

**CITY OF HOLLYWOOD**  
**CONTRACT DOCUMENTS AND SPECIFICATIONS**  
**FOR**  
**SRWWTP INJECTION WELLS 1 & 2**  
**MECHANICAL**

**April 2022**



Prepared by:

**PURCHASING SERVICES DIVISION**

2600 Hollywood Blvd.  
PO Box 229045  
Hollywood, FL 33022-9045

## Bid IFB-4714-22-OT SRWWTP INJECTION WELLS 1 & 2 MECHANICAL

Bid Number **IFB-4714-22-OT**  
 Bid Title **SRWWTP INJECTION WELLS 1 & 2 MECHANICAL**

Bid Start Date **Mar 8, 2022 9:23:28 AM EST**  
 Bid End Date **Apr 7, 2022 3:00:00 PM EDT**  
 Question & Answer End Date **Mar 31, 2022 5:00:00 PM EDT**

Bid Contact **Otis Thomas**  
**Senior Purchasing Agent**  
**Procurement**  
**954-921-3628**  
**Othomas@hollywoodfl.org**

Bid Contact **STACI ALLI**  
**ADMINISTRATIVE ASSISTANCE**  
**PROCUREMENT**  
**954-921-3222**  
**SALLI@HOLLYWOODFL.ORG**

Pre-Bid Conference **Mar 21, 2022 2:00:00 PM EDT**  
**Attendance is optional**  
**Location: 1621 N. 14th Avenue**  
**Hollywood, FL 33020**

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### Addendum # 1

Previous Q & A End Date <b>Mar 22, 2022 5:00:00 PM EDT</b>	New Q & A End Date <b>Mar 31, 2022 5:00:00 PM EDT</b>
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### Description

The work to be performed under this Contract shall consist of the performance of testing and work on two existing deep injection wells IW-1 and IW-2. Work entails the mechanical integrity test (MIT) on each of the wells.



**CITY OF HOLLYWOOD  
DEPARTMENT OF PUBLIC UTILITIES  
ENGINEERING AND CONSTRUCTION SERVICES DIVISION (ECSD)**

**SECTION 00030**

**NOTICE TO BIDDERS**

**PROJECT NAME: SRWWTP INJECTION WELLS 1 & 2 MECHANICAL INTEGRITY TESTING**  
**BID NUMBER: IFB-4714-22-OT**

NOTICE IS HEREBY GIVEN that the City Commission of the City of Hollywood, Florida, is advertising for sealed bids which shall be submitted to the City Clerk's Office (City Hall, 2600 Hollywood Blvd., Hollywood, Florida 33022-9045, Suite 221), **until 3:00 p.m., local time, April 7, 2022.** The bids will be opened and read publicly in the City's Procurement Services Division, 2600 Hollywood Blvd., Suite 303, P.O. Box 229045, Hollywood, Florida 33022-9045.

The work to be performed under this Contract shall consist of the performance of testing and work on two existing deep injection wells IW-1 and IW-2. Work entails the mechanical integrity test (MIT) on each of the wells. The performance of the MIT must be completed by the dates identified in Section 13199 of the bid documents. The work set forth within these bid documents includes the furnishing of all labor, materials, equipment, services and incidentals for the testing and return to service of the wells. Maintenance of existing operations is mandated throughout the testing period.

The Bid Package and Contract documents can be downloaded at: [www.bidsync.com](http://www.bidsync.com). For information concerning procedures for responding to this Bid, contact the Procurement Services Division Otis J. Thomas, Senior Purchasing Agent via email at [othomas@hollywoodfl.org](mailto:othomas@hollywoodfl.org) or by phone at (954) 921-3224, or Staci Alli, Administrative Assistant I via email at [salli@hollywoodfl.org](mailto:salli@hollywoodfl.org) or by phone at 954-921-3222, or his designee. Such contact is to be for clarification purposes only. It is preferred that all other questions be submitted in writing via [bidsync.com](http://bidsync.com).

Each bid must be accompanied by a Bid Security in an amount no less than ten percent (10%) of the bid amount. Said security shall be in the form of a Certified Check or Cashier's Check on a solvent National or State Bank, or a bid bond executed by the Bidder and a qualified Surety, satisfactory and payable to the City of Hollywood, Florida.

