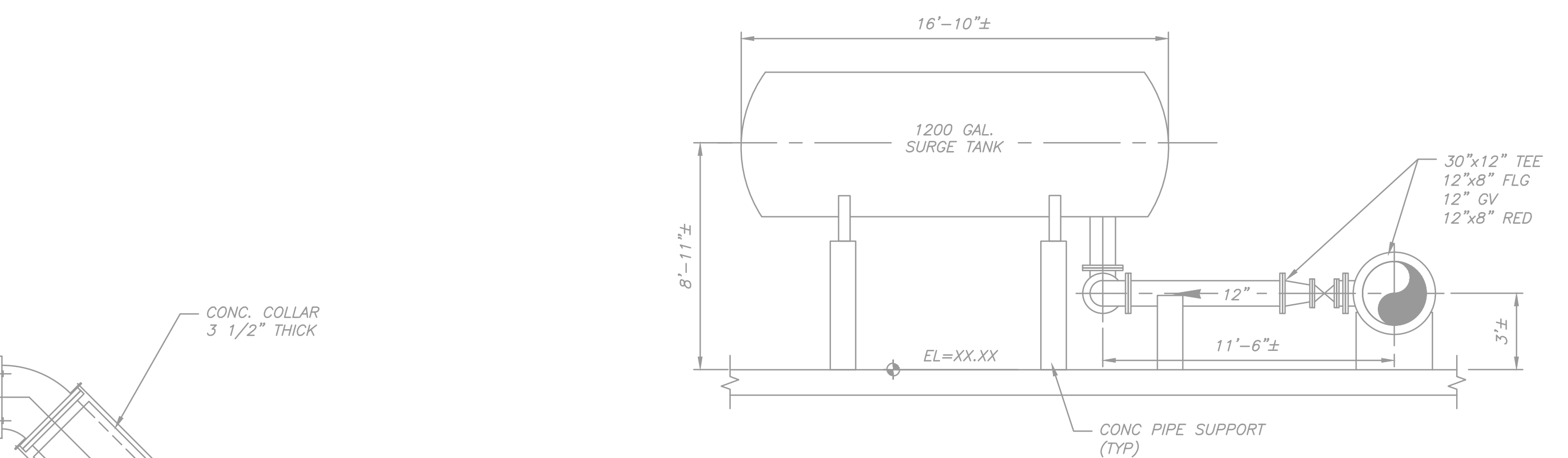
DEMOLITION
SECTION 1
1/4" = 1'-0" FIG-6

NOTES:

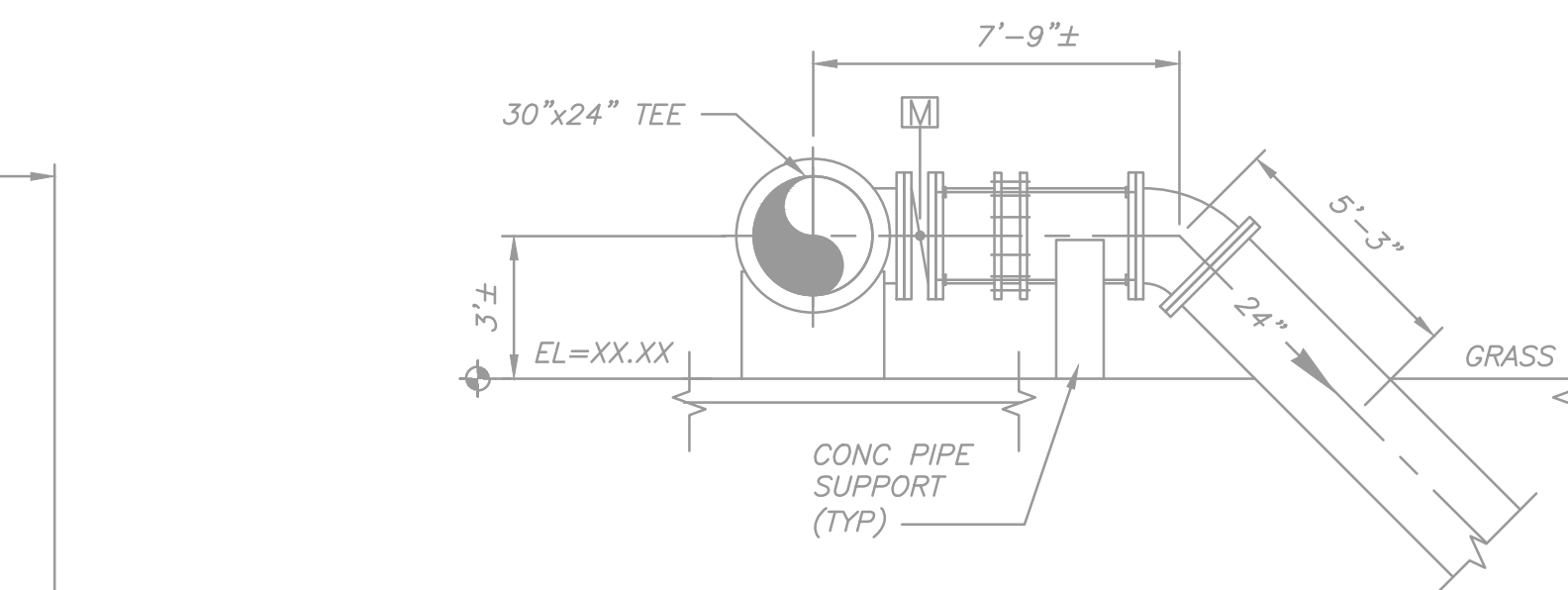
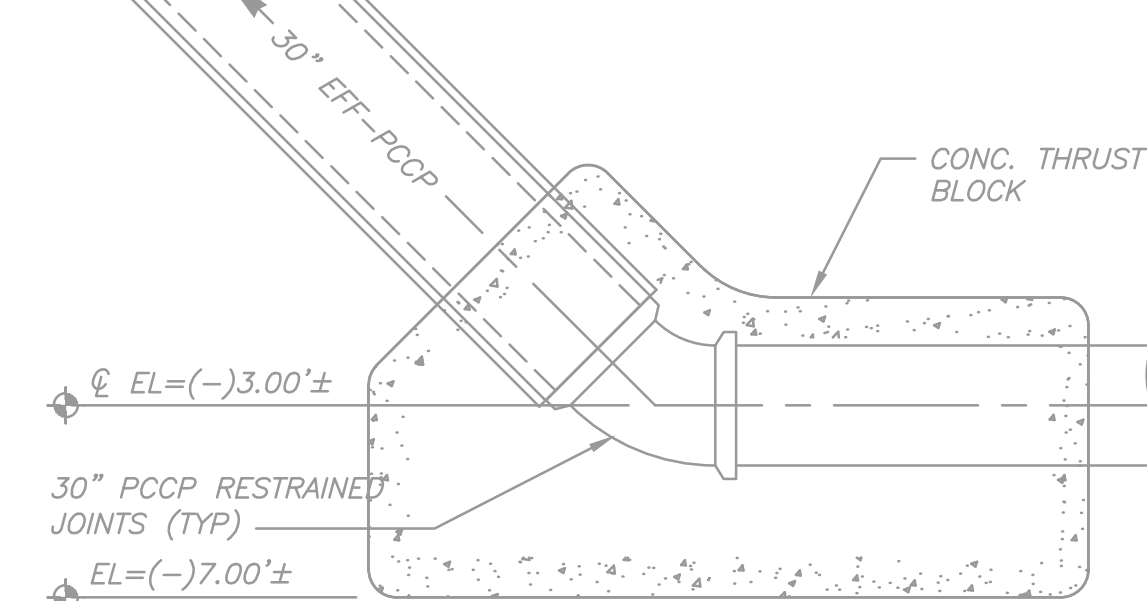
1. CITY TO CLOSE VALVE DURING METER REPLACEMENT.
2. REPLACE EXISTING NUTS, BOLTS AND GASKETS, WITH NEW 316 STAINLESS STEEL NUTS AND BOLTS AND GASKET WITH GALVANIC PROTECTION. GASKETS FOR 250 PSI WORKING PRESSURE FLANGES SHALL BE 1/8-INCH THICK, RED RUBBER (SBR), HARDNESS 80 (SHORE A), RATED TO 200 DEGREES F, CONFORMING TO ANSI B16.21, AWWA C207, AND ASTM D1330, GRADES 1 AND 2.
3. PAINT ABOVE GROUND PIPE, FITTINGS, VALVES, AND SURGE TANK. SEE PAINTING SPECIFICATION SECTION FOR SURFACE PREPARATION AND APPLICATION.
4. SCORE EXISTING ABOVE GROUND CONCRETE SIX INCHES ABOVE GRADE. REMOVE ALL EXISTING AND FAILING CONCRETE WITHOUT DAMAGING EXISTING PIPE. PREPARE EXISTING PIPE OR CEMENT FOR REPAIR IN ACCORDANCE WITH AMERICAN SPIRALWELD PIPE FIELD CEMENT MORTAR RECOMMENDATION CEMENT MORTAR REPAIR (SEE FIGURE 7).
5. PIPE FLANGE SHOULD BE PAINTED BEFORE BOLT AND NUT CONNECTIONS. (STAINLESS STEEL BOLTS AND NUTS NOT TO BE PAINTED).



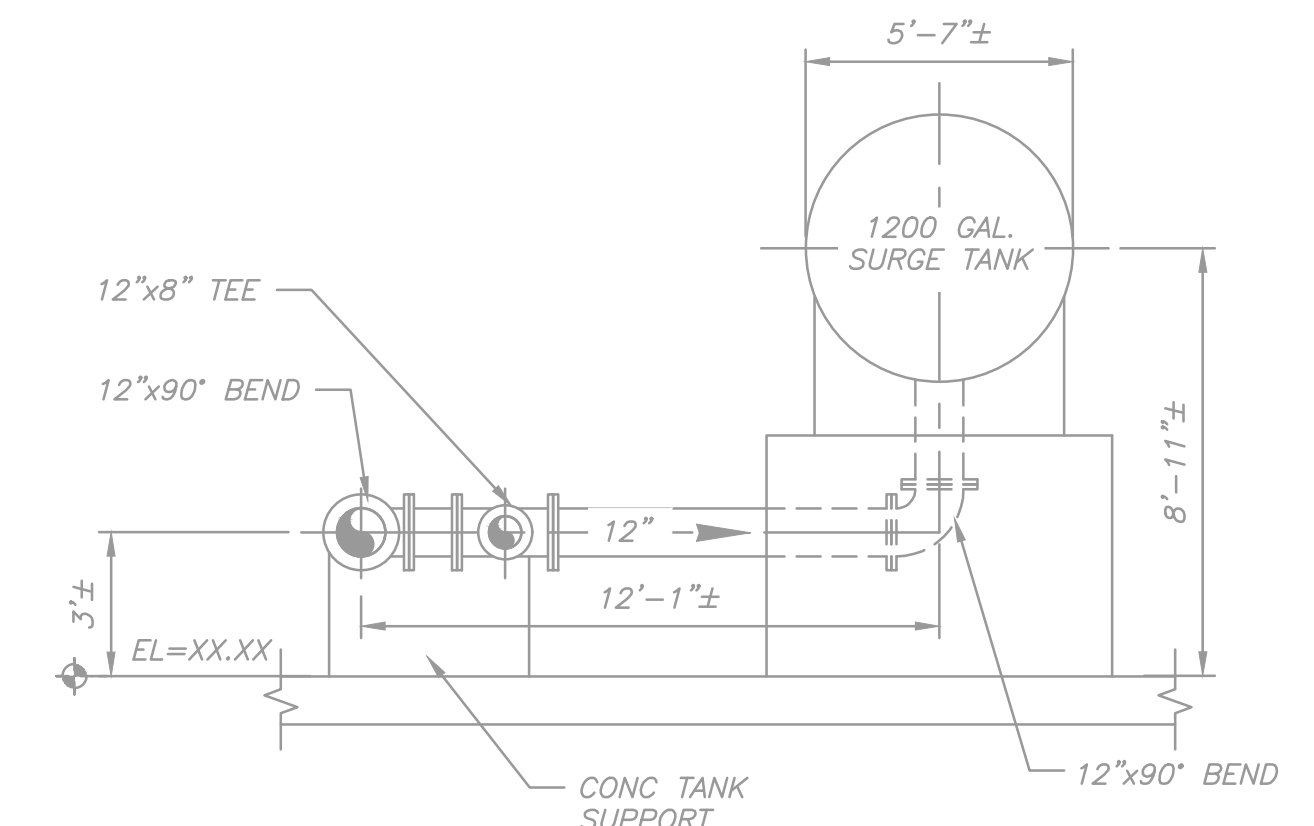
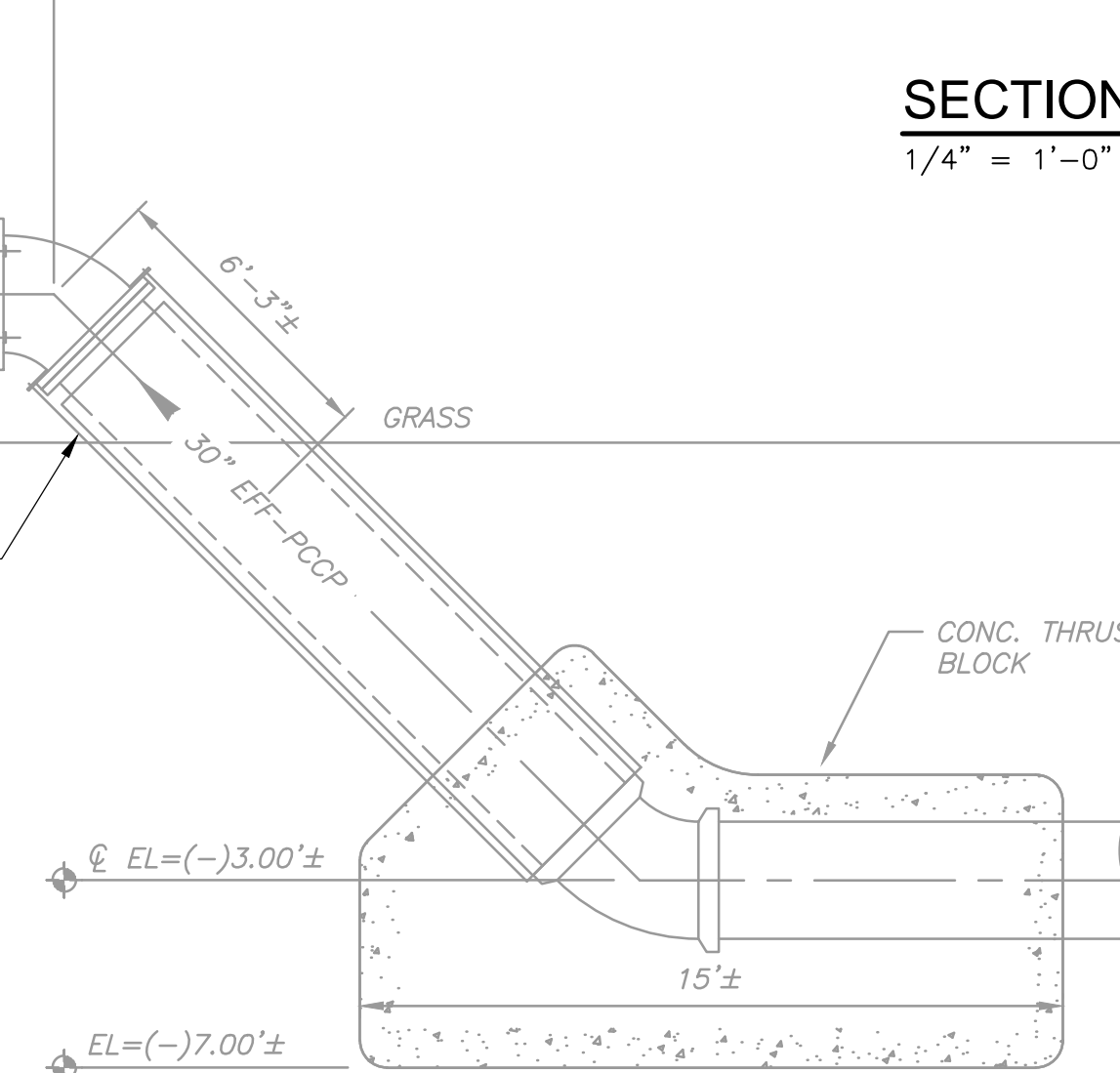
MODIFICATIONS
SECTION 1
1/4" = 1'-0" FIG-6



SECTION 2
1/4" = 1'-0" FIG-6



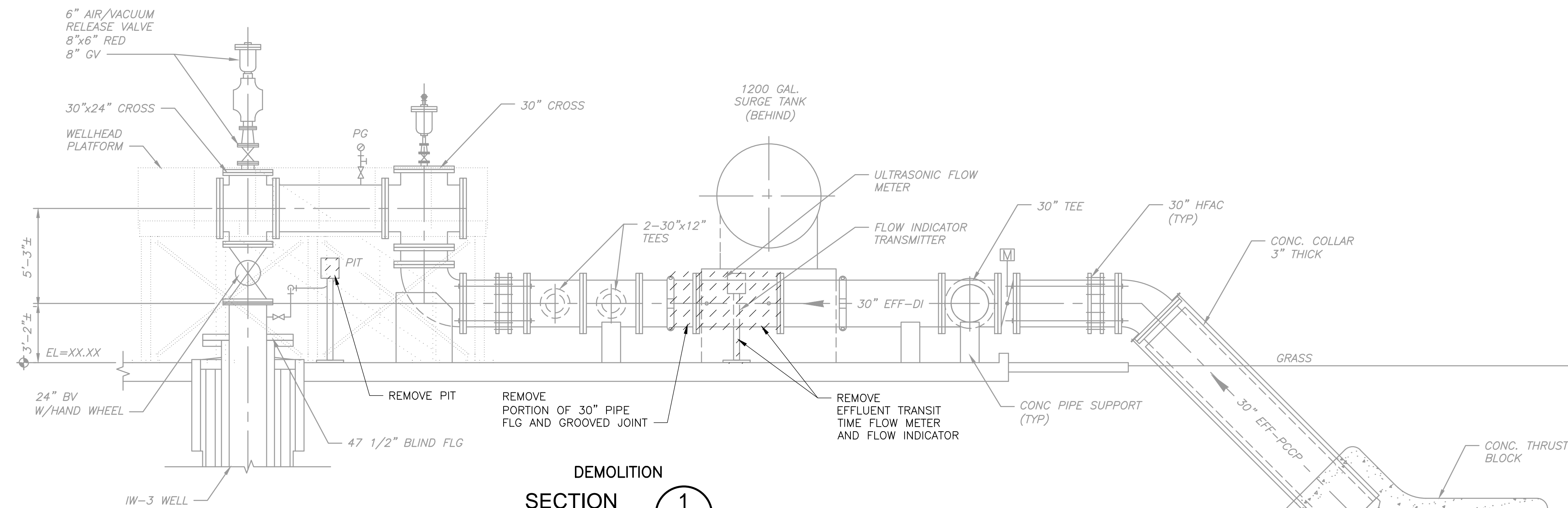
SECTION 4
1/4" = 1'-0" FIG-6



SECTION 3
1/4" = 1'-0" FIG-6

**CDM
Smith**

Figure No. 8
G.T. Lohmeyer Injection Facility
IW-2 Well Head Sections

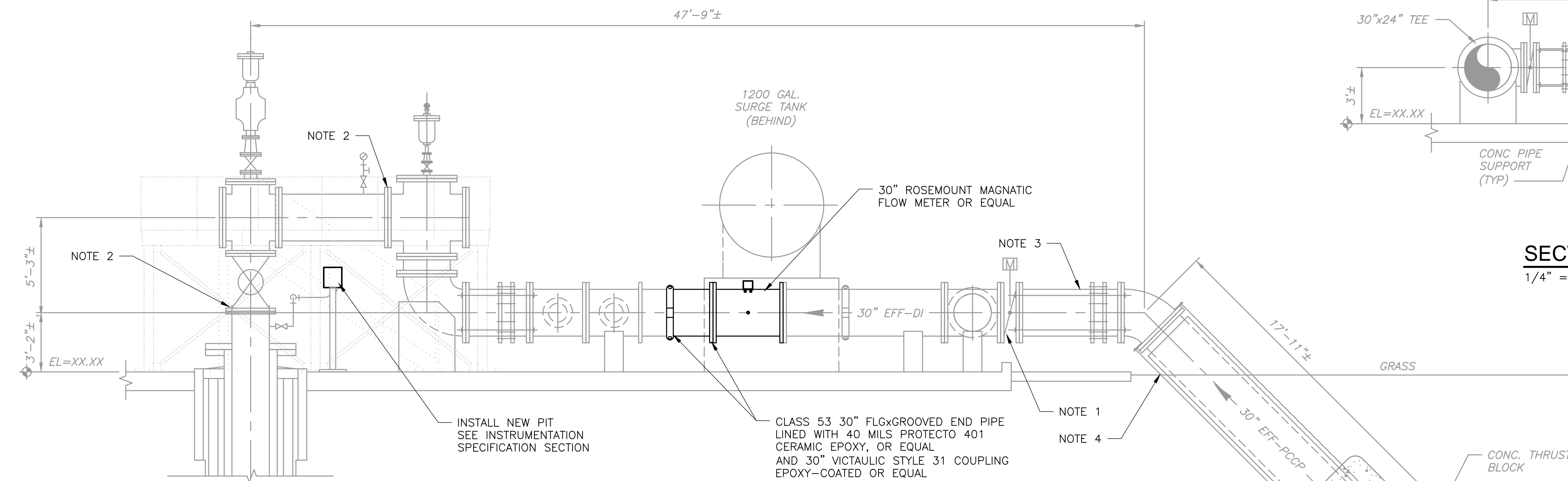


DEMOLITION
SECTION 1
1/4" = 1'-0"

FIG-6

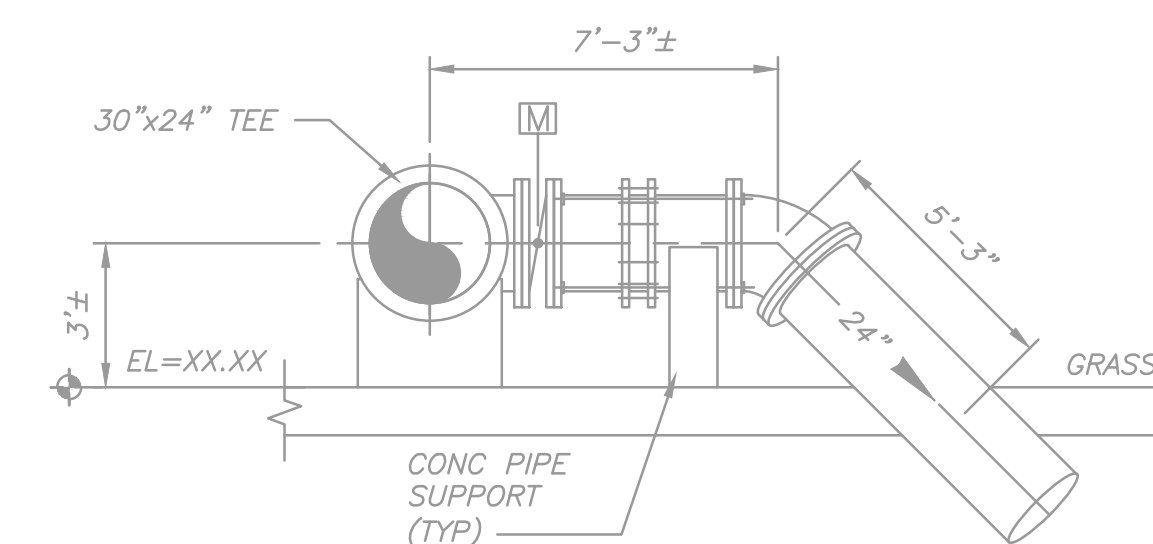
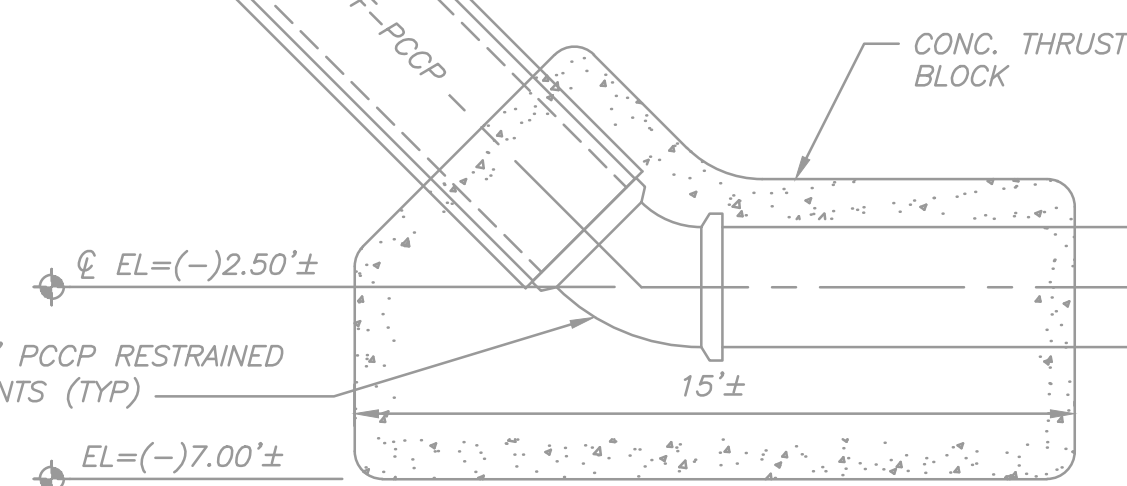
NOTES:

1. CITY TO CLOSE VALVE DURING METER REPLACEMENT.
2. REPLACE EXISTING NUTS, BOLTS AND GASKETS, WITH NEW 316 STAINLESS STEEL NUTS AND BOLTS AND GASKET WITH GALVANIC PROTECTION. GASKETS FOR 250 PSI WORKING PRESSURE FLANGES SHALL BE 1/8-INCH THICK, RED RUBBER (SBR), HARDNESS 80 (SHORE A), RATED TO 200 DEGREES F, CONFORMING TO ANSI B16.21, AWWA C207, AND ASTM D1330, GRADES 1 AND 2.
3. PAINT ABOVE GROUND PIPE, FITTINGS, VALVES, AND SURGE TANK. SEE PAINTING SPECIFICATION SECTION FOR SURFACE PREPARATION AND APPLICATION.
4. SCORE EXISTING ABOVE GROUND CONCRETE SIX INCHES ABOVE GRADE. REMOVE ALL EXISTING AND FAILING CONCRETE WITHOUT DAMAGING EXISTING PIPE. PREPARE EXISTING PIPE OR CEMENT FOR REPAIR IN ACCORDANCE WITH AMERICAN SPIRALWELD PIPE FIELD CEMENT MORTAR RECOMMENDATION CEMENT MORTAR REPAIR (SEE FIGURE 7).
5. PIPE FLANGE SHOULD BE PAINTED BEFORE BOLT AND NUT CONNECTIONS. (STAINLESS STEEL BOLTS AND NUTS NOT TO BE PAINTED).



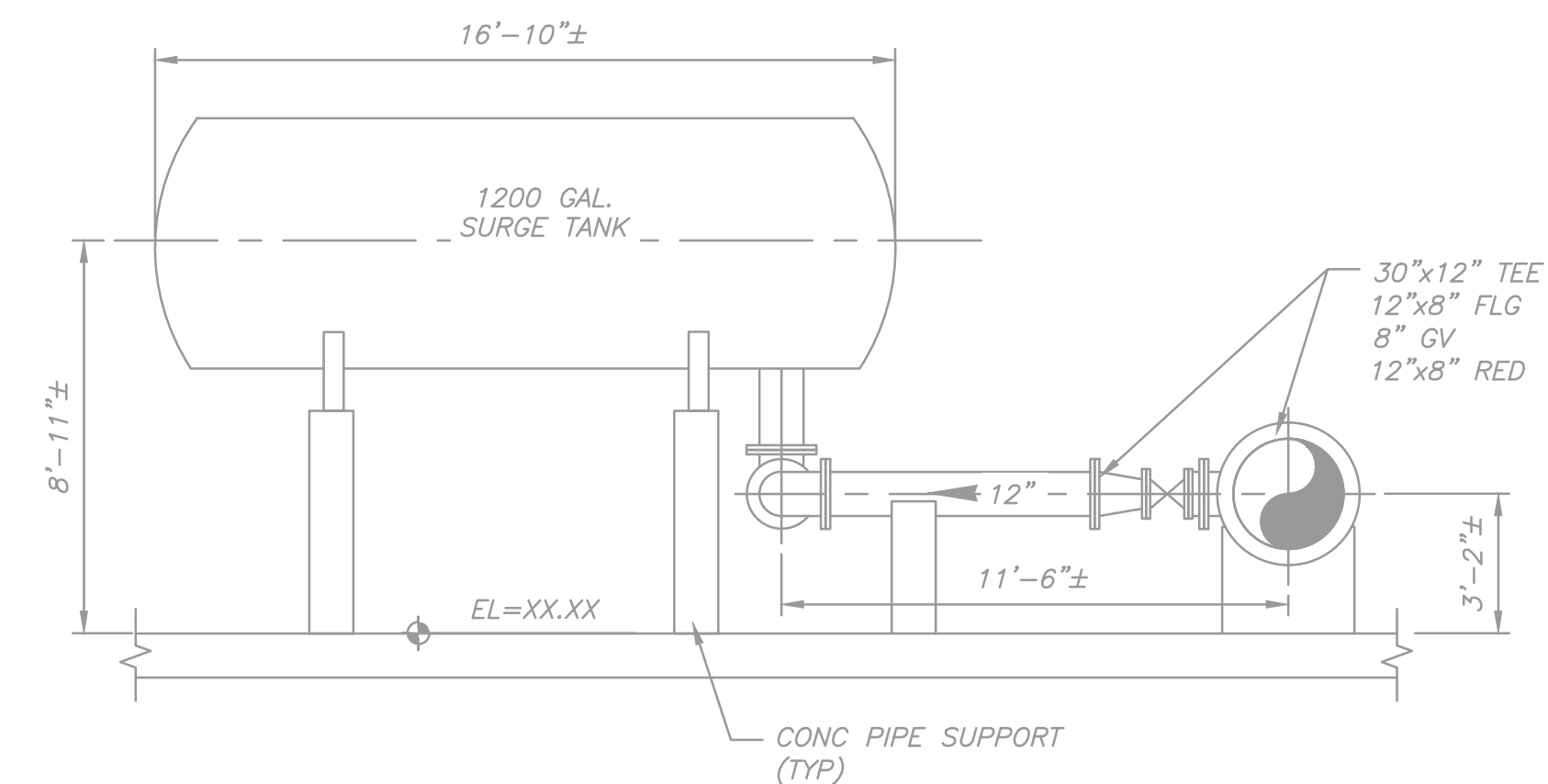
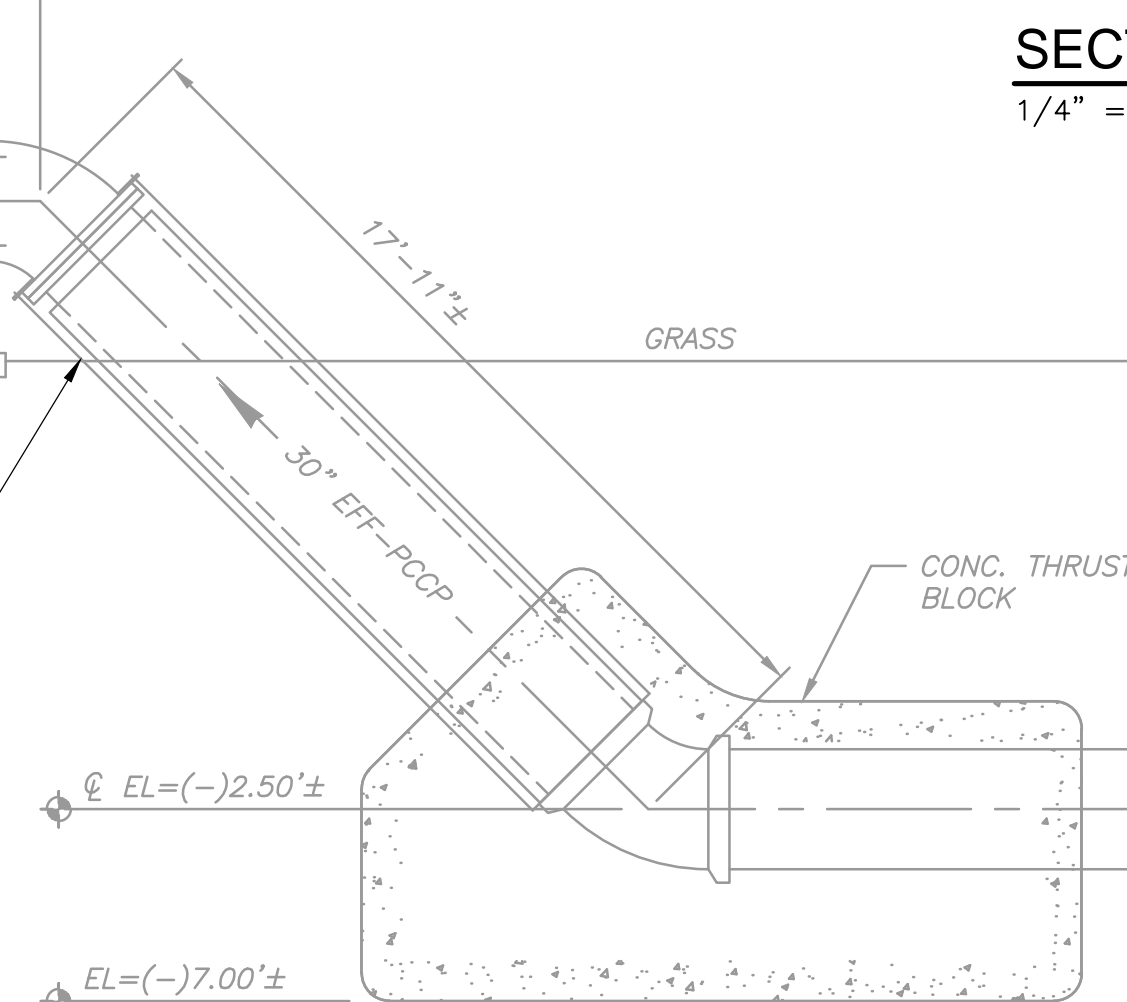
MODIFICATIONS
SECTION 1
1/4" = 1'-0"

FIG-6



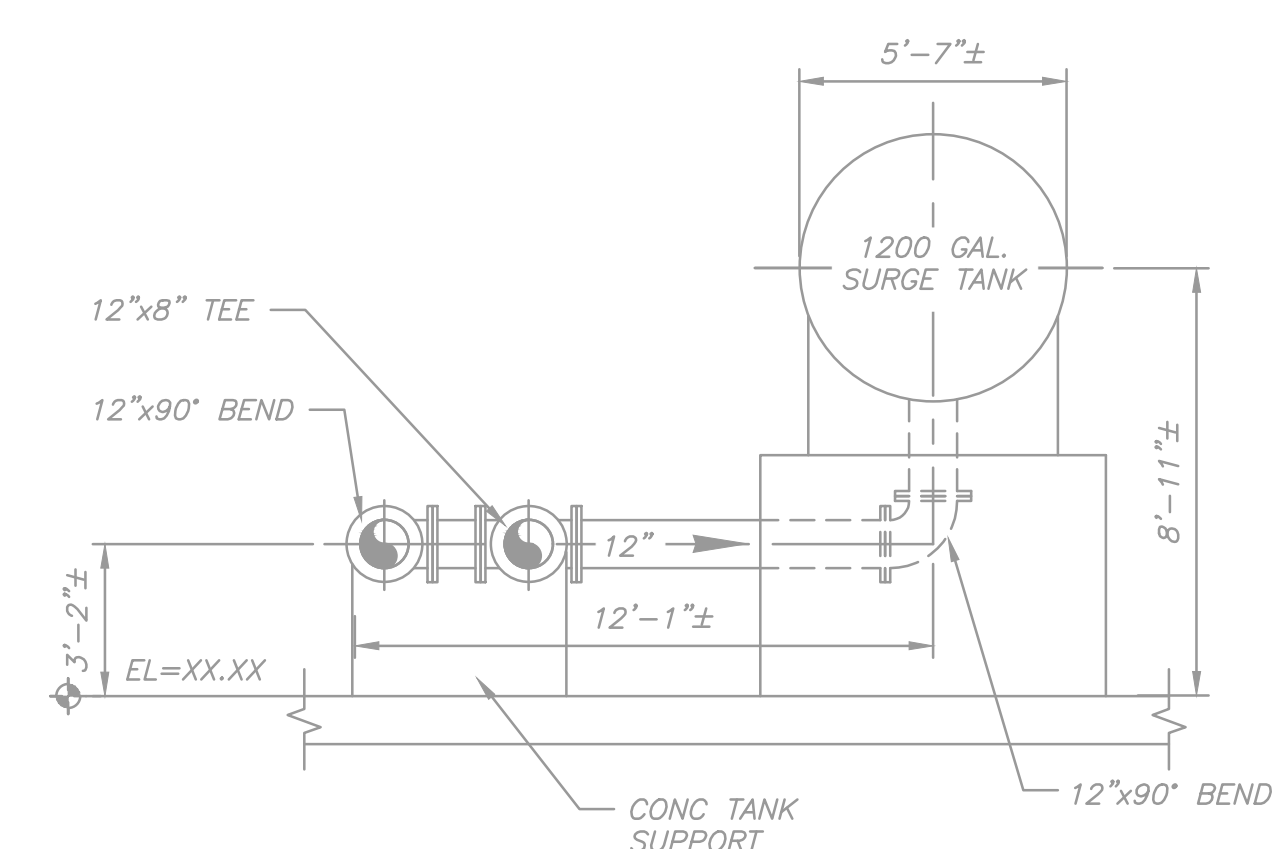
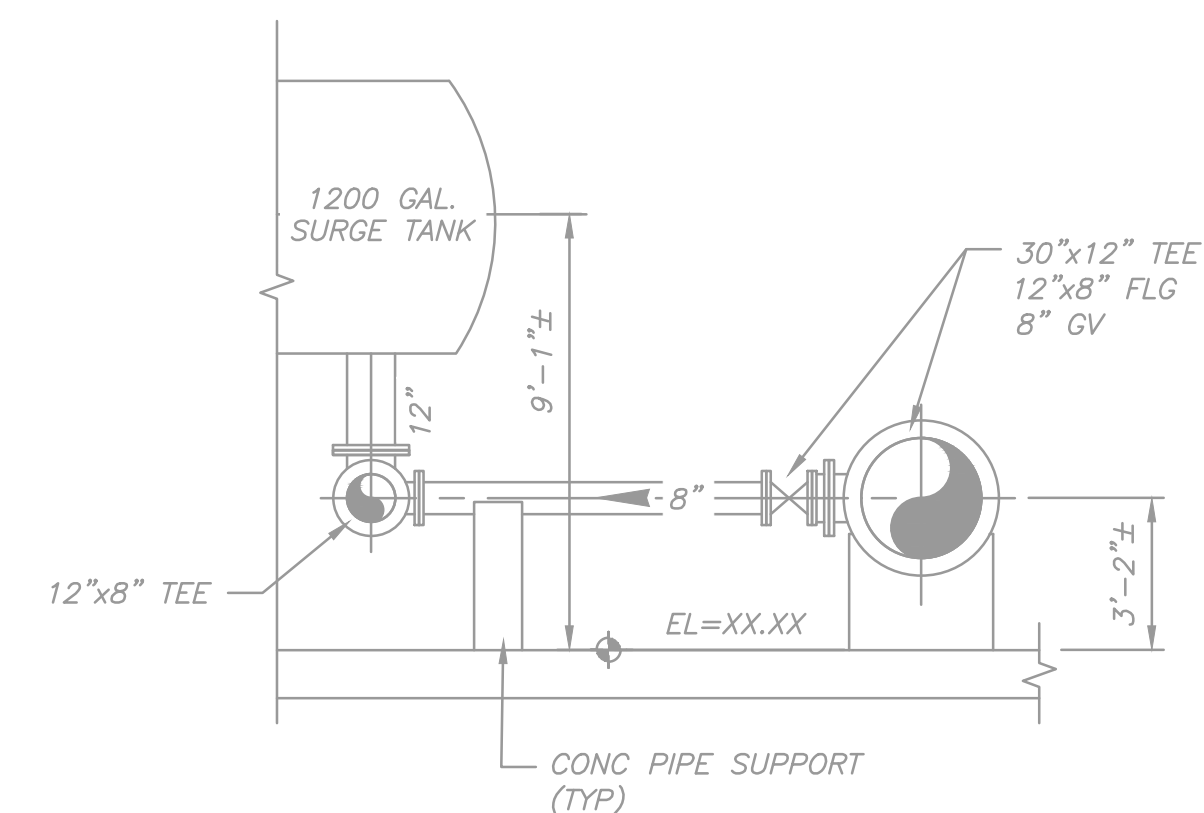
SECTION 4
1/4" = 1'-0"

FIG-6



SECTION 2
1/4" = 1'-0"

FIG-6

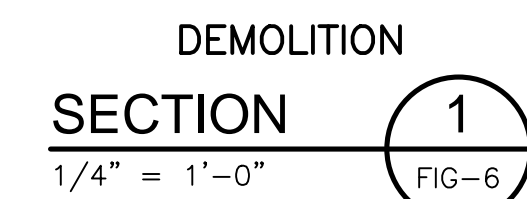


SECTION 3
1/4" = 1'-0"

FIG-6

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Figure No. 9
G.T. Lohmeyer Injection Facility
IW-3 Well Head Sections



- NOTES:
1. CITY TO CLOSE VALVE DURING METER REPLACEMENT.
 2. REPLACE EXISTING NUTS, BOLTS AND GASKETS, WITH NEW #16 STAINLESS STEEL NUTS AND BOLTS AND GASKET WITH GALVANIC PROTECTION. GASKETS FOR 250 PSI WORKING PRESSURE FLANGES SHALL BE 1/8-INCH THICK, RED RUBBER (SBR), HARDNESS 80 (SHORE A), RATED TO 200 DEGREES F, CONFORMING TO ANSI B16.21, AWWA C207, AND ASTM D1330, GRADES 1 AND 2.
 3. PAINT ABOVE GROUND PIPE, FITTINGS, VALVES, AND SURGE TANK. SEE PAINTING SPECIFICATION SECTION FOR SURFACE PREPARATION AND APPLICATION.
 4. PIPE FLANGE SHOULD BE PAINTED BEFORE BOLT AND NUT CONNECTIONS. (STAINLESS STEEL BOLTS AND NUTS NOT TO BE PAINTED).

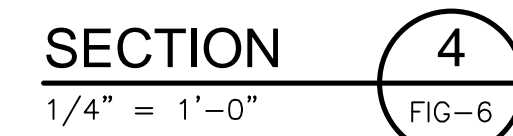
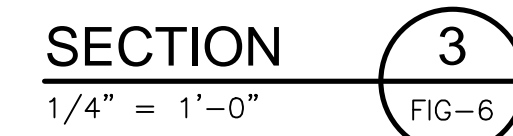
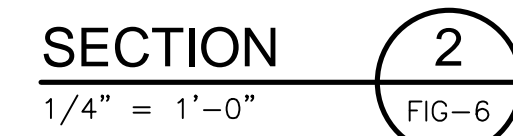
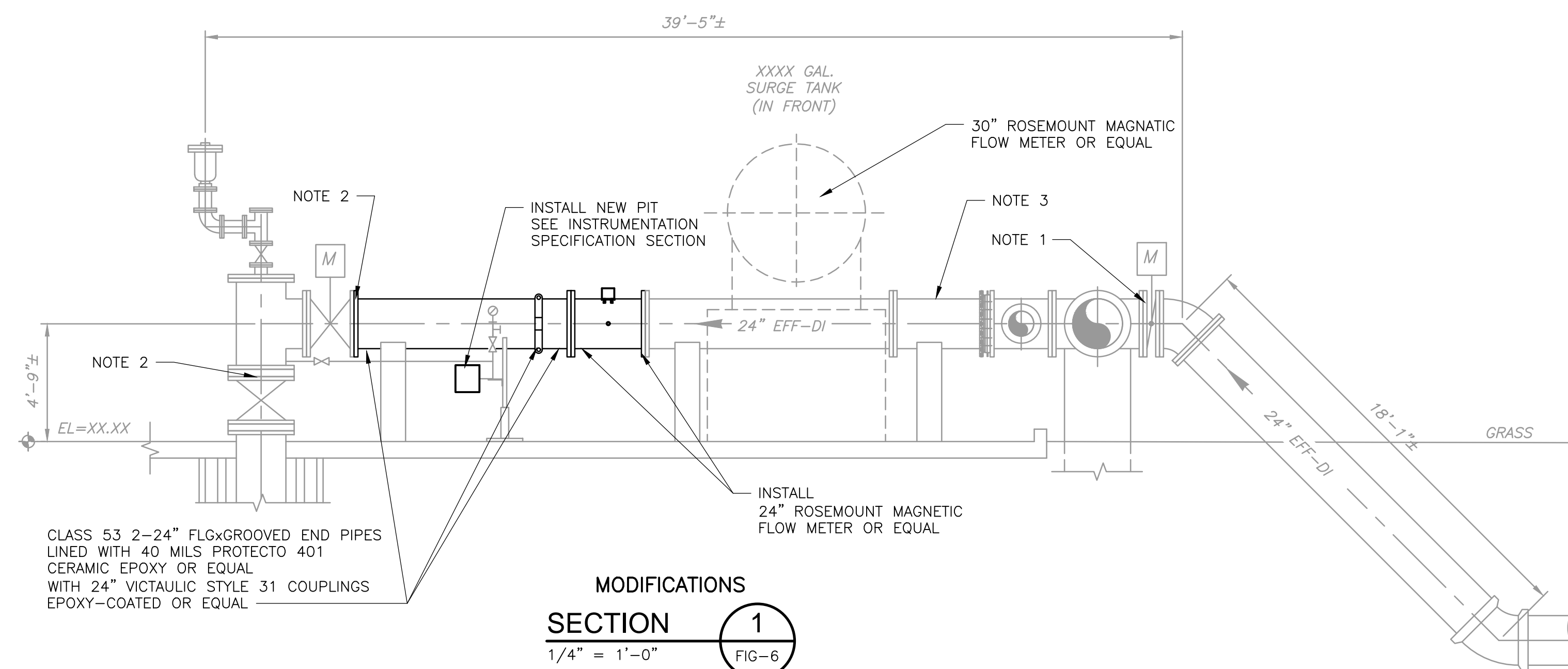


Figure No. 10
G.T. Lohmeyer Injection Facility
IW-4 Well Head Sections

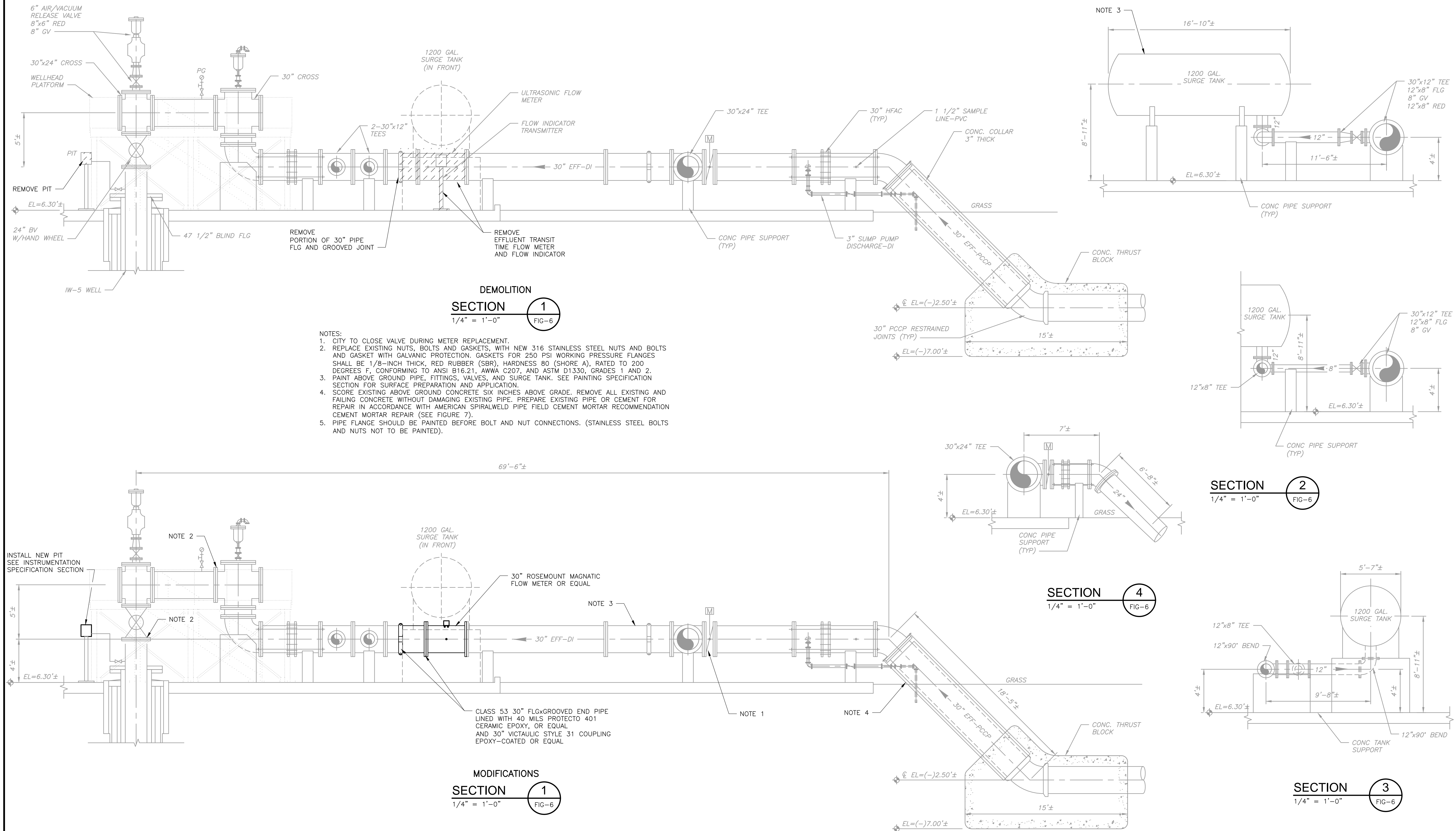
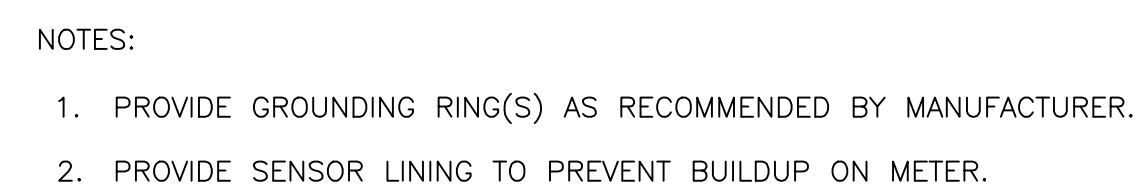


Figure No. 11
G.T. Lohmeyer Injection Facility
IW-5 Well Head Sections

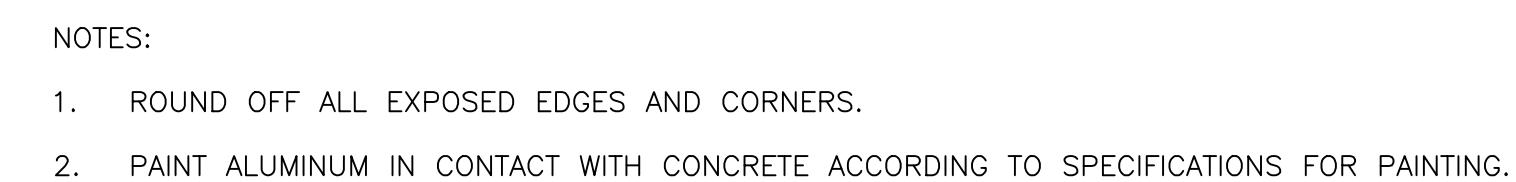


MAGNETIC FLOW METER
DETAIL

NTS

A

-



STANCHION SUPPORT FOR CASE MOUNTED INSTRUMENTS

DETAIL B

NTS

pw:\\pw.cdmsmith.com\\PW_PL1\\Documents\\6017\\233234\\02 Project Information\\03 Data\\30 Reports\\04 Figures\\FIG 13.dwg
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Figure No. 13
 City of Fort Lauderdale
 G.T. Lohmeyer Injection Facility
 Image of Typical Casing Brushing Tool Configuration

Appendix A

MIT PLAN

**UIC Class I Injection Well Brushing and
Mechanical Integrity DRAFT Test Plan**
George T. Lohmeyer Wastewater Treatment Plant
Deep Injection Wells IW-1 through IW-5
FDEP UIC Operation Permit
No. 349274-001-005-UO/1M

City of Fort Lauderdale

2018



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Section 1

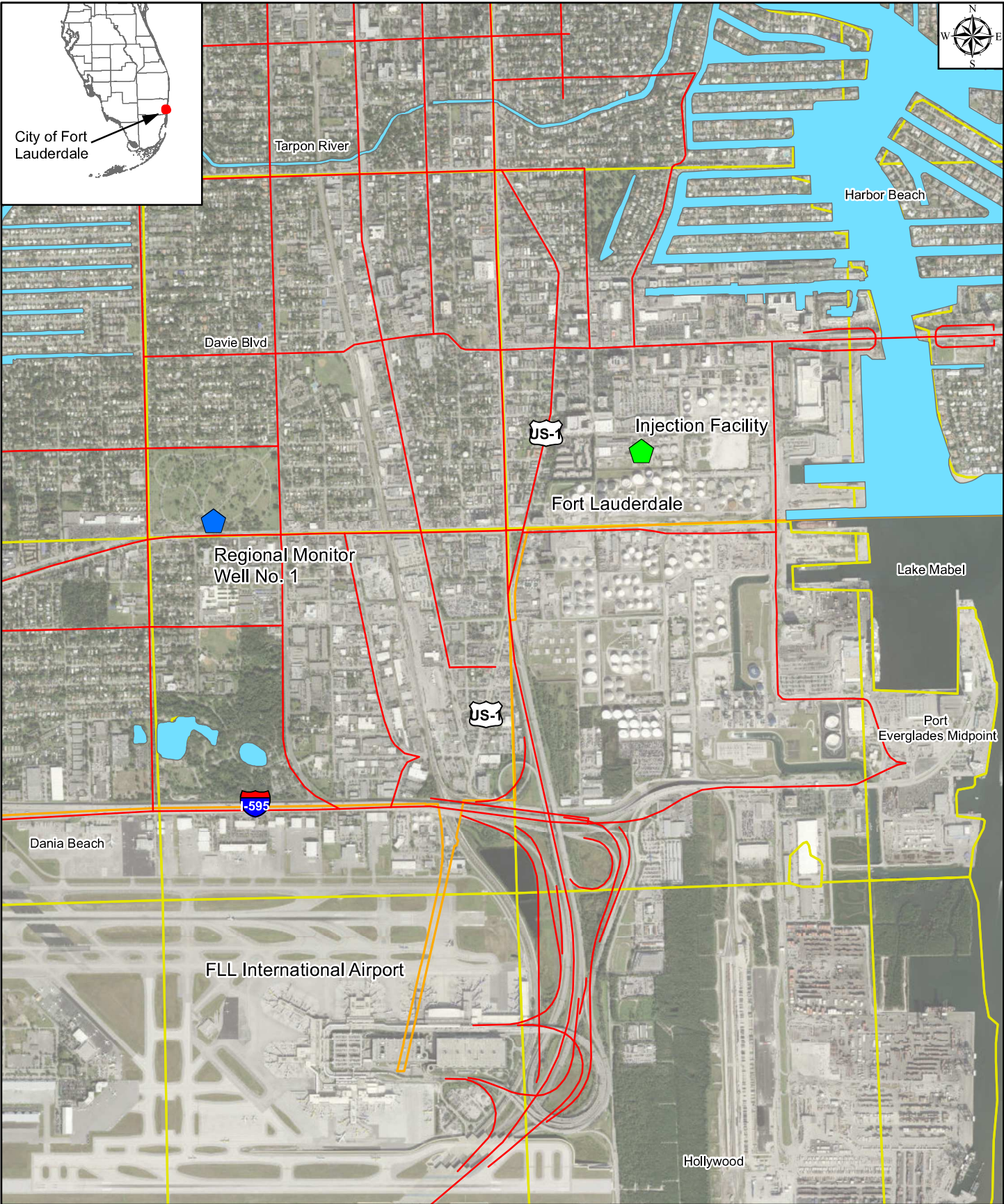
General Conditions

1.1 Introduction

The City of Fort Lauderdale owns and operates five deep injection wells at the George T. Lohmeyer Wastewater Treatment Plant (GTL WWTP). A location map and site plan for the facility are presented in **Figures 1 and 2**, respectively. The GTL WWTP utilizes the deep injection well system for disposal and monitoring of non-hazardous secondary treated effluent generated during the wastewater treatment process. The injection well system consists of five operational deep injection wells (IW-1, IW-2, IW-3, IW-4 and IW-5), each permitted to inject up to a flow rate of 18.7 million gallons per day (MGD). **Figure 3** depicts the construction details of IW-1, IW-2, IW-3, IW-4 and IW-5. Each injection well is cased with a nominal 24-inch diameter 0.5-inch wall steel casing extending to a depth of approximately 2,800 feet below land surface (bls); (2,802, 2,800, 2,801, 2,803 and 2,820 feet bls, respectively). The open hole construction of IW-1, IW-2, and IW-5 extends to a depth of approximately 3,500 feet bls (3,520, 3,517 and 3,461 feet bls, respectively), while IW-3 has an open hole construction to a depth of 4,010 feet bls; IW-4 is constructed to a depth of 3,305 feet bls. There are also three associated dual zone monitoring wells, MW-1, MW-2 and MW-3. The construction details of the three associated dual zone monitor wells are depicted **Figure 4**. The upper monitoring zones of the three wells are between 1,288 and 1,349 feet bls. MW-1 has a lower monitoring zone that is between 1,449 to 1,557 feet bls, this monitors the base of the Underground Source of Drinking Water (USDW). Monitoring wells MW-2 and MW-3 have lower monitoring zones between 1,970 and 2,027 feet bls, which monitor below the USDW. The system also includes a regional monitoring well, RMW-1, located 1.5 miles southwest of the plant. RMW-1 has an upper monitoring interval between 1,300 and 1,339 feet bls, and a lower interval between 1,500 and 1,600 feet bls. Figure 4 also presents the construction details for the regional monitoring well RMW-1.

The existing Department of Environmental Protection (FDEP) underground injection control (UIC) operation permit for all five wells requires that Mechanical Integrity Tests (MIT) shall be demonstrated and completed by the following dates:

Well	MIT Due Date	Previous MIT Completion Date
IW-1	September 9, 2019	November 3, 2014
IW-2	August 26, 2019	October 20, 2014
IW-3	August 14, 2019	October 14, 2014
IW-4	October 28, 2019	November 9, 2014
IW-5	September 18, 2019	October 27, 2014



City of Fort Lauderdale

- Major Roads
- Waterways
- City Limits
- G.T. Lohmeyer Facilities
- Regional Monitor Well 1 for GTL
- Public Land Survey System

0 1,000 2,000 4,000 Feet



Figure 1-1
G.T. Lohmeyer Injection Facility
Site Location

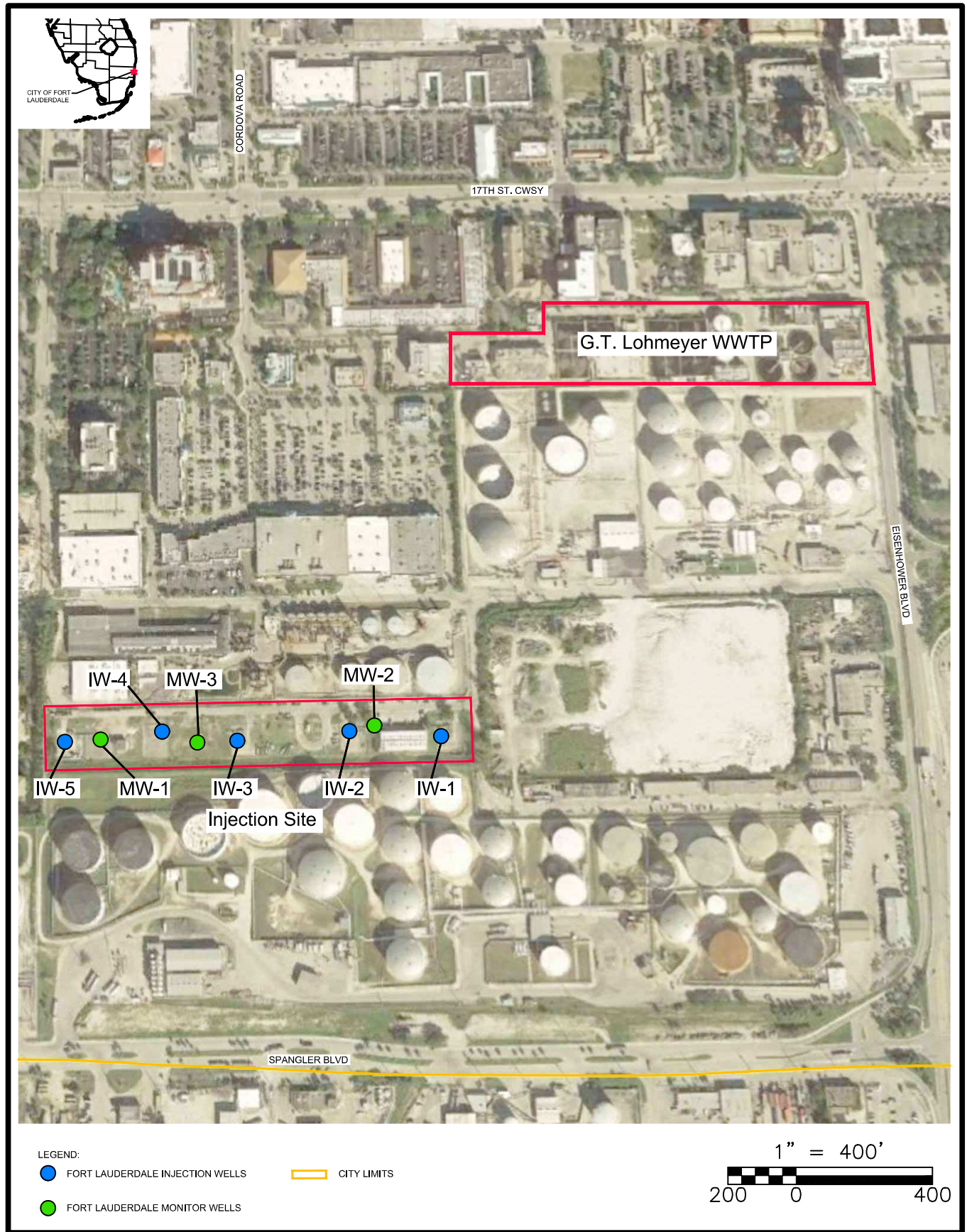
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Exhibit 3

151 of 204

p. 151

pw:\\pw.cdmsmith.com\\PW_PL1\\Documents\\6017\\233234\\02 Project Information\\03 Data\\30 Reports\\04 Figures\\FIG 2.dwg
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Figure 1-2
 City of Fort Lauderdale
 G.T. Lohmeyer Injection Facility
 Site Location Plan

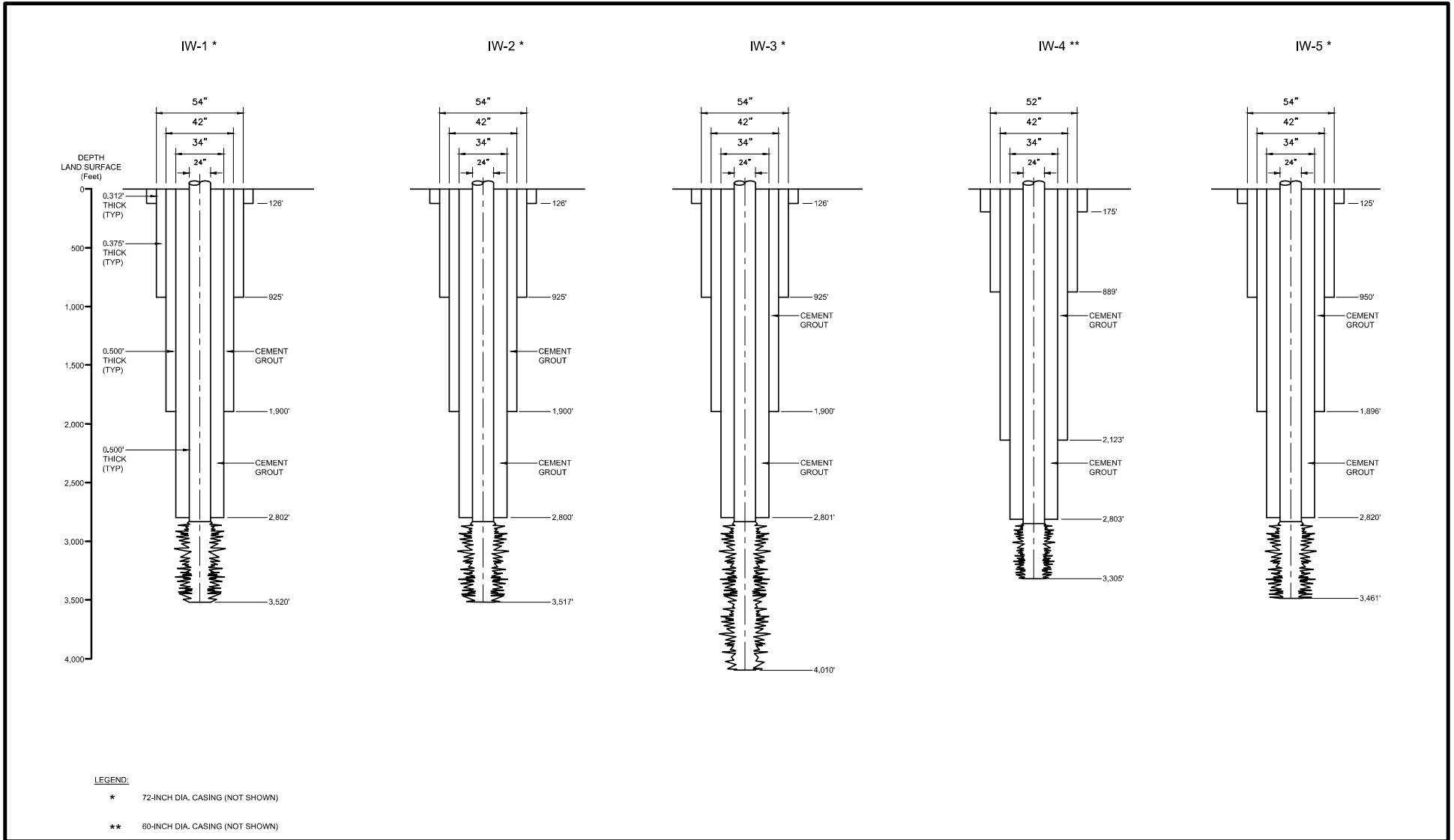


Figure 1-3
 G.T. Lohmeyer Injection Facility
 Injection Well Construction Diagrams

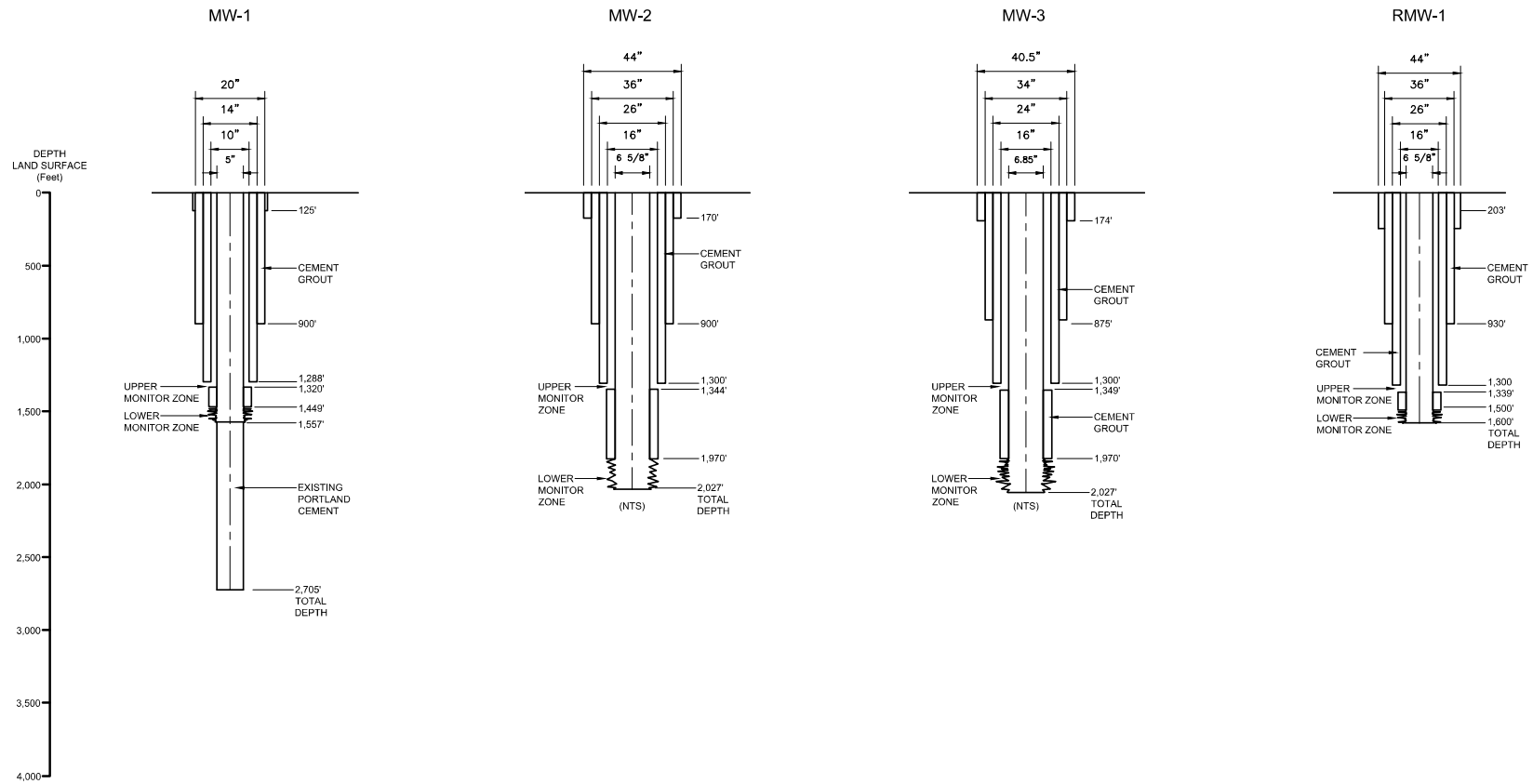


Figure 1-4
 G.T. Lohmeyer Injection Facility
 Monitor Well Construction Diagrams

Section 1 • General Conditions

1.2 MIT General Conditions

Mechanical integrity testing of each Injection Well (IW-1, IW-2, IW-3, IW-4, and IW-5) will be performed to demonstrate that the integrity of the well has not been compromised, there are no leaks in the final injection casing, and that there are no channels or fractures around the bottom of the final injection casing that will permit treated injected effluent to migrate upward through the lowermost confining sequence below the base of the USDW. The tests will be performed during normal working hours (8 a.m. to 5 p.m., Monday through Friday) unless FDEP representative agrees to an alternate schedule. The Engineer will coordinate the testing schedule with FDEP. The following general conditions will be met during the mechanical integrity testing for all five wells:

- The Contractor will provide a spill prevention and response plan and field health and safety plan prior to mobilizing to the project site.
- Pursuant to Permit Paragraph I.B.4, the FDEP's South District Office and designated representative will receive a 72-hour notice prior to the initiation of all tests.
- All flow and pressure measuring devices will be calibrated within 6 months prior to the start of any MIT field activities.
- Calibration certificates will be provided for the test measuring equipment. A copy of the calibration certificate will also be provided to the FDEP representative witnessing the tests in the field. Certified pressure gauges shall be labeled with the certification information so that they may be identified in the field.
- A preliminary pressure test will be conducted prior to notifying FDEP of the time of the casing pressure test.
- Water for the low flow RTS will be provided by an onsite fire hydrant. A check valve and direct on-off valve will be provided for all potable water connections during MIT operations to provide backflow prevention. Contractor will be required to test the check valve prior to beginning the test.
- A description of the MIT and an interpretation of the testing results for each well will be provided in a single report prepared by the Engineer submitted to the FDEP for review and approval following completion of the MITs. A copy of the final MIT report will be maintained on site at the GTL WWTP.
- The report summarizing the MIT results will be certified by a Florida registered professional engineer or professional geologist.

1.3 Work Sequence

The field activities for IW-1 through IW-5 related to completing the brushing and MIT testing requirements shall be conducted in the following general sequence for each well.

- Pre-brushing Specific Injectivity Test

Section 1 • General Conditions

- Take well out of service
- Prepare for pre-brushing video survey
- Video Survey
- Brush casing (See Section 3)
- Pressure Testing
- Post-brushing video survey
- Post-brushing Injectivity Test
- Temperature and background gamma ray logging
- Radioactive Tracer Survey (RTS)
- Restore injection well to service
- Injection Well hardware repairs and replacements (Flowmeter, paint, bolts, gaskets, etc)

1.4 Summary Report

A single report summarizing the results of the mechanical integrity test elements for each well will be prepared and sealed by the Licensed Professional Engineer and/or Professional Geologist. A draft report will be provided to the George T. Lohmeyer Wastewater Treatment Plant and the Project Manager prior to final submittal for review and approval. This report will be submitted to FDEP both Tallahassee and South District offices, with a signed copy sent to the George T. Lohmeyer Wastewater Treatment Plant within 90 days of the completion of testing. The report will contain all data collected during the MIT including tabular presentation/graphical evaluation of monitoring well data over the previous 5-year period, interpretations, conclusions, and recommendations.

Section 2

Mechanical Integrity Test Plan Procedures

2.1 Specific Injectivity Test

Two specific injectivity tests will be performed at each well. The first, to establish specific injectivity before brushing the casing, and the second, to assess the specific injectivity of the well after brushing. The specific injectivity test will be performed by the plant staff according to the standard procedures based on the operations permit.

2.2 Video Survey

Two video surveys will be performed at each well. One to observe the casing before brushing, and the second to confirm the casing has been sufficiently brushed and as part of the Mechanical Integrity Test requirement. The video surveys will be performed according to the following procedure:

- Prior to performing the video survey, the casing will be flushed with at least three casing volumes of potable water or a sufficient volume to ensure a clear image. Refer to **Table 2-1** for estimated casing and total well volumes.

Table 2-1. Casing Depths, Casing Volumes, and Total Well Volumes for IW-1 through IW-5

	Casing			Total		
	Depth	Volume	3x Volume	Depth	Volume	3x Volume
	ft	gal	gal	ft	gal	gal
IW-1	2,801	60,450	181,351	3,520	75,967	227,902
IW-2	2,800	60,429	181,286	3,517	75,903	227,708
IW-3	2,800	60,429	181,286	4,010	86,542	259,627
IW-4	2,804	60,515	181,545	3,305	71,327	213,982
IW-5	2,820	60,860	182,581	3,470	74,888	224,665

- The television camera for the video survey will be equipped with a wide-angle lens and have the capability to obtain both horizontal and vertical views of the well interior.
- Prior to brushing and after brushing of the well, a video survey will be conducted from land surface to the total depth of the injection well. The survey tool will be equipped with an accurate depth counter calibrated at the surface and the bottom of the casing. The logging unit will have sufficient cable to enable the entire well length to be surveyed.
- The video survey shall be conducted at a logging rate that is consistent with providing a good quality video record of conditions encountered within the well. It is anticipated that a logging rate of between 15 and 30 feet per minute (fpm) will meet this requirement. The

Section 2 • Mechanical Integrity Test Plan Procedures

survey tool will be equipped with centralizers and have sufficient lighting to illuminate the well interior to get representative images.

- Any features of the injection well casing which, in the opinion of the Engineer, negatively affects the performance of the well will be inspected using a rotating side-view camera to obtain a close-up of the feature. All issues will be noted and included in the final MIT report.
- The video survey will be recorded on digital video disc or USB flash drive.

2.3 Pressure Testing

Pressure testing for each well will follow the procedure below:

- The well will be killed using brine for density control if the hydraulic head of the well is above land surface.
- An inflatable packer will be installed to a competent part of the casing supported by cement, at a target depth of 20 feet from the bottom of the injection casing.
- A calibrated pressure gauge with a minimum range of 0.0 to 300.0 psi (accurate to +/- 0.5 percent) will be installed on the injection well wellhead. Based on previous mechanical integrity tests performed on the injection well system, the test pressure will be at an approximately 200 psi with no more than a 5 percent change from the initial test pressure for a successful test to be achieved.
- The well and all equipment lines will be completely filled with water from the fire hydrant identified by the City before pressurizing the casing.
- Any air which may have been introduced to the system will be bled off to ensure that the injection tubing is completely filled with water.
- Prior to the FDEP visit to witness the pressure test, the Contractor will perform the preliminary pressure test. The preliminary pressure test will follow all the steps listed below but will only be witnessed by the Engineer and County.
- Per the regulations in Section 62-528.300(6)(e) FAC, the injection casing pressure will be monitored for 60 minutes, with an initial pressure reading and the test will be considered acceptable if a pressure change of 5 percent or less occurs during the 60-minute monitoring period of the pressure test.
- However, if a leak is detected by the pressure test, the contingency plan will be to first check that the packer is functioning properly.
- If it is determined that the packer is fully operational, the packer will be moved up in 25-foot increments, reset, and the packer test performed until no leak is detected.
- If the casing pressure test fails after moving the packer upwards twice within 100 feet of the bottom of the casing, the suspected leakage will be investigated further by reviewing

Section 2 • Mechanical Integrity Test Plan Procedures

the well video and determining what the proper technical approach is for remedying the pressure test and achieving a successful result.

- Water from the injection casing will be released into a five-gallon bucket until the pressure is zero psi. The total volume released will be measured and recorded as part of the pressure test. The Contractor will coordinate with the City on where the water released from the casing is disposed of.
- The inflatable packer will be removed from the well and the weighted material will be flushed. It is anticipated that three casing volumes of treated effluent for each injection well should be adequate to remove the weighted material and establish buoyancy similar to operating conditions. Refer to Table 1 for casing and total well volumes.

2.4 Temperature Log

The Temperature logging for each well will follow the procedure below:

- Prior to injecting fluids for the RTS, a static temperature log will be conducted. Prior to the temperature log, a minimum of 12 hours will transpire with the well in a static condition.
- The log will be conducted from pad level and end at the bottom of the injection zone.
- The temperature logging tool will be accurately calibrated, and the presentation will include both gradient and differential temperature measurements.

2.5 Radioactive Tracer Survey (RTS)

The RTS survey will be performed for each well according to the following procedure. **Figure 5** shows a diagram of a typical radioactive tracer tool assembly.

- Prior to conducting the RTS, a radiation officer will perform a background Geiger counter survey of site.
- A certification or receipt for the Iodine -131 will be present during the RTS and copies will be provided to the Engineer and FDEP representative onsite.
- Prior to logging, the well must be shut in a minimum of 12 hours. A background gamma ray and casing collar locator log (CCL) will be conducted from total depth of each well to land surface prior to loading the RTS tool with iodine-131. The gamma ray tool will be the scintillator type. The CCL shall be used during each logging run. The background gamma ray log should be printed on all the RTS logs run up or down the injection well during the RTS testing.
- The RTS tool will be loaded with a minimum of 4 mCi of medicinal grade iodine-131.

Dynamic Test No. 1

- Positioning the ejector port 5 feet above the base of the final injection casing.

Section 2 • Mechanical Integrity Test Plan Procedures

- Establish an injection velocity between 3 and 5 feet per minute (not to exceed 108 gpm). Flow rate will not exceed 5 feet per minute. A calibrated flow meter will be used to measure the flow rate during RTS testing. Flow will be regulated by opening the valve on the water supply until the desired flow rate is obtained. The flow rate will be checked periodically during testing to verify that a consistent flow rate is maintained throughout testing.
- Eject 1 mCi of iodine-131. Monitor gamma ray activity in time drive mode for 1 hour while the tool is held stationary.
 - In the event of detection of tracer by the upper detector during time-drive logging, the tool should not be moved prior to the time period required for the tracer to travel from the middle detector to the lower detector (theoretically 2 minutes for a 5 foot/minute flow rate). If tracer movement behind the casing is suspected, logging out of position will occur and the RTS tool will be raised approximately 20 feet above the previous position and time-drive logging will resume at the new tool location.
 - The tool will be raised again approximately 20 feet if continued movement of tracer is detected. This should enable the tracer slug to be followed as it moves up hole and keep the upper gamma ray detector from being stained.
- A log out of position shall be run for a minimum of 200 feet above the highest point at which tracer is detected.
- Flushing between the RTS and logging after the flushing is only mandatory if there is an adverse casing stain. In the event of a casing stain, the well will be flushed with a minimum volume of 65,000 gallons of treated effluent or until tracer staining is reduced to a level that will not interfere with interpretation of the test data. Following the flush, the ejector port will be repositioned 5 feet above the base of casing and a repeat gamma log after flush will be conducted to at least 200 feet above the highest point at which tracer is detected.
- If tracer movement due to external channeling is detected, multiple logs out of position will be conducted to identify the extent of tracer movement. Each log out of position will be conducted to at least 200 feet above the top of the tracer slug.
- If no upward movement of the tracer is indicated by the gamma log comparisons, proceed to the second dynamic phase of the RTS.

Dynamic Test No. 2

- The ejector port will be repositioned 5 feet above the base of casing. Flow rate will be re-established to an injection velocity between 3 and 5 feet per minute (not to exceed 108 gpm). Flow rate will not exceed 5 feet per minute.
- Eject 1 mCi of iodine-131. Gamma ray activity will be monitored for 30 minutes while the tool is held stationary.
- A log out of position shall be run a minimum of 200 feet above the highest point at which tracer is detected.

Section 2 • Mechanical Integrity Test Plan Procedures

- After completion of the final log out of position, injecting into the well shall continue while, lowering the ejector port at least 100 feet below the base of the casing (into a cavernous zone) and then eject all remaining tracer from the RTS tool and flush with 3 to 5 volumes of effluent.
- A final gamma ray log will be performed from total depth of the well to land surface to confirm that tracer has been dispensed from the well casing.
- Additional RTS tests will be performed should logging responses suggests additional testing is necessary. The need for additional tests will be determined in the field and will be based on logging response and field discussions with the FDEP representative witnessing the RTS and the Engineer's representative.
- The RTS tool will be removed from the well and a final Geiger survey of the site will be performed to ensure no remaining radiological materials.
- All results will be logged and recorded for inclusion in the final report.
- The injection wellhead and all ancillary equipment will be reinstalled.
- The injection well will be brought back on line in coordination with plant personnel.
- Unforeseen field conditions and logging responses may require modification to the overall procedures of the RTS. Any field modifications will require the concurrence of the FDEP representative.

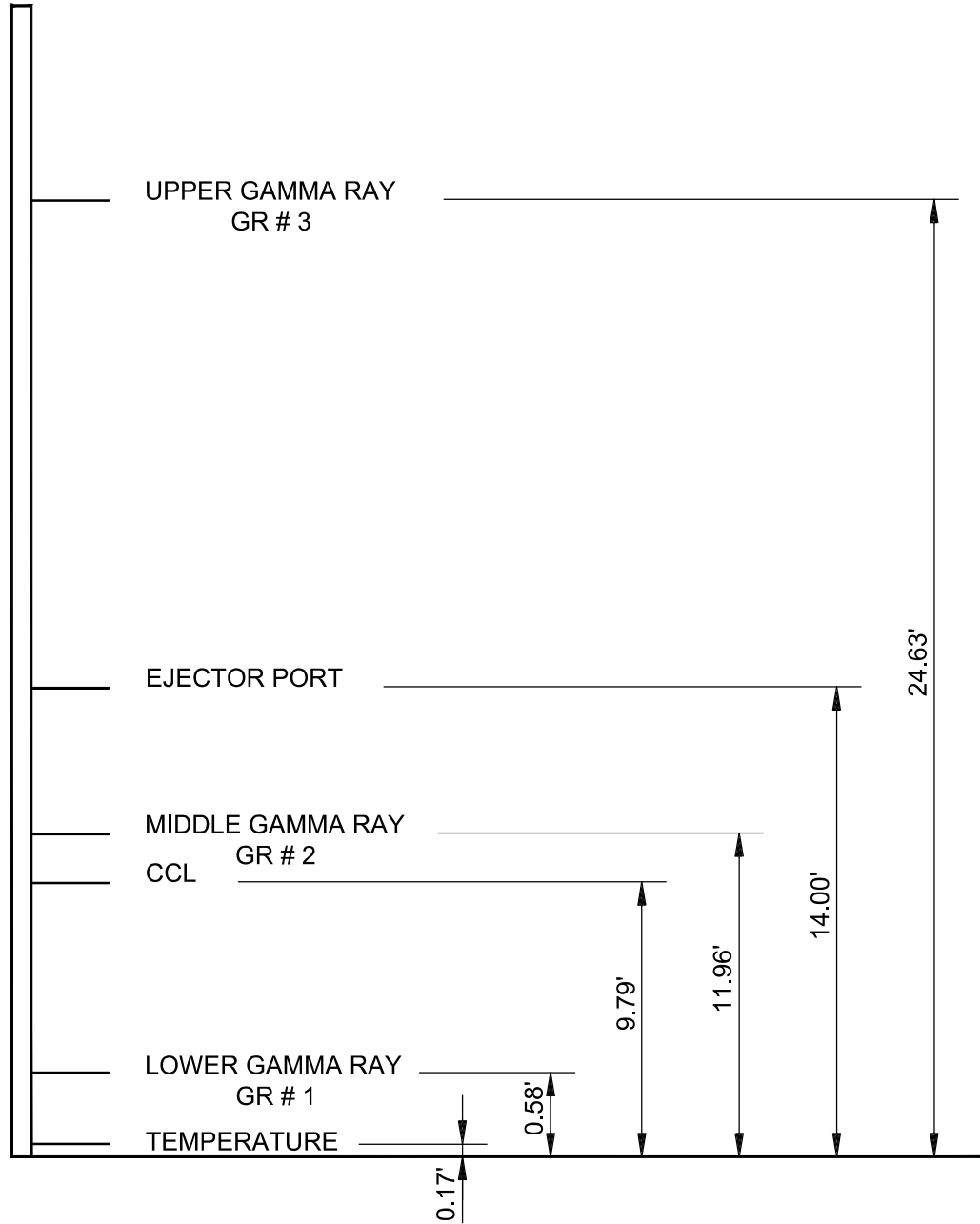
2.6 Injection Well System Maintenance

Following the standard MIT procedures as described herein, the contractor shall perform flowmeter replacement, force main repairs, and other maintenance replacements at each injection well site. The contractor will be performing the following additional services after the completion of MIT testing at each well:

- Replacement of flanged hardware at the wellheads (nuts/bolts/gaskets).
- Repair the concrete collars around each effluent pipe.
- Paint above ground piping and surge tanks.
- Replace effluent transit time flow meters on each well with Rosemount Magnetic flow meters.

Further details for this work are provided in the Specifications for G.T. Lohmeyer Mechanical Integrity Testing of Deep Injection Wells and Associated Services at 1000 SE 21 Street, Fort Lauderdale, Florida, City of Fort Lauderdale Project Number 12469.

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Figure 2-1
 City of Fort Lauderdale
 G.T. Lohmeyer Injection Facility
 Radioactive Tracer Tool Diagram

Section 3

Brushing Plan

The brushing of each injection casing wall will be the first activity performed during the 2019 Mechanical Integrity Test (MIT) at each well. Well brushing of the injection wells will be performed during normal working hours (8 a.m. to 5 p.m., Monday through Friday). CDM Smith will provide resident oversight during all work at the injection wells.

3.1 Objectives and Purpose

Since the GTL WWTP injection wells are utilized for disposal, and treated effluent is injected through the wellhead down the casing and in to the formation, encrustation of material on the casing is to be expected. As part of scheduled injection well system maintenance in 2014 done during the last Mechanical Integrity Tests (MIT), each injection well's interior was brushed, and the well acidized. The outcome from these maintenance activities was an improvement in system specific injectivity. To determine the current status of system performance, monitoring data from post treatment in 2014 to 2018 were reviewed. Specific injectivity trends for each well were noted as declining. As the next scheduled MIT is in 2019, the City has the objective of improving hydraulic conditions of the injection casing wall by utilizing a well brushing tool by cleaning its interior. Brushing will also facilitate the visualization of the casing condition during the MIT video survey and obtain a better seal between the inflatable packer element and the casing wall during the MIT casing pressure tests. Performing this maintenance during the MIT phase will make the most efficient of resources as the work can be done when each well is out of service for the testing phase.

3.2 Equipment and Material Requirements

- The tool outside diameter shall be sufficient to contact the interior casing surface (diameter of approximately 23 inches) during brushing. The brushing tool must be a minimum of 20 feet long with bristles end to end. Contractor shall submit drawings of the proposed tool to the engineer for review prior to utilization.

3.3 Brushing Procedures

The casing brushing will be integrated into the planned 5-year MIT effort at each well. The brushing requirements shall be conducted in the following general sequence:

- The Owner will perform a pretest specific injectivity test of the well prior to contractor mobilization to the wellsite.
- Prepare well by pumping clear water and conduct a downhole video survey to record pre-brushing conditions.
- Brushing procedures will be preceded by a well kill and removal of the injection well head.

Section 3 • Brushing Plan

- Reconfigure and install a temporary injection wellhead to accommodate brushing, brush rotation, and divert flows to temporary onsite storage and settling tanks using a closed system.
- The brush will be fabricated of steel bristles that will contact the sides of the casing to remove encrustation that has accumulated during effluent injection.
- The tool must have the ability to be rotated 360 degrees and slowly lowered (maximum of 10 feet per minute) down to brush the entire length of the casing in each well. Two round trip passes shall be performed from the top of the casing to the casing bottom and back to the surface.
- The contractor shall air develop (or pump out fluid) after well brushing activities to remove the solids from the cleaning operation. The wellhead shall divert developed water using a closed system to onsite temporary storage tanks to allow particulate material to settle out. Flowrate shall be a minimum of 100 feet per minute uphole velocity or be sufficient to lift scrapings out of the well based on the contractor's calculations. After settling of particulates in the temporary storage tanks, the development water shall be pumped to the treatment plant headworks through the plant's backwash system located at each injection well pad.
- After airlifting is complete, the injection well shall be brought alive allowing it to backflow of one (1) casing volume. (Approximately 60,000 gallons). Discharge water shall be pumped into onsite temporary storage tanks and then to the existing well pad back-flush line to the headworks of the plant.
- After flowing back one casing volume the well shall be shut in and a downhole well video shall be run from the top to the bottom of the casing.
- Following the post-brushing well video, the injection well will be killed to allow for the removal of the rotating head and flow diverter device. The Contractor will prepare and proceed with the casing pressure test and rest of the MIT activities as referenced in the approved MIT plan for Injection Well System as described in Sections 1 and 2.
- Procedures for maintaining disposal capacity utilized during brushing activities are outlined in the well systems Operations and Maintenance Manual (on file with FDEP).



**CITY OF FORT LAUDERDALE
GENERAL CONDITIONS**

These instructions are standard for all contracts for commodities or services issued through the City of Fort Lauderdale Procurement Services Division. The City may delete, supersede, or modify any of these standard instructions for a particular contract by indicating such change in the Invitation to Bid (ITB) Special Conditions, Technical Specifications, Instructions, Proposal Pages, Addenda, and Legal Advertisement. In this general conditions document, Invitation to Bid (ITB), Request for Qualifications (RFQ), and Request for Proposal (RFP) are interchangeable.

PART I BIDDER PROPOSAL PAGE(S) CONDITIONS:

- 1.01 BIDDER ADDRESS:** The City maintains automated vendor address lists that have been generated for each specific Commodity Class item through our bid issuing service, BidSync. Notices of Invitations to Bid (ITB'S) are sent by e-mail to the selection of bidders who have fully registered with BidSync or faxed (if applicable) to every vendor on those lists, who may then view the bid documents online. Bidders who have been informed of a bid's availability in any other manner are responsible for registering with BidSync in order to view the bid documents. There is no fee for doing so. If you wish bid notifications be provided to another e-mail address or fax, please contact BidSync. If you wish purchase orders sent to a different address, please so indicate in your bid response. If you wish payments sent to a different address, please so indicate on your invoice.
- 1.02 DELIVERY:** Time will be of the essence for any orders placed as a result of this ITB. The City reserves the right to cancel any orders, or part thereof, without obligation if delivery is not made in accordance with the schedule specified by the Bidder and accepted by the City.
- 1.03 PACKING SLIPS:** It will be the responsibility of the awarded Contractor, to attach all packing slips to the OUTSIDE of each shipment. Packing slips must provide a detailed description of what is to be received and reference the City of Fort Lauderdale purchase order number that is associated with the shipment. Failure to provide a detailed packing slip attached to the outside of shipment may result in refusal of shipment at Contractor's expense.
- 1.04 PAYMENT TERMS AND CASH DISCOUNTS:** Payment terms, unless otherwise stated in this ITB, will be considered to be net 45 days after the date of satisfactory delivery at the place of acceptance and receipt of correct invoice at the office specified, whichever occurs last. Bidder may offer cash discounts for prompt payment but they will not be considered in determination of award. If a Bidder offers a discount, it is understood that the discount time will be computed from the date of satisfactory delivery, at the place of acceptance, and receipt of correct invoice, at the office specified, whichever occurs last.
- 1.05 TOTAL BID DISCOUNT:** If Bidder offers a discount for award of all items listed in the bid, such discount shall be deducted from the total of the firm net unit prices bid and shall be considered in tabulation and award of bid.
- 1.06 BIDS FIRM FOR ACCEPTANCE:** Bidder warrants, by virtue of bidding, that the bid and the prices quoted in the bid will be firm for acceptance by the City for a period of one hundred twenty (120) days from the date of bid opening unless otherwise stated in the ITB.
- 1.07 VARIANCES:** For purposes of bid evaluation, Bidder's must indicate any variances, no matter how slight, from ITB General Conditions, Special Conditions, Specifications or Addenda in the space provided in the ITB. No variations or exceptions by a Bidder will be considered or deemed a part of the bid submitted unless such variances or exceptions are listed in the bid and referenced in the space provided on the bidder proposal pages. If variances are not stated, or referenced as required, it will be assumed that the product or service fully complies with the City's terms, conditions, and specifications.
- By receiving a bid, City does not necessarily accept any variances contained in the bid. All variances submitted are subject to review and approval by the City. If any bid contains material variances that, in the City's sole opinion, make that bid conditional in nature, the City reserves the right to reject the bid or part of the bid that is declared, by the City as conditional.
- 1.08 NO BIDS:** If you do not intend to bid please indicate the reason, such as insufficient time to respond, do not offer product or service, unable to meet specifications, schedule would not permit, or any other reason, in the space provided in this ITB. Failure to bid or return no bid comments prior to the bid due and opening date and time, indicated in this ITB, may result in your firm being deleted from our Bidder's registration list for the Commodity Class Item requested in this ITB.

- 1.09 MINORITY AND WOMEN BUSINESS ENTERPRISE PARTICIPATION AND BUSINESS DEFINITIONS:** The City of Fort Lauderdale wants to increase the participation of Minority Business Enterprises (MBE), Women Business Enterprises (WBE), and Small Business Enterprises (SBE) in its procurement activities. If your firm qualifies in accordance with the below definitions please indicate in the space provided in this ITB.

Minority Business Enterprise (MBE) “A Minority Business” is a business enterprise that is owned or controlled by one or more socially or economically disadvantaged persons. Such disadvantage may arise from cultural, racial, chronic economic circumstances or background or other similar cause. Such persons include, but are not limited to: Blacks, Hispanics, Asian Americans, and Native Americans.

The term “Minority Business Enterprise” means a business at least 51 percent of which is owned by minority group members or, in the case of a publicly owned business, at least 51 percent of the stock of which is owned by minority group members. For the purpose of the preceding sentence, minority group members are citizens of the United States who include, but are not limited to: Blacks, Hispanics, Asian Americans, and Native Americans.

Women Business Enterprise (WBE) a “Women Owned or Controlled Business” is a business enterprise at least 51 percent of which is owned by females or, in the case of a publicly owned business, at least 51 percent of the stock of which is owned by females.

Small Business Enterprise (SBE) “Small Business” means a corporation, partnership, sole proprietorship, or other legal entity formed for the purpose of making a profit, which is independently owned and operated, has either fewer than 100 employees or less than \$1,000,000 in annual gross receipts.

BLACK, which includes persons having origins in any of the Black racial groups of Africa.

WHITE, which includes persons whose origins are Anglo-Saxon and Europeans and persons of Indo-European decent including Pakistani and East Indian.

HISPANIC, which includes persons of Mexican, Puerto Rican, Cuban, Central and South American, or other Spanish culture or origin, regardless of race.

NATIVE AMERICAN, which includes persons whose origins are American Indians, Eskimos, Aleuts, or Native Hawaiians.

ASIAN AMERICAN, which includes persons having origin in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.

1.10 MINORITY-WOMEN BUSINESS ENTERPRISE PARTICIPATION

It is the desire of the City of Fort Lauderdale to increase the participation of minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the City does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms. Proposers are requested to include in their proposals a narrative describing their past accomplishments and intended actions in this area. If proposers are considering minority or women owned enterprise participation in their proposal, those firms, and their specific duties have to be identified in the proposal. If a proposer is considered for award, he or she will be asked to meet with City staff so that the intended MBE/WBE participation can be formalized and included in the subsequent contract.

1.11 SCRUTINIZED COMPANIES

Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed*, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the “Cuba Amendment,” the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), that it is not engaged in a boycott of Israel, and that it does not have business operations in Cuba or Syria, as provided in section 287.135, Florida Statutes (2018), as may be amended or revised. The City may terminate this Agreement at the City’s option if the Contractor is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2018), as may be amended or revised, or 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 the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), or is engaged in a boycott of Israel or has been engaged in business operations

in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2018), as may be amended or revised.

1.12 DEBARRED OR SUSPENDED BIDDERS OR PROPOSERS

The bidder or proposer certifies, by submission of a response to this solicitation, that neither it nor its principals and subcontractors are presently debarred or suspended by any Federal department or agency.

Part II DEFINITIONS/ORDER OF PRECEDENCE:

2.01 BIDDING DEFINITIONS The City will use the following definitions in its general conditions, special conditions, technical specifications, instructions to bidders, addenda and any other document used in the bidding process:

INVITATION TO BID (ITB) The solicitation document used for soliciting competitive sealed bids for goods or services.

INVITATION TO NEGOTIATE (ITN) All solicitation documents, regardless of medium, whether attached to or incorporated by reference in solicitations for responses from firms that invite proposals from interested and qualified firms so the city may enter into negotiations with the firm(s) determined most capable of providing the required goods or services.

REQUEST FOR PROPOSALS (RFP) A solicitation method used for soliciting competitive sealed proposals to determine the best value among proposals for goods or services for which price may not be the prevailing factor in award of the contract, or the scope of work, specifications or contract terms and conditions may be difficult to define. Such solicitation will consider the qualifications of the proposers along with evaluation of each proposal using identified and generally weighted evaluation criteria. RFPs may include price criteria whenever feasible, at the discretion of the city.

REQUEST FOR QUALIFICATIONS (RFQ) A solicitation method used for requesting statements of qualifications in order to determine the most qualified proposer for professional services.

BID – a price and terms quote received in response to an ITB.

PROPOSAL – a proposal received in response to an RFP.

BIDDER – Person or firm submitting a Bid.

PROPOSER – Person or firm submitting a Proposal.

RESPONSIVE BIDDER – A firm who has submitted a bid, offer, quote, or response which conforms in all material respects to the competitive solicitation document and all of its requirements.

RESPONSIBLE BIDDER – A firm who is fully capable of meeting all requirements of the solicitation and subsequent contract. The respondent must possess the full capability, including financial and technical, ability, business judgment, experience, qualifications, facilities, equipment, integrity, capability, and reliability, in all respects to perform fully the contract requirements and assure good faith performance as determined by the city.

FIRST RANKED PROPOSER – That Proposer, responding to a City RFP, whose Proposal is deemed by the City, the most advantageous to the City after applying the evaluation criteria contained in the RFP.

SELLER – Successful Bidder or Proposer who is awarded a Purchase Order or Contract to provide goods or services to the City.

CONTRACTOR – Any firm having a contract with the city. Also referred to as a "Vendor".

CONTRACT – All types of agreements, including purchase orders, for procurement of supplies, services, and construction, regardless of what these agreements may be called.

CONSULTANT – A firm providing professional services for the city.

2.02 SPECIAL CONDITIONS: Any and all Special Conditions contained in this ITB that may be in variance or conflict with these General Conditions shall have precedence over these General Conditions. If no changes or deletions to General Conditions are made in the Special Conditions, then the General Conditions shall prevail in their entirety,

PART III BIDDING AND AWARD PROCEDURES:

3.01 SUBMISSION AND RECEIPT OF BIDS: To receive consideration, bids must be received prior to the bid opening date and time. Unless otherwise specified, Bidders should use the proposal forms provided by the City. These forms may be duplicated, but failure to use the forms may cause the bid to be rejected. Any erasures or corrections on the bid must be made in ink and initialed by Bidder in ink. All information submitted by the Bidder shall be printed, typewritten or filled in with pen and ink. Bids shall be signed in ink. Separate bids must be submitted for each ITB issued by the City in separate sealed envelopes properly marked. When a particular ITB or RFP requires multiple copies of bids or proposals they may be included in a single envelope or package properly sealed and identified. Only send bids via facsimile transmission (FAX) if the ITB specifically states that bids sent via FAX will be considered. If such a statement is not included in the ITB, bids sent via FAX will be rejected. Bids will be publicly opened in the Procurement Office, or other designated area, in the presence of Bidders, the public, and City staff. Bidders and the public are invited and encouraged to attend bid

openings. Bids will be tabulated and made available for review by Bidder's and the public in accordance with applicable regulations.

- 3.02 MODEL NUMBER CORRECTIONS:** If the model number for the make specified in this ITB is incorrect, or no longer available and replaced with an updated model with new specifications, the Bidder shall enter the correct model number on the bidder proposal page. In the case of an updated model with new specifications, Bidder shall provide adequate information to allow the City to determine if the model bid meets the City's requirements.
- 3.03 PRICES QUOTED:** Deduct trade discounts, and quote firm net prices. Give both unit price and extended total. In the case of a discrepancy in computing the amount of the bid, the unit price quoted will govern. All prices quoted shall be F.O.B. destination, freight prepaid (Bidder pays and bears freight charges, Bidder owns goods in transit and files any claims), unless otherwise stated in Special Conditions. Each item must be bid separately. No attempt shall be made to tie any item or items contained in the ITB with any other business with the City.
- 3.04 TAXES:** The City of Fort Lauderdale is exempt from Federal Excise and Florida Sales taxes on direct purchase of tangible property. Exemption **number for EIN is 59-6000319, and State Sales tax exemption number is 85-8013875578C-1.**
- 3.05 WARRANTIES OF USAGE:** Any quantities listed in this ITB as estimated or projected are provided for tabulation and information purposes only. No warranty or guarantee of quantities is given or implied. It is understood that the Contractor will furnish the City's needs as they arise.
- 3.06 APPROVED EQUAL:** When the technical specifications call for a brand name, manufacturer, make, model, or vendor catalog number with acceptance of APPROVED EQUAL, it shall be for the purpose of establishing a level of quality and features desired and acceptable to the City. In such cases, the City will be receptive to any unit that would be considered by qualified City personnel as an approved equal. In that the specified make and model represent a level of quality and features desired by the City, the Bidder must state clearly in the bid any variance from those specifications. It is the Bidder's responsibility to provide adequate information, in the bid, to enable the City to ensure that the bid meets the required criteria. If adequate information is not submitted with the bid, it may be rejected. The City will be the sole judge in determining if the item bid qualifies as an approved equal.
- 3.07 MINIMUM AND MANDATORY TECHNICAL SPECIFICATIONS:** The technical specifications may include items that are considered minimum, mandatory, or required. If any Bidder is unable to meet or exceed these items, and feels that the technical specifications are overly restrictive, the bidder must notify the Procurement Services Division immediately. Such notification must be received by the Procurement Services Division prior to the deadline contained in the ITB, for questions of a material nature, or prior to five (5) days before bid due and open date, whichever occurs first. If no such notification is received prior to that deadline, the City will consider the technical specifications to be acceptable to all bidders.
- 3.08 MISTAKES:** Bidders are cautioned to examine all terms, conditions, specifications, drawings, exhibits, addenda, delivery instructions and special conditions pertaining to the ITB. Failure of the Bidder to examine all pertinent documents shall not entitle the bidder to any relief from the conditions imposed in the contract.
- 3.09 SAMPLES AND DEMONSTRATIONS:** Samples or inspection of product may be requested to determine suitability. Unless otherwise specified in Special Conditions, samples shall be requested after the date of bid opening, and if requested should be received by the City within seven (7) working days of request. Samples, when requested, must be furnished free of expense to the City and if not used in testing or destroyed, will upon request of the Bidder, be returned within thirty (30) days of bid award at Bidder's expense. When required, the City may request full demonstrations of units prior to award. When such demonstrations are requested, the Bidder shall respond promptly and arrange a demonstration at a convenient location. Failure to provide samples or demonstrations as specified by the City may result in rejection of a bid.
- 3.10 LIFE CYCLE COSTING:** If so specified in the ITB, the City may elect to evaluate equipment proposed on the basis of total cost of ownership. In using Life Cycle Costing, factors such as the following may be considered: estimated useful life, maintenance costs, cost of supplies, labor intensity, energy usage, environmental impact, and residual value. The City reserves the right to use those or other applicable criteria, in its sole opinion that will most accurately estimate total cost of use and ownership.
- 3.11 BIDDING ITEMS WITH RECYCLED CONTENT:** In addressing environmental concerns, the City of Fort Lauderdale encourages Bidders to submit bids or alternate bids containing items with recycled content. When submitting bids containing items with recycled content, Bidder shall provide documentation adequate for the City to verify the recycled content. The City prefers packaging consisting of materials that are degradable or able to be recycled. When specifically stated in the ITB, the City may give preference to bids containing items

manufactured with recycled material or packaging that is able to be recycled.

- 3.12 USE OF OTHER GOVERNMENTAL CONTRACTS:** The City reserves the right to reject any part or all of any bids received and utilize other available governmental contracts, if such action is in its best interest.
- 3.13 QUALIFICATIONS/INSPECTION:** Bids will only be considered from firms normally engaged in providing the types of commodities/services specified herein. The City reserves the right to inspect the Bidder's facilities, equipment, personnel, and organization at any time, or to take any other action necessary to determine Bidder's ability to perform. The Procurement Director reserves the right to reject bids where evidence or evaluation is determined to indicate inability to perform.
- 3.14 BID SURETY:** If Special Conditions require a bid security, it shall be submitted in the amount stated. A bid security can be in the form of a bid bond or cashier's check. Bid security will be returned to the unsuccessful bidders as soon as practicable after opening of bids. Bid security will be returned to the successful bidder after acceptance of the performance bond, if required; acceptance of insurance coverage, if required; and full execution of contract documents, if required; or conditions as stated in Special Conditions.
- 3.15 PUBLIC RECORDS/TRADE SECRETS/COPYRIGHT:** The Proposer's response to the RFP is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this RFP and the Contract to be executed for this RFP, subject to the provisions of Chapter 119.07 of the Florida Statutes.

Any language contained in the Proposer's response to the RFP purporting to require confidentiality of any portion of the Proposer's response to the RFP, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City which the Proposer claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Proposer shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer's response to the RFP constitutes a Trade Secret. The city's determination of whether an exemption applies shall be final, and the proposer agrees to defend, indemnify, and hold harmless the city and the city's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the city's treatment of records as public records. Proposals purporting to be subject to copyright protection in full or in part will be rejected.

EXCEPT FOR CLEARLY MARKED PORTIONS THAT ARE BONA FIDE TRADE SECRETS PURSUANT TO FLORIDA LAW, DO NOT MARK YOUR RESPONSE TO THE RFP AS PROPRIETARY OR CONFIDENTIAL. DO NOT MARK YOUR RESPONSE TO THE RFP OR ANY PART THEREOF AS COPYRIGHTED.

- 3.16 PROHIBITION OF INTEREST:** No contract will be awarded to a bidding firm who has City elected officials, officers or employees affiliated with it, unless the bidding firm has fully complied with current Florida State Statutes and City Ordinances relating to this issue. Bidders must disclose any such affiliation. Failure to disclose any such affiliation will result in disqualification of the Bidder and removal of the Bidder from the City's bidder lists and prohibition from engaging in any business with the City.
- 3.17 RESERVATIONS FOR AWARD AND REJECTION OF BIDS:** The City reserves the right to accept or reject any or all bids, part of bids, and to waive minor irregularities or variations to specifications contained in bids, and minor irregularities in the bidding process. The City also reserves the right to award the contract on a split order basis, lump sum basis, individual item basis, or such combination as shall best serve the interest of the City. The City reserves the right to make an award to the responsive and responsible bidder whose product or service meets the terms, conditions, and specifications of the ITB and whose bid is considered to best serve the City's interest. In determining the responsiveness of the offer and the responsibility of the Bidder, the following shall be considered when applicable: the ability, capacity and skill of the Bidder to perform as required; whether the Bidder can perform promptly, or within the time specified, without delay or interference; the character, integrity, reputation, judgment, experience and efficiency of the Bidder; the quality of past performance by the Bidder; the previous and existing compliance by the Bidder with related laws and ordinances; the sufficiency of the Bidder's financial resources; the availability, quality and adaptability of the Bidder's supplies or services to the required use; the ability of the Bidder to provide future maintenance, service or parts; the number and scope of conditions attached to the bid.

If the ITB provides for a contract trial period, the City reserves the right, in the event the selected bidder does not perform satisfactorily, to award a trial period to the next ranked bidder or to award a contract to the next ranked bidder, if that bidder has successfully provided services to the City in the past. This procedure to

continue until a bidder is selected or the contract is re-bid, at the sole option of the City.

3.18 LEGAL REQUIREMENTS: Applicable provisions of all federal, state, county laws, and local ordinances, rules and regulations, shall govern development, submittal and evaluation of all bids received in response hereto and shall govern any and all claims and disputes which may arise between person(s) submitting a bid response hereto and the City by and through its officers, employees and authorized representatives, or any other person, natural or otherwise; and lack of knowledge by any bidder shall not constitute a cognizable defense against the legal effect thereof.

3.19 BID PROTEST PROCEDURE: ANY PROPOSER OR BIDDER WHO IS NOT RECOMMENDED FOR AWARD OF A CONTRACT AND WHO ALLEGES A FAILURE BY THE CITY TO FOLLOW THE CITY'S PROCUREMENT ORDINANCE OR ANY APPLICABLE LAW MAY PROTEST TO THE CHIEF PROCUREMENT OFFICER, BY DELIVERING A LETTER OF PROTEST TO THE DIRECTOR OF FINANCE WITHIN FIVE (5) DAYS AFTER A NOTICE OF INTENT TO AWARD IS POSTED ON THE CITY'S WEB SITE AT THE FOLLOWING LINK:
<https://www.fortlauderdale.gov/departments/finance/procurement-services/notices-of-intent-to-award>
THE COMPLETE PROTEST ORDINANCE MAY BE FOUND ON THE CITY'S WEB SITE AT THE FOLLOWING LINK: https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2AD_ARTVFI_DIV2PR_S2-182DIREPR

PART IV BONDS AND INSURANCE

4.01 PERFORMANCE BOND: If a performance bond is required in Special Conditions, the Contractor shall within fifteen (15) working days after notification of award, furnish to the City a Performance Bond, payable to the City of Fort Lauderdale, Florida, in the face amount specified in Special Conditions as surety for faithful performance under the terms and conditions of the contract. If the bond is on an annual coverage basis, renewal for each succeeding year shall be submitted to the City thirty (30) days prior to the termination date of the existing Performance Bond. The Performance Bond must be executed by a surety company of recognized standing, authorized to do business in the State of Florida and having a resident agent.

Acknowledgement and agreement is given by both parties that the amount herein set for the Performance Bond is not intended to be nor shall be deemed to be in the nature of liquidated damages nor is it intended to limit the liability of the Contractor to the City in the event of a material breach of this Agreement by the Contractor.

4.02 INSURANCE: If the Contractor is required to go on to City property to perform work or services as a result of ITB award, the Contractor shall assume full responsibility and expense to obtain all necessary insurance as required by City or specified in Special Conditions.

The Contractor shall provide to the Procurement Services Division original certificates of coverage and receive notification of approval of those certificates by the City's Risk Manager prior to engaging in any activities under this contract. The Contractor's insurance is subject to the approval of the City's Risk Manager. The certificates must list the City as an ADDITIONAL INSURED for General Liability Insurance, and shall have no less than thirty (30) days written notice of cancellation or material change. Further modification of the insurance requirements may be made at the sole discretion of the City's Risk Manager if circumstances change or adequate protection of the City is not presented. Bidder, by submitting the bid, agrees to abide by such modifications.

PART V PURCHASE ORDER AND CONTRACT TERMS:

- 5.01 COMPLIANCE TO SPECIFICATIONS, LATE DELIVERIES/PENALTIES:** Items offered may be tested for compliance to bid specifications. Items delivered which do not conform to bid specifications may be rejected and returned at Contractor's expense. Any violation resulting in contract termination for cause or delivery of items not conforming to specifications, or late delivery may also result in:
- Bidders name being removed from the City's bidder's mailing list for a specified period and Bidder will not be recommended for any award during that period.
 - All City Departments being advised to refrain from doing business with the Bidder.
 - All other remedies in law or equity.
- 5.02 ACCEPTANCE, CONDITION, AND PACKAGING:** The material delivered in response to ITB award shall remain the property of the Seller until a physical inspection is made and the material accepted to the satisfaction of the City. The material must comply fully with the terms of the ITB, be of the required quality, new, and the latest model. All containers shall be suitable for storage and shipment by common carrier, and all prices shall include standard commercial packaging. The City will not accept substitutes of any kind. Any substitutes or material not meeting specifications will be returned at the Bidder's expense. Payment will be made only after City receipt and acceptance of materials or services.
- 5.03 SAFETY STANDARDS:** All manufactured items and fabricated assemblies shall comply with applicable requirements of the Occupation Safety and Health Act of 1970 as amended, and be in compliance with Chapter 442, Florida Statutes. Any toxic substance listed in Section 38F-41.03 of the Florida Administrative Code delivered as a result of this order must be accompanied by a completed Safety Data Sheet (SDS).
- 5.04 ASBESTOS STATEMENT:** All material supplied must be 100% asbestos free. Bidder, by virtue of bidding, certifies that if awarded any portion of the ITB the bidder will supply only material or equipment that is 100% asbestos free.
- 5.05 OTHER GOVERNMENTAL ENTITIES:** If the Bidder is awarded a contract as a result of this ITB, the bidder may, if the bidder has sufficient capacity or quantities available, provide to other governmental agencies, so requesting, the products or services awarded in accordance with the terms and conditions of the ITB and resulting contract. Prices shall be F.O.B. delivered to the requesting agency.
- 5.06 VERBAL INSTRUCTIONS PROCEDURE:** No negotiations, decisions, or actions shall be initiated or executed by the Contractor as a result of any discussions with any City employee. Only those communications which are in writing from an authorized City representative may be considered. Only written communications from Contractors, which are assigned by a person designated as authorized to bind the Contractor, will be recognized by the City as duly authorized expressions on behalf of Contractors.
- 5.07 INDEPENDENT CONTRACTOR:** The Contractor is an independent contractor under this Agreement. Personal services provided by the Proposer shall be by employees of the Contractor and subject to supervision by the Contractor, and not as officers, employees, or agents of the City. Personnel policies, tax responsibilities, social security, health insurance, employee benefits, procurement policies unless otherwise stated in this ITB, and other similar administrative procedures applicable to services rendered under this contract shall be those of the Contractor.
- 5.08 INDEMNITY/HOLD HARMLESS AGREEMENT:** The Contractor agrees to protect, defend, indemnify, and hold harmless the City of Fort Lauderdale and its officers, employees and agents from and against any and all losses, penalties, damages, settlements, claims, costs, charges for other expenses, or liabilities of every and any kind including attorney's fees, in connection with or arising directly or indirectly out of the work agreed to or performed by Contractor under the terms of any agreement that may arise due to the bidding process. Without limiting the foregoing, any and all such claims, suits, or other actions relating to personal injury, death, damage to property, defects in materials or workmanship, actual or alleged violations of any applicable Statute, ordinance, administrative order, rule or regulation, or decree of any court shall be included in the indemnity hereunder.
- 5.09 TERMINATION FOR CAUSE:** If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner its obligations under this Agreement, or if the Contractor shall violate any of the provisions of this Agreement, the City may upon written notice to the Contractor terminate the right of the Contractor to proceed under this Agreement, or with such part or parts of the Agreement as to which there has been default, and may hold the Contractor liable for any damages caused to the City by reason of such default and termination. In the event of such termination, any completed services performed by the Contractor under this Agreement shall, at the option of the City, become the City's property and the Contractor shall be entitled to receive equitable

compensation for any work completed to the satisfaction of the City. The Contractor, however, shall not be relieved of liability to the City for damages sustained by the City by reason of any breach of the Agreement by the Contractor, and the City may withhold any payments to the Contractor for the purpose of setoff until such time as the amount of damages due to the City from the Contractor can be determined.

- 5.10 TERMINATION FOR CONVENIENCE:** The City reserves the right, in its best interest as determined by the City, to cancel contract by giving written notice to the Contractor thirty (30) days prior to the effective date of such cancellation.
- 5.11 CANCELLATION FOR UNAPPROPRIATED FUNDS:** The obligation of the City for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of the contract into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.
- 5.12 RECORDS/AUDIT:** The Contractor shall maintain during the term of the contract all books of account, reports and records in accordance with generally accepted accounting practices and standards for records directly related to this contract. The Contractor agrees to make available to the City Auditor or designee, during normal business hours and in Broward, Miami-Dade or Palm Beach Counties, all books of account, reports and records relating to this contract should be retained for the duration of the contract and for three years after the final payment under this Agreement, or until all pending audits, investigations or litigation matters relating to the contract are closed, whichever is later.
- 5.13 PERMITS, TAXES, LICENSES:** The successful Contractor shall, at their own expense, obtain all necessary permits, pay all licenses, fees and taxes, required to comply with all local ordinances, state and federal laws, rules and regulations applicable to business to be carried out under this contract.
- 5.14 LAWS/ORDINANCES:** The Contractor shall observe and comply with all Federal, state, local and municipal laws, ordinances rules and regulations that would apply to this contract.
- 5.15 NON-DISCRIMINATION:** There shall be no discrimination as to race, sex, color, creed, age or national origin in the operations conducted under this contract. The following applies to contracts with values over \$100,000: The Contractor certifies and represents that it will comply with Section 2-187, Code of Ordinances of the City of Fort Lauderdale, Florida, ("Section 2-187"), by not discriminating against the Contractor's employees based on the employee's race, color, religion, gender (including identity or expression), marital status, sexual orientation, national origin, age, disability or any other protected classification as defined by applicable law, during the entire term of the contract that arises out of this ITB. The failure of the Contractor to comply with Section 2-187 shall be deemed to be a material breach of the contract, entitling the City to pursue any of the following remedies or any remedy provided under applicable law: (a) The City may terminate the contract if the Contractor fails to comply with Section 2-187; and (b) The City may retain all monies due or to become due until the Contractor complies with Section 2-187; and (c) The Contractor may be subject to debarment or suspension proceedings consistent with the procedures in Section 2-183, Code of Ordinances of the City of Fort Lauderdale, Florida.
- 5.16 UNUSUAL CIRCUMSTANCES:** If during a contract term where costs to the City are to remain firm or adjustments are restricted by a percentage or CPI cap, unusual circumstances that could not have been foreseen by either party of the contract occur, and those circumstances significantly affect the Contractor's cost in providing the required prior items or services, then the Contractor may request adjustments to the costs to the City to reflect the changed circumstances. The circumstances must be beyond the control of the Contractor, and the requested adjustments must be fully documented. The City may, after examination, refuse to accept the adjusted costs if they are not properly documented, increases are considered to be excessive, or decreases are considered to be insufficient. In the event the City does not wish to accept the adjusted costs and the matter cannot be resolved to the satisfaction of the City, the City will reserve the following options:
1. The contract can be canceled by the City upon giving thirty (30) days written notice to the Contractor with no penalty to the City or Contractor. The Contractor shall fill all City requirements submitted to the Contractor until the termination date contained in the notice.
 2. The City requires the Contractor to continue to provide the items and services at the firm fixed (non-adjusted) cost until the termination of the contract term then in effect.
 3. If the City, in its interest and in its sole opinion, determines that the Contractor in a capricious manner attempted to use this section of the contract to relieve them of a legitimate obligation under the contract, and no unusual circumstances had occurred, the City reserves the right to take any and all action under law or equity. Such action shall include, but not be limited to, declaring the Contractor in default and disqualifying him for receiving any business from the City for a stated period of time.

If the City does agree to adjusted costs, these adjusted costs shall not be invoiced to the City until the Contractor receives notice in writing signed by a person authorized to bind the City in such matters.

- 5.17 ELIGIBILITY:** If applicable, the Contractor must first register with the Department of State of the State of Florida, in accordance with Florida State Statutes, prior to entering into a contract with the City.
- 5.18 PATENTS AND ROYALTIES:** The Contractor, without exception, shall indemnify and save harmless the City and its employees from liability of any nature and kind, including cost and expenses for or on account of any copyrighted, patented or un-patented invention, process, or article manufactured or used in the performance of the contract, including its use by the City. If the Contractor uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the bid prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work.
- 5.19 ASSIGNMENT:** Contractor shall not transfer or assign the performance required by this ITB without the prior written consent of the City. Any award issued pursuant to this ITB, and the monies, which may become due hereunder, are not assignable except with the prior written approval of the City Commission or the City Manager or City Manager's designee, depending on original award approval.
- 5.20 LITIGATION VENUE:** The parties waive the privilege of venue and agree that all litigation between them in the state courts shall take place in Broward County, Florida and that all litigation between them in the federal courts shall take place in the Southern District in and for the State of Florida.
- 5.21 LOCATION OF UNDERGROUND FACILITIES:** If the Contractor, for the purpose of responding to this solicitation, requests the location of underground facilities through the Sunshine State One-Call of Florida, Inc. notification system or through any person or entity providing a facility locating service, and underground facilities are marked with paint, stakes or other markings within the City pursuant to such a request, then the Contractor, shall be deemed non-responsive to this solicitation in accordance with Section 2-184(5) of the City of Fort Lauderdale Code of Ordinances.
- 5.22 PUBLIC RECORDS**

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 954-828-5002, CITY CLERK'S OFFICE, 100 N. ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA 33301, PRRCONTRACT@FORTLAUDERDALE.GOV.

Contractor shall:

1. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
2. Upon request from the City's custodian of public records, provide the City 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 (2018), as may be amended or revised, 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 term and following completion of this contract if the Contractor does not transfer the records to the City.
4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Contract, 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 this Contract, the Contractor shall meet

all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT

MINORITY BUSINESS ENTERPRISE (MBE) - WOMEN BUSINESS ENTERPRISE (WBE)

PRIME CONTRACTOR IDENTIFICATION FORM

In order to assist us in identifying the status of those companies doing business with the City of Fort Lauderdale, this form must be completed and returned with your bid package.

Name of Firm:	<input type="text"/>
Address of Firm:	<input type="text"/>
Telephone Number:	<input type="text"/>
Name of Person Completing Form:	<input type="text"/>
Title:	<input type="text"/>
Signature:	<input type="text"/>
Date:	<input type="text"/>
City Project Number:	<input type="text"/>
City Project Description:	<input type="text"/>

Please check the item(s) which properly identify the status of your firm:

- ☐ Our firm is not a MBE or WBE.
- ☐ Our firm is a MBE, as at least 51 percent is owned and operated by one or more socially and economically disadvantaged individuals.
- ☐ American Indian ☐ Asian ☐ Black ☐ Hispanic
- ☐ Our firm is a WBE, as at least 51 percent is owned and operated by one or more women.
- ☐ American Indian ☐ Asian ☐ Black ☐ Hispanic

MBE/WBE CONTRACTOR INFORMATION

The City, in a continuing effort, is encouraging the increased participation of minority and women-owned businesses in Public Works Department related contracts. Along those lines, we are requiring that each firm provide documentation detailing their own programs for utilizing minority and women-owned businesses.

Submit this information as a part of this bid package and refer to the checklist, to ensure that all areas of concern are covered. The low responsive bidder may be contacted to schedule a meeting to discuss these objectives. It is our intention to proceed as quickly as possible with this project, so your cooperation in this matter is appreciated.

CONTRACTOR CHECKLIST

- ☐ List Previous City of Fort Lauderdale Contracts

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- ☐ Number of Employees in your firm

--Percent () Women

--Percent () Minorities

--Job Classifications of Women and Minorities

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- ☐ Use of minority and/or women subcontractors on past projects.

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- ☐ Nature of the work subcontracted to minority and/or women-owned firms.

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- ☐ How are subcontractors notified of available opportunities with your firm?

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☐ Anticipated amount to be subcontracted on this project.

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☐ Anticipated amount to be subcontracted to minority and/or women-owned businesses on this project.

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TRENCH SAFETY

Bidder acknowledges that included in the appropriate bid items of his bid and in the Total Bid Price are costs for complying with the Florida Trench Safety Act, Florida Statutes 553.60 – 553.64. The bidder further identifies the costs of such compliance to be summarized below:

Trench Safety Measure (Description)	Units of Measure (LF/SF)	Unit (Quantity)	Unit Cost	Extended Cost
A. <input type="text"/>	<input type="text"/>	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
B. <input type="text"/>	<input type="text"/>	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
C. <input type="text"/>	<input type="text"/>	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
D. <input type="text"/>	<input type="text"/>	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

Total: \$

The bidder certifies that all trench excavation done within his control in excess of five feet (5') in depth shall be in accordance with the Occupational Safety and Health Administration's excavation safety standards, C.F.R. s. 1926.650 Subpart P., and the Florida Trench Safety Act, Florida Statutes 553.60-553.64.

Failure to complete the above may result in the bid being declared non-responsive.

DATE:
(SIGNATURE)

STATE OF: COUNTY OF:

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

(Name of Individual Signing)

who, after first being duly sworn by me,
 affixed his/her signature in the space provided above on this
 day of , 20 .

NOTARY PUBLIC

My Commission Expires:

QUESTIONNAIRE SHEET

PLEASE PRINT OR TYPE:

Firm Name: President

Business Address:

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Telephone:

Fax:

E-Mail Address:

What was the last project of this nature which you completed? Include the year, description, and contract value.

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The following are named as three corporations and representatives of those corporations for which you have performed work similar to that required by this contract, and which the City may contact as your references (include addresses, telephone numbers and e-mail addresses). Include the project name, year, description, and contract value.

How many years has your organization been in business?

Have you ever failed to complete work awarded to you; if so, where and why?

The name of the qualifying agent for the firm and his position is: Certificate of Competency Number of Qualifying Agent: Effective Date: Expiration Date: Licensed in: Engineering Contractor's License #

(County/State)

Expiration Date:

NOTE: To be considered for award of this contract, the bidder must submit a financial statement upon request.

NOTE: Contractor must have proper licensing and shall provide copy of same with his proposal.

QUESTIONNAIRE SHEET

1. Have you personally inspected the proposed work and have you a complete plan for its performance?

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2. Will you sublet any part of this work? If so, list the portions or specialties of the work that you will.

a)

--

b)

--

c)

--

d)

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e)

--

f)

--

g)

--

3. What equipment do you own that is available for the work?

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4. What equipment will you purchase for the proposed work?

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5. What equipment will you rent for the proposed work?

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LOCAL BUSINESS PRICE PREFERENCE

Section 2-199.2, Code of Ordinances of the City of Fort Lauderdale, (Ordinance No. C-12-04), provides for a local business preference.

In order to be considered for a local business preference, a bidder must include the Local Business Preference Certification Statement of this ITB, as applicable to the local business preference class claimed **at the time of bid submittal**:

Upon formal request of the City, based on the application of a Local Business Preference the Bidder shall within ten (10) calendar days submit the following documentation to the Local Business Preference Class claimed:

A) Copy of City of Fort Lauderdale current year business tax receipt, **or** Broward County current year business tax receipt, **and**

B) List of the names of all employees of the bidder and evidence of employees' residence within the geographic bounds of the City of Fort Lauderdale or Broward County, as the case may be, such as current Florida driver license, residential utility bill (water, electric, telephone, cable television), or other type of similar documentation acceptable to the City.

Failure to comply at time of bid submittal shall result in the bidder being found ineligible for the local business preference.

THE COMPLETE LOCAL BUSINESS PREFERENCE ORDINANCE MAY BE FOUND ON THE CITY'S WEB SITE AT THE FOLLOWING LINK:

https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2AD_ARTVFI_DIV2PR_S2-186LOBUPRPR

Definitions: The term "Business" shall mean a person, firm, corporation or other business entity which is duly licensed and authorized to engage in a particular work in the State of Florida. Business shall be broken down into four (4) types of classes:

1. Class A Business – shall mean any Business that has established and agrees to maintain a permanent place of business located in a non-residential zone and staffed with full-time employees within the limits of the City **and** shall maintain a staffing level of the prime contractor for the proposed work of at least fifty percent (50%) who are residents of the City.
2. Class B Business - shall mean any Business that has established and agrees to maintain a permanent place of business located in a non-residential zone and staffed with full-time employees within the limits of the City **or** shall maintain a staffing level of the prime contractor for the proposed work of at least fifty percent (50%) who are residents of the City.
3. Class C Business - shall mean any Business that has established and agrees to maintain a permanent place of business located in a non-residential zone **and** staffed with full-time employees within the limits of Broward County.
4. Class D Business – shall mean any Business that does not qualify as either a Class A, Class B, or Class C business.

LOCAL BUSINESS PRICE PREFERENCE CERTIFICATION STATEMENT

The Business identified below certifies that it qualifies for the local business price preference classification as indicated herein, and further certifies and agrees that it will re-affirm its local preference classification annually no later than thirty (30) calendar days prior to the anniversary of the date of a contract awarded pursuant to this ITB. Violation of the foregoing provision may result in contract termination.

- | | | | |
|-----|--|---------------|---|
| (1) | | Business Name | is a Class A Business as defined in City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. A copy of the City of Fort Lauderdale current year Business Tax Receipt <u>and</u> a complete list of full-time employees and evidence of their addresses shall be provided within 10 calendar days of a formal request by the City. |
| (2) | | Business Name | is a Class B Business as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. A copy of the Business Tax Receipt <u>or</u> a complete list of full-time employees and evidence of their addresses shall be provided within 10 calendar days of a formal request by the City. |
| (3) | | Business Name | is a Class C Business as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. A copy of the Broward County Business Tax Receipt shall be provided within 10 calendar days of a formal request by the City. |
| (4) | | Business Name | requests a Conditional Class A classification as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. Written certification of intent shall be provided within 10 calendar days of a formal request by the City. |
| (5) | | Business Name | requests a Conditional Class B classification as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. Written certification of intent shall be provided within 10 calendar days of a formal request by the City. |
| (6) | | Business Name | is considered a Class D Business as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186 and does not qualify for Local Preference consideration. |

BIDDER'S
COMPANY:

AUTHORIZED
COMPANY
PERSON:

NAME

SIGNATURE

DATE

NON-COLLUSION STATEMENT:

By signing this offer, the vendor/contractor certifies that this offer is made independently and *free* from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any City of Fort Lauderdale, FL officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more).

3.4. Immediate family members (spouse, parents and children) are also prohibited from contracting with the City subject to the same general rules.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

NAME**RELATIONSHIPS**

-

In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

BID NO. 12249-293 / PROJECT NO. P12469 SPECIFIC REFERENCES FORM

The contractor shall have at least ten (10) years previous construction experience in constructing additions/modifications to existing operating water treatment plants or wastewater treatment plants value great than \$20 million.

Bidder shall submit proof of construction experience for a minimum of three (3) projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address..

Note: Do not include proposed team members or parent/subsidiary companies as references in your submittals.

A. PRIME BIDDER'S NAME:

CLIENT NO.1 - Name of firm to be contacted:

Address:

Contact Person:

Phone No: ()

Contact E-Mail Address:

Project Performance Period: to Dates should be in mm/yy format

Project Name:

Location of Project:

Overall Construction Cost:

Description of the overall

scope:

Description of work that was self-performed by Bidder:

CLIENT NO.2 - Name of firm to be contacted:

Address:

Contact Person:

Phone No: ()

Contact E-Mail Address:

Project Performance Period: to Dates should be in mm/yy format

Project Name:

Location of Project:

Overall Construction Cost:

Description of the overall

scope:

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Description of work that was self-performed by Bidder:

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CLIENT NO.3 - Name of firm to be contacted:

Address:

Contact Person:

Phone No: ()

Contact E-Mail Address:

Project Performance Period: to Dates should be in mm/yy format

Project Name:

Location of Project:

Overall Construction Cost:

Description of the overall

scope:

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Description of work that was self-performed by Bidder:

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**CONTRACTOR'S CERTIFICATE OF COMPLIANCE WITH
NON-DISCRIMINATION PROVISIONS OF THE CONTRACT**

The completed and signed form should be returned with the Contractor's submittal. If not provided with submittal, the Contractor must submit within three business days of City's request. Contractor may be deemed non-responsive for failure to fully comply within stated timeframes.

Pursuant to City Ordinance Sec. 2-17(a)(i)(ii), bidders must certify compliance with the Non-Discrimination provision of the ordinance.

- (a) Contractors doing business with the City shall not discriminate against their employees based on the employee's race, color, religion, gender (including identity or expression), marital status, sexual orientation, national origin, age, disability or any other protected classification as defined by applicable law.

Contracts. Every Contract exceeding \$100,000, or otherwise exempt from this section shall contain language that obligates the Contractor to comply with the applicable provisions of this section.

The Contract shall include provisions for the following:

- (i) The Contractor certifies and represents that it will comply with this section during the entire term of the contract.
- (ii) The failure of the Contractor to comply with this section shall be deemed to be a material breach of the contract, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.

Authorized Signature

Print Name and Title

Date

CONTRACT PAYMENT METHOD

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) program which changes how payments are remitted to its vendors. The City is transitioning from traditional paper checks to credit card payments via MasterCard or Visa as part of this program.

This allows you as a vendor of the City of Fort Lauderdale, to receive your payment fast and safely. No more waiting for checks to be printed and mailed.

In accordance with Article 7, item 7.6 of the contract, payments on this contract will be made utilizing the City's P-Card. Accordingly, bidders must presently have the ability to accept these credit cards or take whatever steps necessary to implement acceptance of a card before the start of the contract term, or contract award by the City.

Please indicate with which credit card you prefer to be paid:

☐ Master Card

☐ Visa Card

Company Name:

Signature:

Print Name Title:

CONSTRUCTION BID CERTIFICATION

Please Note: All fields below must be completed. If the field does not apply to you, please note N/A in that field. If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit <http://www.dos.state.fl.us/>).

Company: (Legal Registration)

Address:

City: State: Zip:

Telephone No. FAX No. Email:

Does your firm qualify for MBE or WBE status: MBE ☐ WBE ☐

If a corporation, state the name of the President, Secretary and Resident Agent. If a partnership, state the names of all partners. If a trade name, state the names of the individuals who do business under the trade name.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Title	Name	Title
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Title	Name	Name

ADDENDUM ACKNOWLEDGEMENT - Bidder acknowledges that the following addenda have been received and are included in the bid:

Addendum No.	Date Received	Addendum No.	Date Received	Addendum No.	Date Received	Addendum No.	Date Received
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

VARIANCES: If you take exception or have variances to any term, condition, specification, or requirement in this bid you must specify such variance in the space provided below or reference in the space provided below all variances contained on other pages within your bid. Additional pages may be attached if necessary. No variances will be deemed to be part of the bid submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. If submitting your response electronically through BIDS SYNC you must also click the "Take Exception" button.

The below signatory affirms that he has or will obtain all required permits and licenses from the appropriate agencies, and that his firm is authorized to do business in the State of Florida. The below signatory agrees to furnish all labor, tools, material, equipment and supplies, and to sustain all the expense incurred in doing the work set forth in strict accordance with the bid plans and contract documents at the unit prices indicated if awarded a contract. The below signatory has not divulged to, discussed, or compared this bid with other bidders, and has not colluded with any other bidder or parties to this bid whatsoever. Furthermore, the undersigned guarantees the truth and accuracy of all statements and answers contained in this bid. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a bid, that in no event shall the City's liability for bidder's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars (\$500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City protest ordinance contained in this competitive solicitation.

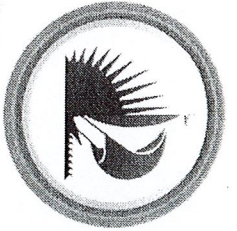
Submitted by:

Name (printed)

Date:

Signature

Date:



FINANCE DEPARTMENT PRE-BID MEETING SIGN-IN SHEET

DATE: 03/27/2019

TIME: 10:00 ☒ AM ☐ PM

OPENING DATE: 04/16/2019

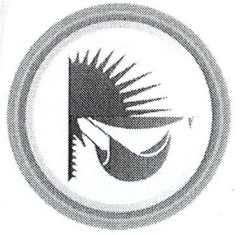
PROCUREMENT CONTACT: Penelope Burger, Procurement Administrator

ITB #: 12249-293

ITB TITLE: G.T. Lohmeyer Deep Injection Wells Mechanical Integrity Test Project 12469



NAME	COMPANY	PHONE	EMAIL
Mike Wilson	Youngquist Bros Inc	239-560-4527	mwilson@youngquistbros.com
Sahn Cathey	Layne/Granite	239-275-1029	jahn.cathey@gcinc.com
Charles Delisi	All Webs Inc	561-596-1071	charlie@allwebs.com
David Webb Jr	All Webs Inc	561-718-5092	davidwebb@allwebs.com
Tim Dweil	CDM Smith Inc.	954-319-3076	timd@cdmsmith.com
Gerald Soto	CDM Smith Inc.	954-561-571-3752	sotog@cdmsmith.com
Christina Garcia	CDM Smith	754-610-3304	garcia@cdmsmith.com
Michel Cagnon	City of Fort Lauderdale	904-710-5710	mcagnon@fortlauderdale.gov
Juan C. Lopez	AC Schultes of Florida	786-759-2078	
Najib Kallani	AC Schultes of Florida	305-216-3077	Duke@jafferwells.com
Gregory Schultes	AC Schultes of Florida	813-781-3021	greg.acsfl@verizon.net
HERB STALLER	CITY OF FORT LAUDERDALE	954-828-6801	hstaller@fortlauderdale.gov
Penelope Burger	City of Fort Lauderdale	954-828-5189	pburger@fortlauderdale.gov
Matthew McKirshan	City of Fort Lauderdale	954-828-	mmckirshan@fortlauderdale.gov



FINANCE DEPARTMENT

PRE-BID MEETING SIGN-IN SHEET

DATE: 03/27/2019

TIME: 10:00

AM PM

OPENING DATE: 04/16/2019

PROCUREMENT CONTACT: Penelope Burger, Procurement Administrator

ITB #: 12249-293

ITB TITLE: G.T. Lohmeyer Deep Injection Wells Mechanical Integrity Test Project 12469



CAM #19-0444

Exhibit 3
194 of 204

p. 194

NAME	COMPANY	PHONE	EMAIL
Stewart Magenhelm	CDM Smith	954-6416-6291	magenhelm@cdmsmith.com
Justin Murray	Co FL	954-828-4122	jmurray@fortlauderdale.gov
Anna Buckner	Holcomb Paine	954-999-2864	abuckner@holcomb-paine.com
Wingard A. Mayo	City of Fort Lauderdale	954-828-7806	mayo@cityofftlauderdale.gov
Rosetta Harris	Co FL	954-828-4121	rharris@cityofftlauderdale.gov
Tom Fatout	Co FL	954-828-4132	tfatout@cityofftlauderdale.gov



City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ITB 12249-293
PROJECT No. 12469
G.T. Lohmeyer Deep Injection Wells Mechanical Integrity Test

ADDENDUM NUMBER 1

April 2, 2019

The following Addendum is hereby made a part of the Plans and Specifications and shall be included with all contract documents:

Acknowledge receipt of this Addendum by inserting its number and date on the Construction Bid Certification. **All changes are in bold, red italics.**

1. Base Bid Video Survey - Line 12249-293-01-07:

CHANGE: Quantity from 5 each to **10 each**.

2. Section 05, *Contract Time*, BidSync page 21:

CHANGE: ADD to 5.2:

5.2.1 Injection Well (IW-3) shall be pressure tested on or before July 26, 2019

5.2.2 Injection Well (IW-2) shall be pressure tested on or before August 9, 2019

5.2.3 Injection Well (IW-1) shall be pressure tested on or before August 23, 2019

5.2.4 Injection Well (IW-5) shall be pressure tested on or before September 6, 2019

5.2.5 Injection Well (IW-4) shall be pressure tested on or before September 20, 2019

CHANGE: Section 5.3: The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within ~~119~~ **137** calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

3. Section 13, Liquidated Damages, BidSync page 26:

CHANGE: ADD - Upon failure of the Contractor to complete the Work within the time specified for Completion **or milestones date**, the Contractor shall pay to the City the sum of Five Hundred Dollars (\$500.00) for each and every calendar day that the completion of the Work **or milestones date** is delayed beyond the **milestone dates or** time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay is caused by the Contractor. (See Article 16, Liquidated Damages Clause, of the Contract).



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4. **CHANGE ADD: Attached Procurement Plan**
5. **CHANGE DELETE: Figure No. 6, 7, 8, 9, 10, 11 in there entirety, and REPLACE WITH the attached Figure No. 6, 7, 8, 9, 10, 11**

All other terms, conditions, and specifications remain unchanged.

Penelope Burger

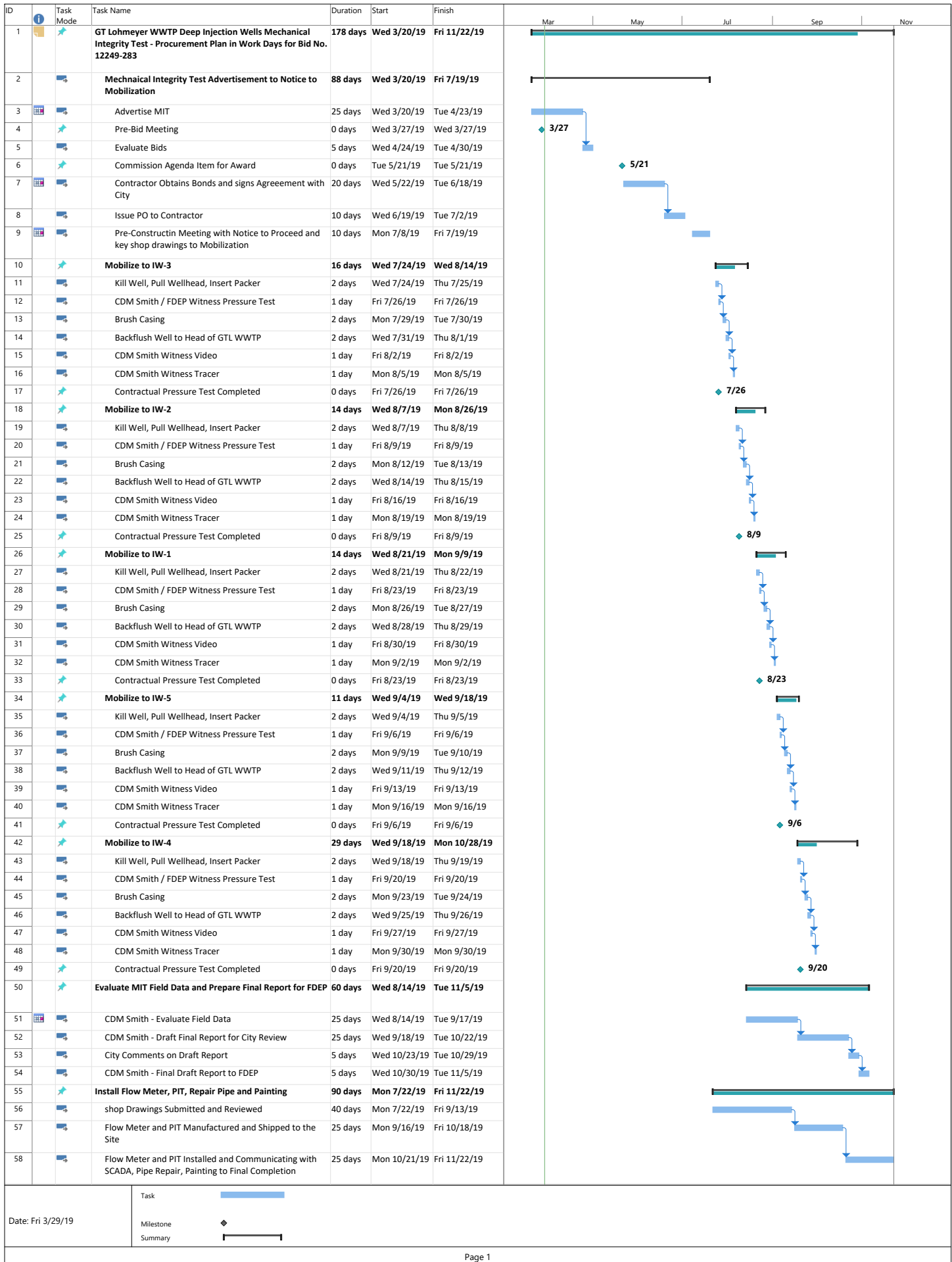
Procurement Administrator

Company Name: _____

(please print)

Bidder's Signature: _____

Date: _____

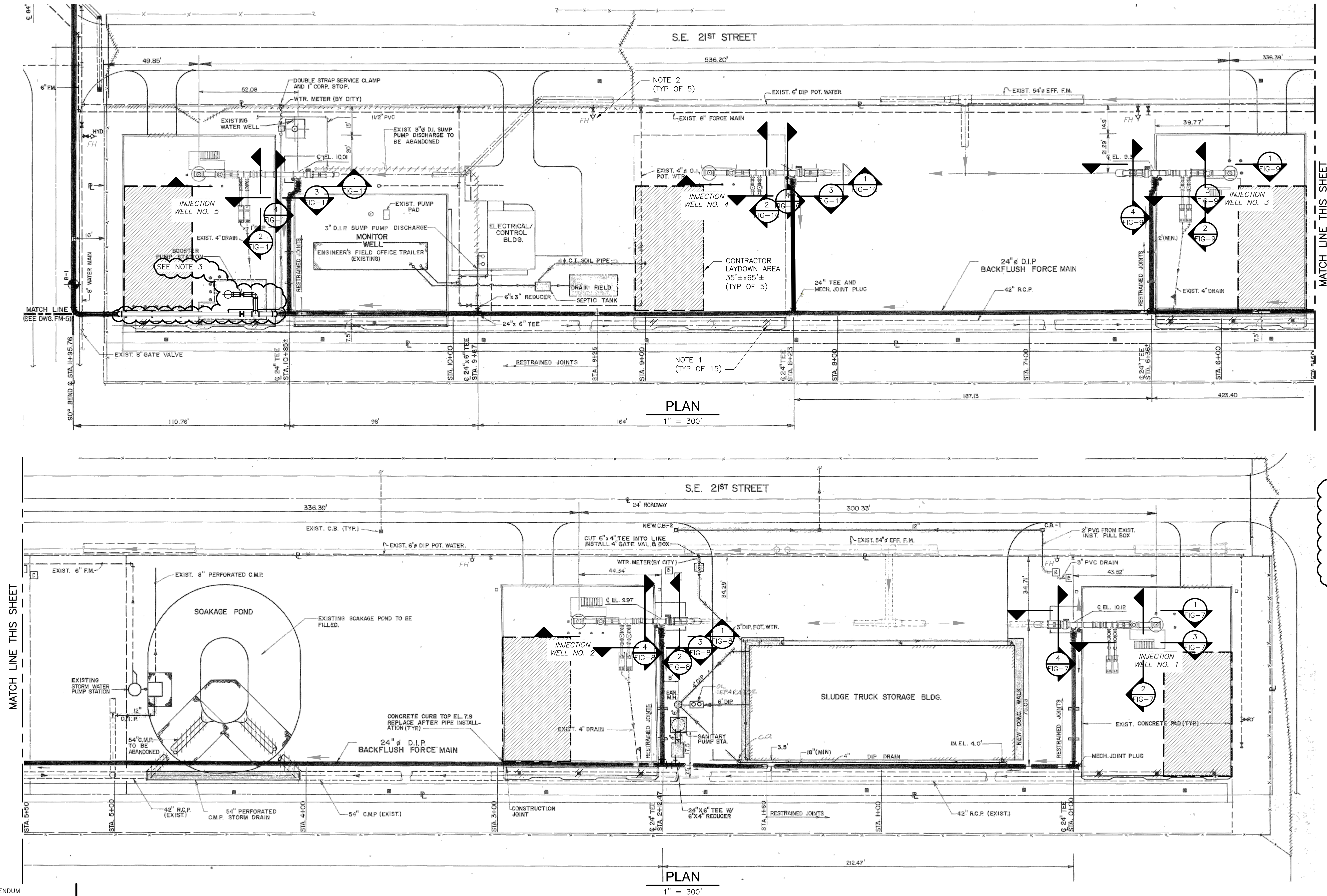


c:\pwworkspace\cdm-smith.com\p1\1\Documents\6017123224\03 Project Information\03 Data\30 Reports\04 Figures\FIG 6.dwg
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4/17/2019 7:43 AM

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NOTES:

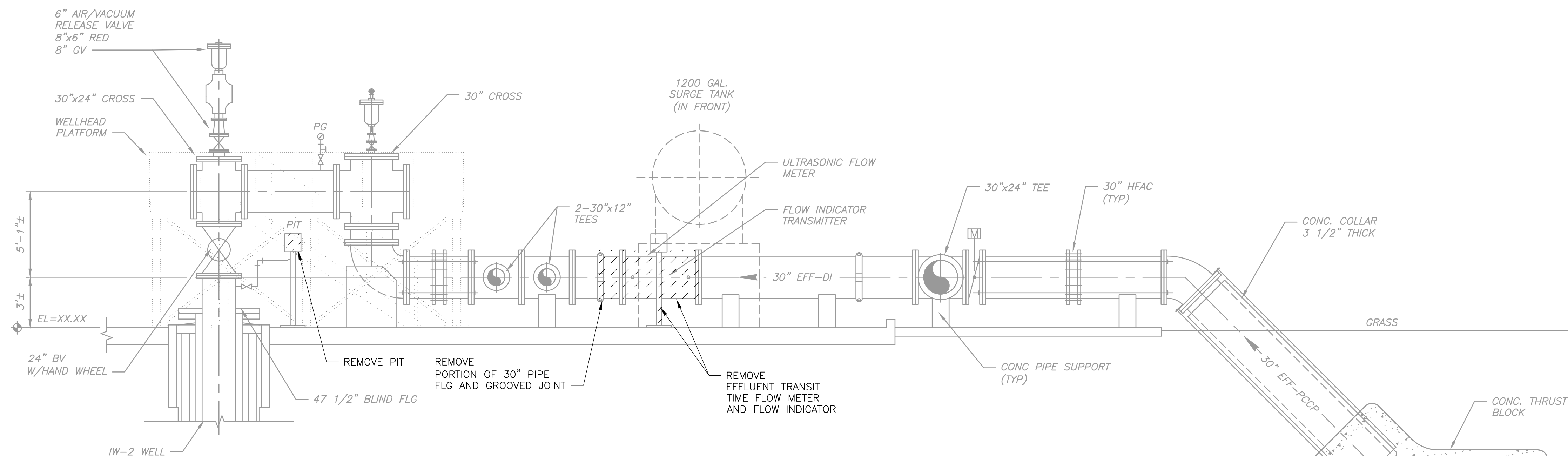
1. SILT PROTECTION REQUIRED AROUND ALL EXISTING CATCH BASINS DURING CONSTRUCTION.
2. CONTRACTOR TO INSTALL TWO IN SERIES BACKFLOW PREVENTERS TO EXISTING FIRE HYDRANT TO ENABLE THE CITY CONNECTION OF WATER METER FOR MONITORING OF WATER USAGE.
3. PAINT ABOVE GROUND PIPE, FITTINGS, VALVES, AND BOOSTER PUMP. SEE PAINT SPECIFICATION SECTION FOR SURFACE PREPARATION AND APPLICATION.

Figure No. 6
G.T. Lohmeyer Injection Facility
Wells Site Plan

p:\pw\cdmsmith.com\DWG\11\Documents\6017\23224\02 Project Information\03 Data\30 Reports\04 Figures\FIG 8.dwg
p:\pw\cdmsmith.com\DWG\11\Documents\6017\23224\02 Project Information\03 Data\30 Reports\04 Figures\FIG 8.dwg
AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.

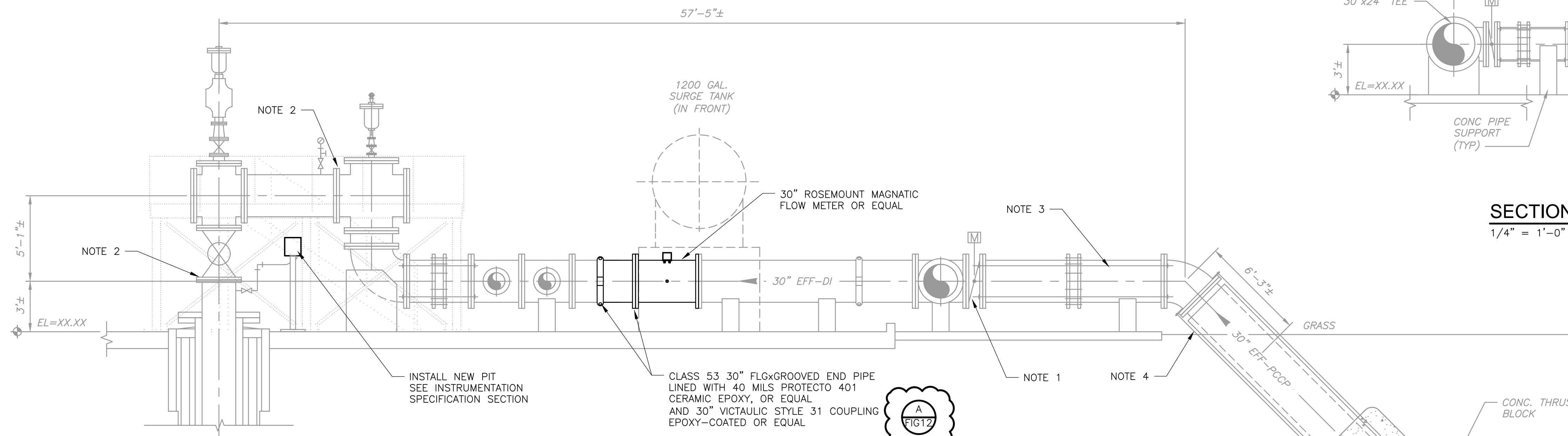
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CDM
Smith

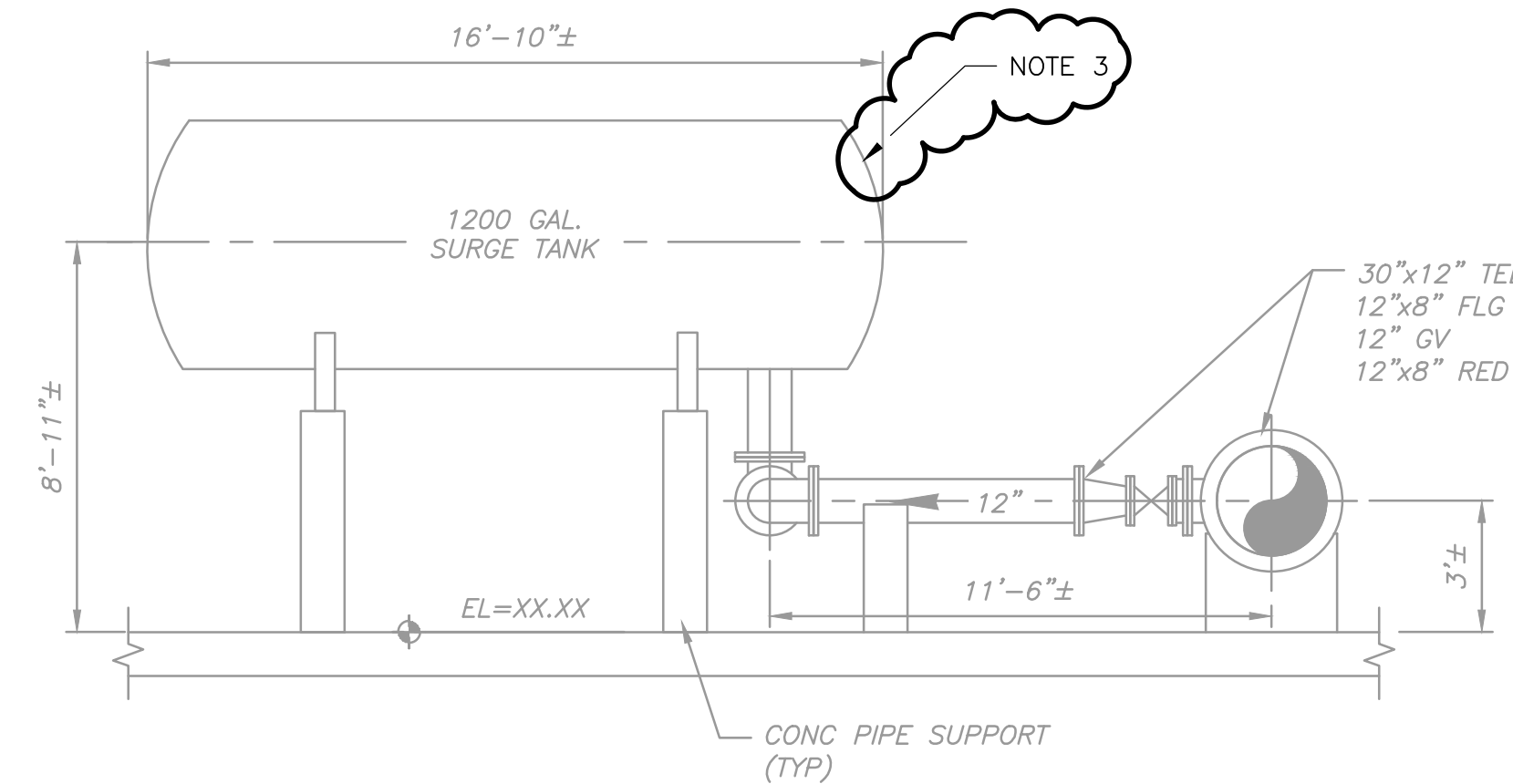


DEMOLITION
SECTION 1
1/4" = 1'-0" FIG-6

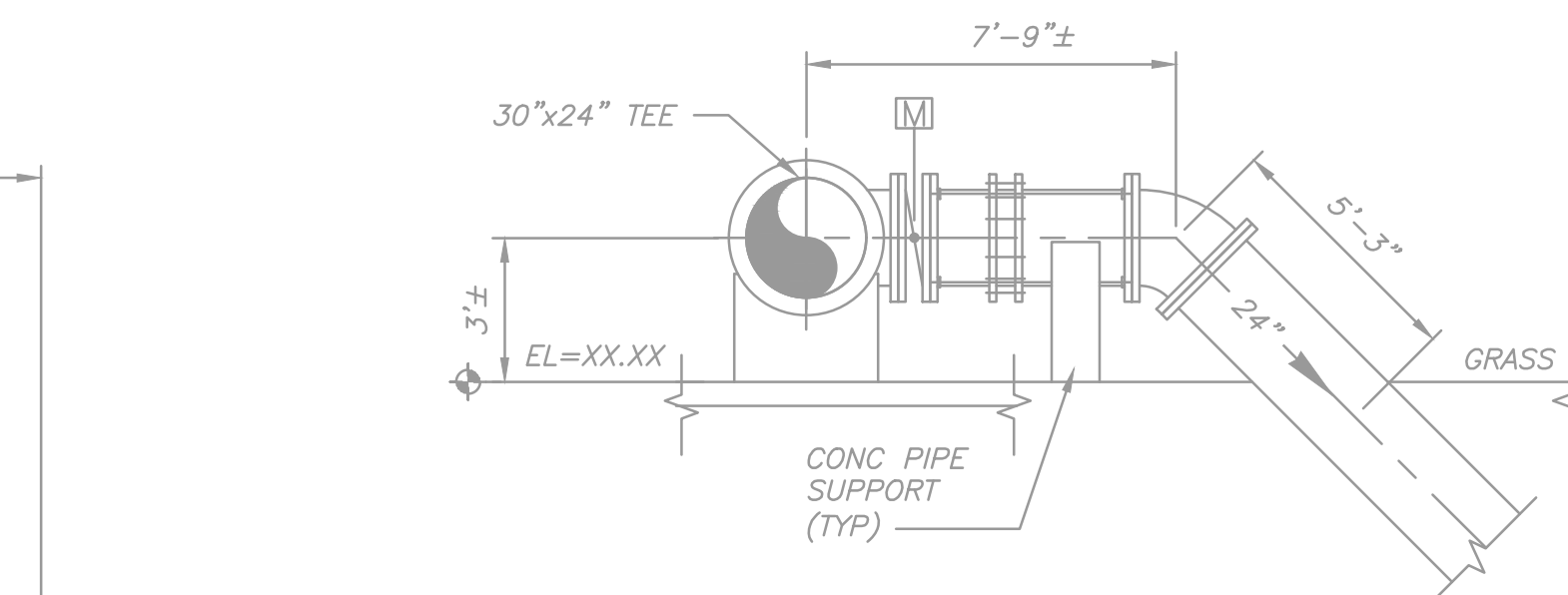
- NOTES:
1. CITY TO CLOSE VALVE DURING METER REPLACEMENT.
 2. REPLACE EXISTING NUTS, BOLTS AND GASKETS, WITH NEW 316 STAINLESS STEEL NUTS AND BOLTS AND GASKET WITH GALVANIC PROTECTION. GASKETS FOR 250 PSI WORKING PRESSURE FLANGES SHALL BE 1/8-INCH THICK, RED RUBBER (SBR), HARDNESS 80 (SHORE A), RATED TO 200 DEGREES F, CONFORMING TO ANSI B16.21, AWWA C207, AND ASTM D1330, GRADES 1 AND 2.
 3. PAINT ABOVE GROUND PIPE, FITTINGS, VALVES, AND SURGE TANK. SEE PAINTING SPECIFICATION SECTION FOR SURFACE PREPARATION AND APPLICATION.
 4. SCORE EXISTING ABOVE GROUND CONCRETE SIX INCHES ABOVE GRADE. REMOVE ALL EXISTING AND FAILING CONCRETE WITHOUT DAMAGING EXISTING PIPE. PREPARE EXISTING PIPE OR CEMENT FOR REPAIR IN ACCORDANCE WITH AMERICAN SPIRALWELD PIPE FIELD CEMENT MORTAR RECOMMENDATION CEMENT MORTAR REPAIR (SEE FIGURE 7).
 5. PIPE FLANGE SHOULD BE PAINTED BEFORE BOLT AND NUT CONNECTIONS. (STAINLESS STEEL BOLTS AND NUTS NOT TO BE PAINTED).



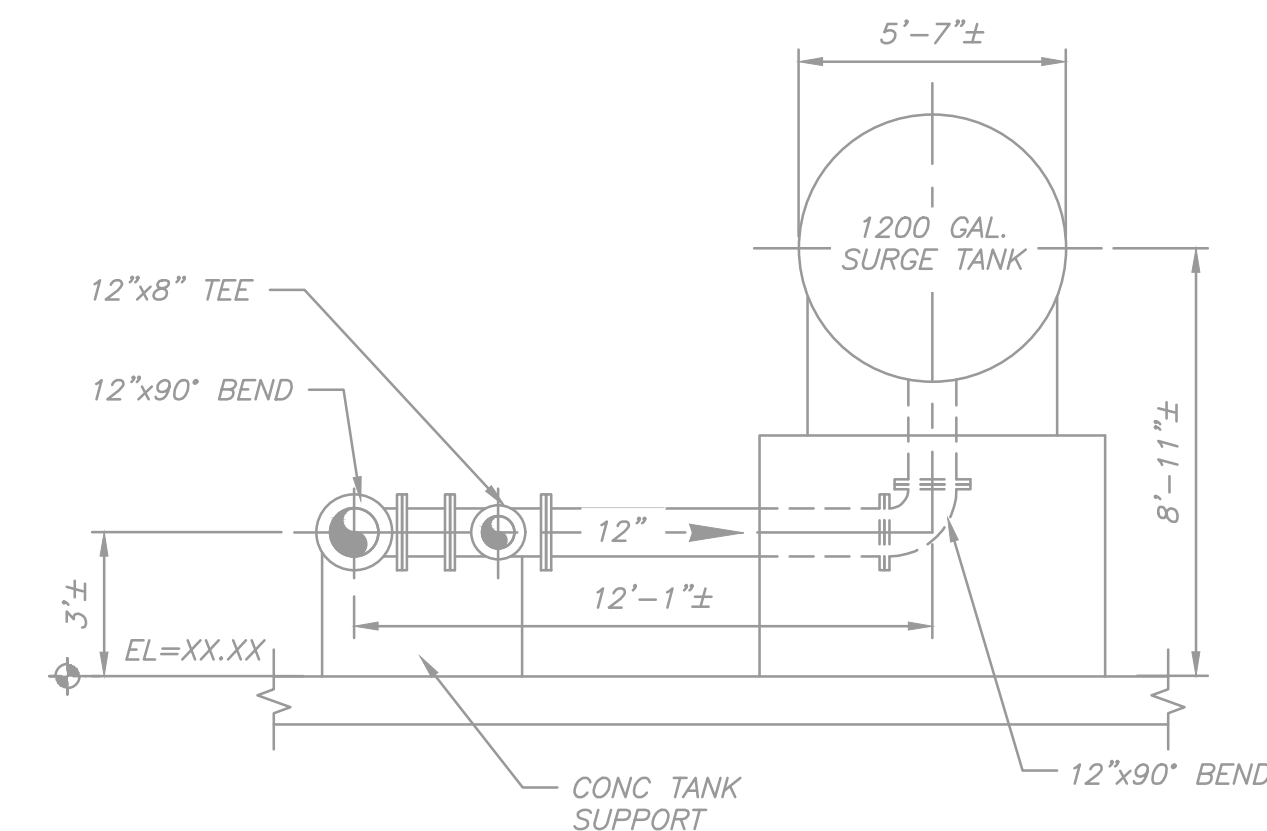
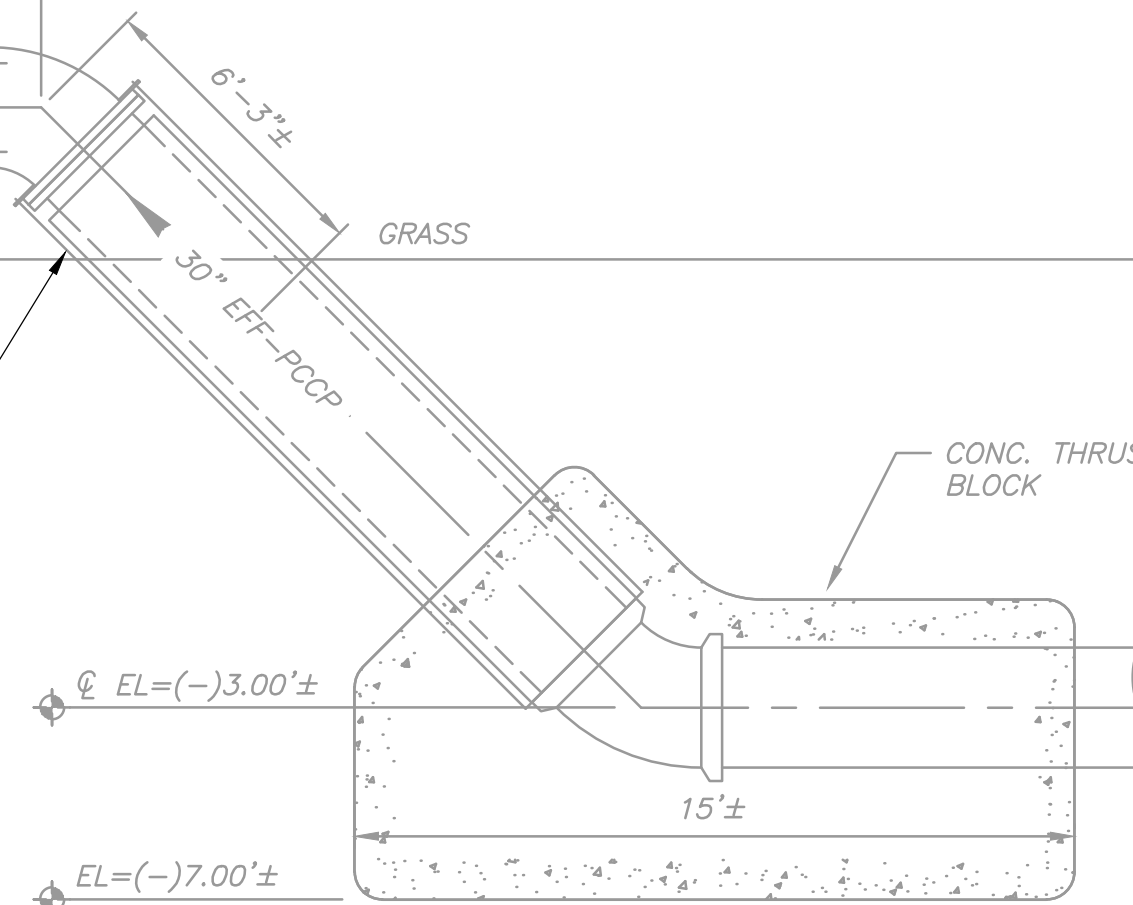
MODIFICATIONS
SECTION 1
1/4" = 1'-0" FIG-6



SECTION 2
1/4" = 1'-0" FIG-6



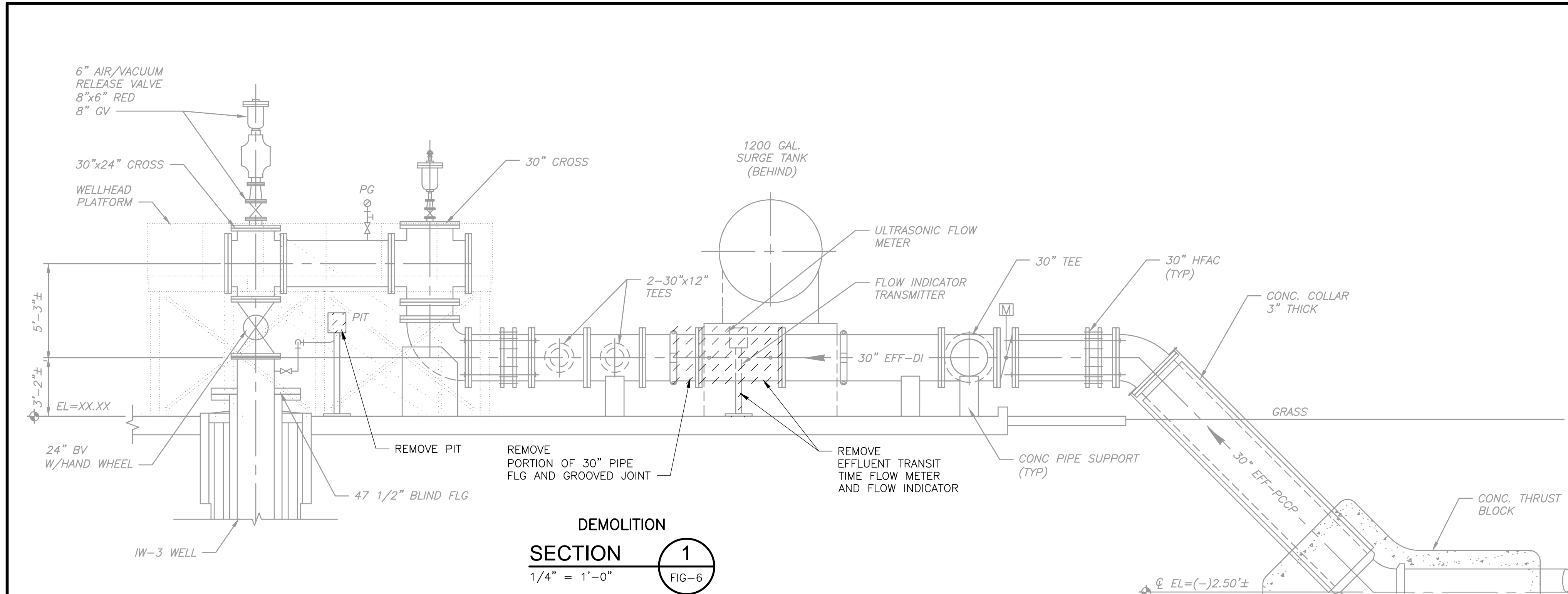
SECTION 4
1/4" = 1'-0" FIG-6



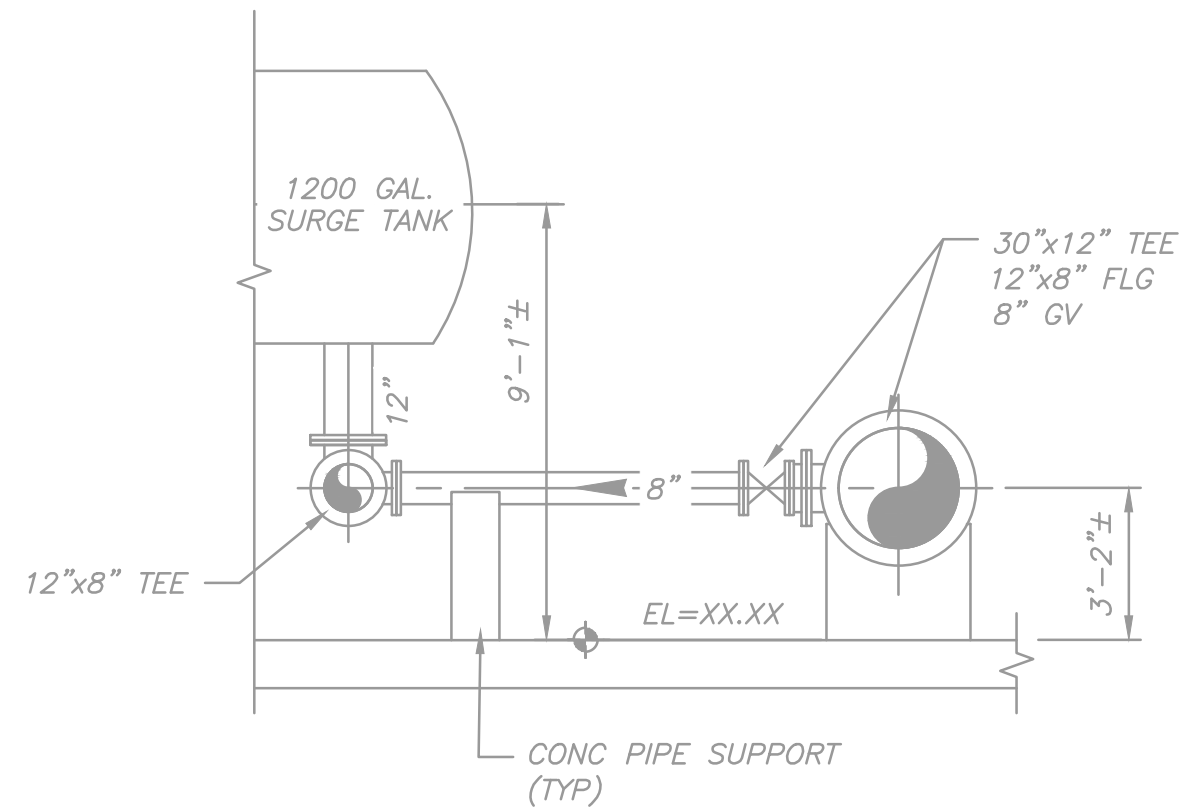
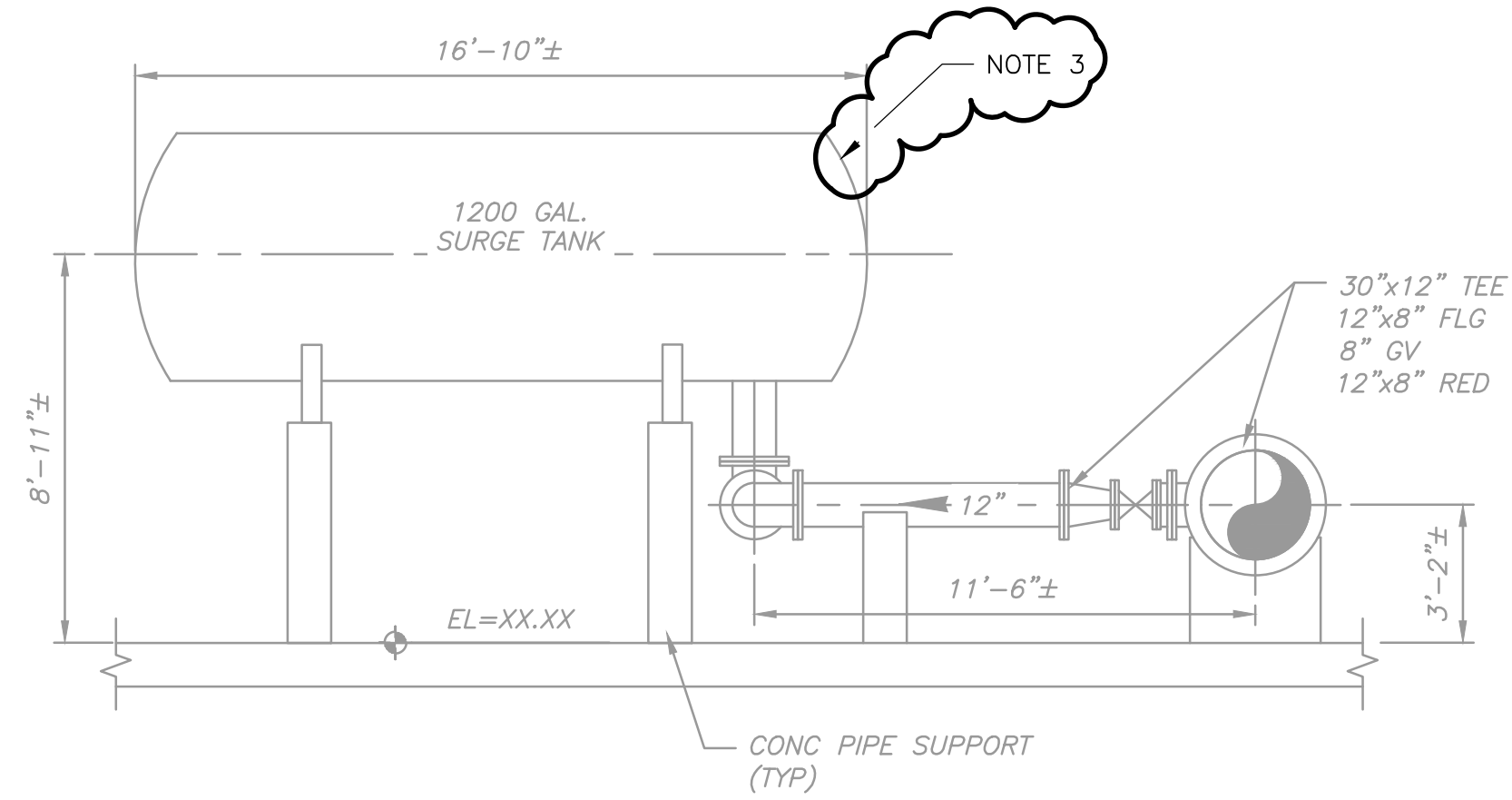
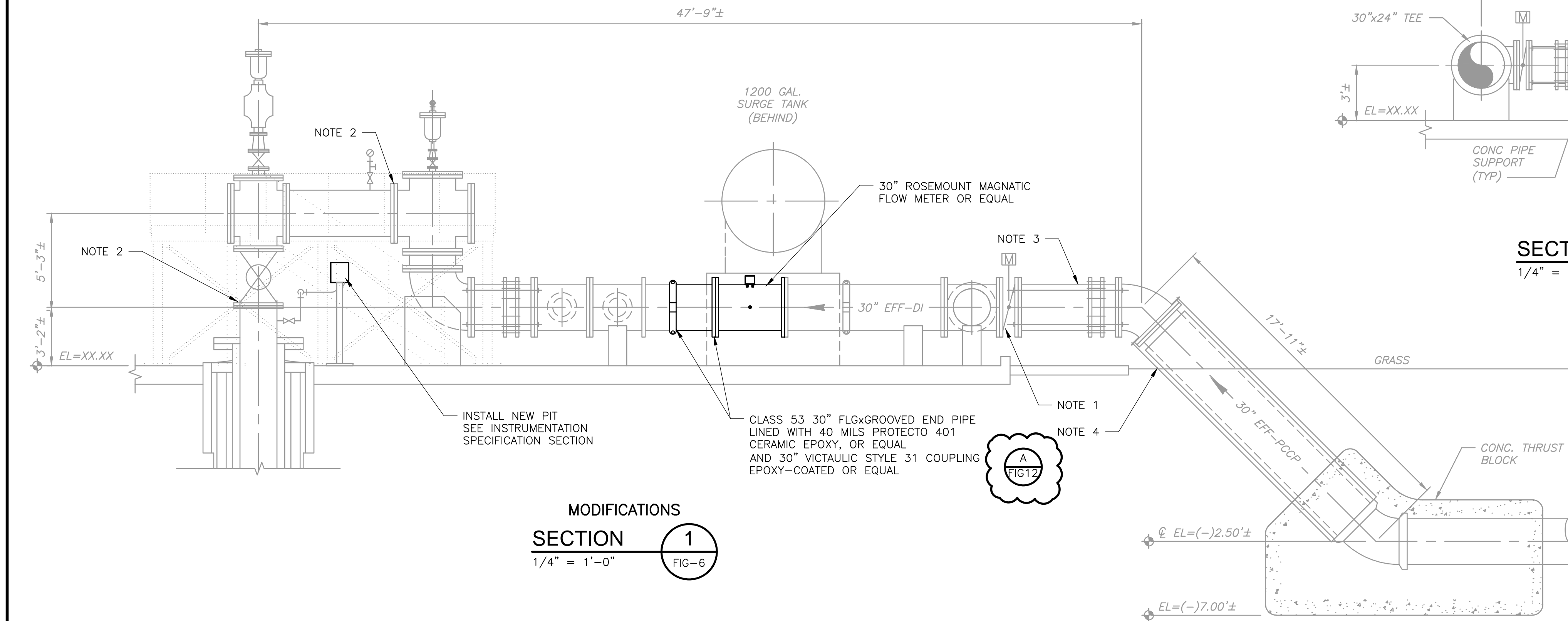
SECTION 3
1/4" = 1'-0" FIG-6

Figure No. 8
G.T. Lohmeyer Injection Facility
IW-2 Well Head Sections

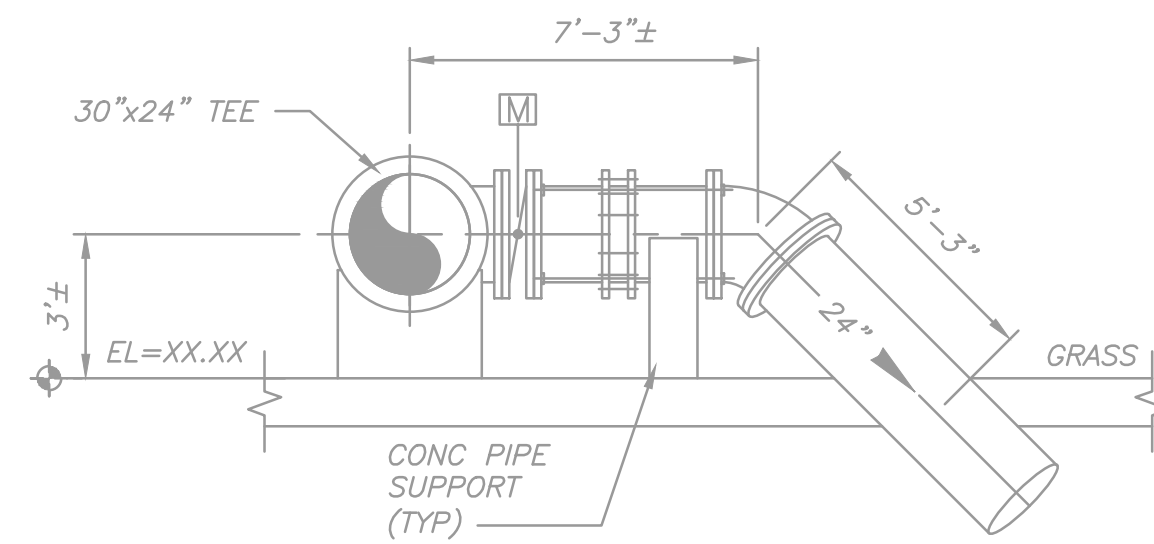
p:\pw\cdmsmith.com\DWG\11\Documents\6017123234\02 Project Information\03 Data\30 Reports\04 Figures\FIG 9.dwg
p:\pw\cdmsmith.com\DWG\11\Documents\6017123234\02 Project Information\03 Data\30 Reports\04 Figures\FIG 9.dwg
AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



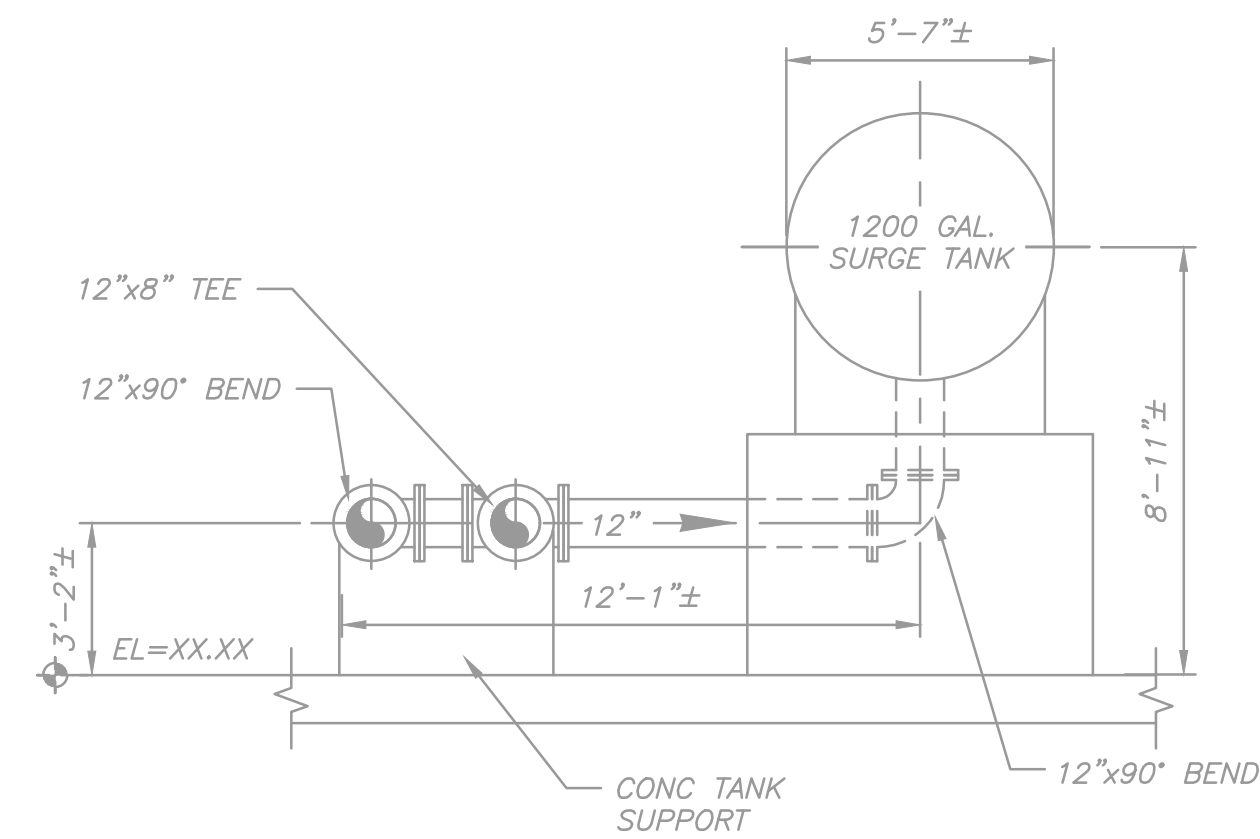
- NOTES:
1. CITY TO CLOSE VALVE DURING METER REPLACEMENT.
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 5. PIPE FLANGE SHOULD BE PAINTED BEFORE BOLT AND NUT CONNECTIONS. (STAINLESS STEEL BOLTS AND NUTS NOT TO BE PAINTED).



SECTION 2
1/4" = 1'-0"



SECTION 4
1/4" = 1'-0"

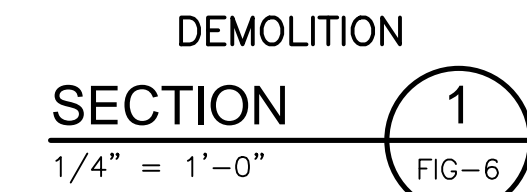


SECTION 3
1/4" = 1'-0"

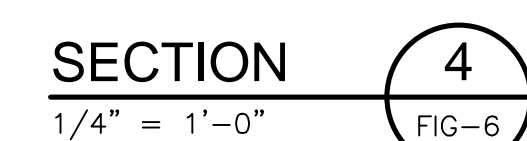
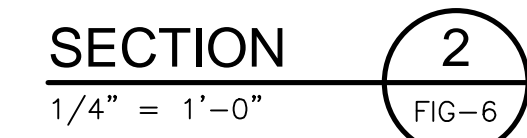
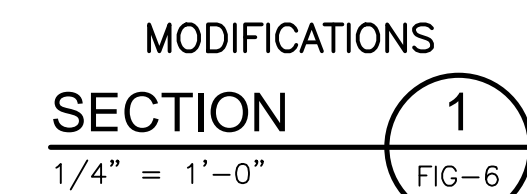
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CDM
Smith

Figure No. 9
G.T. Lohmeyer Injection Facility
IW-3 Well Head Sections



- MODIFICATIONS
- | | |
|--------------|-------|
| SECTION | 1 |
| 1/4" = 1'-0" | FIG-6 |



	4/19	ALN	TJO	ADDENDUM
REV. NO.	DATE	DRWN	CHKD	REMARKS



Question and Answers for Bid #12249-293 - G.T. Lohmeyer Deep Injection Wells Mechanical Integrity Test Project 12469

Overall Bid Questions

Question 1

Is there an estimated budget for this? (Submitted: Mar 19, 2019 11:55:40 AM EDT)

Answer

- The estimated budget is approximately \$1,000,000.00. (Answered: Mar 26, 2019 1:58:30 PM EDT)

Question 2

Please provide the existing static head pressure of each well. (Submitted: Mar 28, 2019 12:17:15 PM EDT)

Answer

- 35-40 psi is the typical observed static head pressure when influent valves are closed. (Answered: Mar 29, 2019 1:38:20 PM EDT)

Question 3

How much water storage shall contractors figure in their bids for settling fluids? (Submitted: Mar 28, 2019 12:23:17 PM EDT)

Answer

- One casing volume, approximately 60,000 gallons. (Answered: Mar 29, 2019 4:06:31 PM EDT)

Question 4

To achieve an uphole velocity of approximately 100 feet per minute during direct airlifting or pumping; the water must be exiting the well at a rate of approximately 2,200 gpm. That will fill a 21,000 gallon frac tank in just under 10 minutes. Considering this, how much airlifting should the bidders account for in their bid? (Submitted: Mar 28, 2019 12:36:05 PM EDT)

Answer

- One casing volume, approximately 60,000 gallons. (Answered: Mar 29, 2019 4:06:31 PM EDT)