A Cone of Silence is in effect with respect to this bid. The Cone of Silence prohibits certain communications between potential vendors and the City. For further information, please refer to Section 30.15(F) of the City's Code of Ordinances.

The City of Hollywood is strongly committed to ensuring the participation of local Hollywood vendors in the procurement of goods and services. For additional information about the City's Local Preference Ordinance, visit [www.hollywoodfl.org](http://www.hollywoodfl.org).

**It will be the Bidder's sole responsibility to hand-deliver or mail his/her proposal to the City Clerk's Office at City Hall on or before the closing time and date for the receipt of bids as noted above.**

The City Commission reserves the right to reject any or all bids, to waive informalities and to accept or reject all or any part of any bid, as they may deem to be in the best interest of the City of Hollywood, Florida.

CITY OF HOLLYWOOD, FLORIDA

Otis J. Thomas, Senior Purchasing Agent  
Procurement Services Division

## SECTION 00100

## INSTRUCTIONS TO BIDDERS

**1. PREPARATION OF BIDS:**

Bids must be submitted on the separate and enclosed BIDDING PACKAGE forms, which shall be completed by typewriter or legibly handwritten in ink. The Bid price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence. Where unit prices and extended totals are required, unit prices take precedence. Likewise, discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

If the Bid is made by an individual, he must sign his name therein and state his address. If the Bid is made by a firm or partnership, its name and address must be stated, as well as the name and address of each member of the firm or partnership. Bids by corporations must be signed by an authorized corporate officer (accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the Secretary or an Assistant Secretary of the corporation. The corporate address and state of incorporation shall be shown below the signature. When the state of incorporation is other than Florida, proof of registry with Florida must be attached.

**2. RECEIPT AND OPENING OF BIDS:**

The Bid Package consisting of the Bid, Bid Proposal Form, Bid Bond, Trench Safety Form, all requested information as specified within and list of Subcontractors and/or material suppliers shall be completed, signed and sealed as required and must be delivered or mailed to the City Clerk of Hollywood, Florida, by the time and date specified in the Notice to Bidders and shall be properly identified on the face thereof.

Bids will be publicly opened and immediately read aloud at the time and place designated in the Notice to Bidders. No Bid will be considered which is not based upon the Drawings and Specifications, or which contains any letter or written memorandum qualifying the same, or which is not properly made out and signed in writing by the Bidder.

**3. PRE-BID CONFERENCE:**

The pre-bid meeting for the project will occur on **March 21, 2022** at **2:00 pm** at 1621 N. 14<sup>th</sup> Avenue, Hollywood, Florida 33020.

**4. CONTRACT DOCUMENTS:**

The Contract Documents give the location and description of the work to be done under this Contract and estimated quantities of each item of work for which Bids are invited, the time in which the work must be completed, the amount of the Bid Guaranty, if any, and the date, time and place of the receipt and opening of the



Bids.

**5. EXAMINATION OF CONTRACT DOCUMENTS AND SITE:**

The Bidder is required to carefully examine the site of the work and the Contract Documents for the work contemplated. It will be assumed that the Bidder has investigated and is fully informed as to the requirements of the Contract Documents, laws, ordinances, codes and any other factors which may affect the performance of the work. Failure to be so informed will not relieve a successful Bidder of his obligation to furnish all material, equipment and labor necessary to carry out the provision of the Contract Documents and to complete the contemplated work for the consideration set forth in his Bid.

**6. DIMENSIONS, QUANTITIES AND SUBSURFACE INFORMATION:**

Dimensions, quantities and subsurface information supplied by the City are in no way warranted to indicate true amounts or conditions. Bidders/Contractors shall neither plead misunderstanding or deception, nor make claims against the City if the actual amounts, conditions or dimensions do not conform to those stated. Any "Outside" reports made available by the Engineer are neither guaranteed as to accuracy or completeness, nor a part of the Contract Documents.

**7. ADDENDA - CHANGES WHILE BIDDING:**

During the Bidding period, Bidders may be furnished addenda or bulletins for additions or alterations to the Plans or Specifications which shall be included in the work covered by the Proposal.

Any prospective Bidder in doubt as to the meaning of any part of the Drawings, Specifications or other Contract Documents may submit a written request to the Engineer for an interpretation. The Bidder submitting the request will be responsible for its prompt delivery. Any interpretation of the documents will be made by an addendum and a copy of such addendum will be mailed or delivered to each prospective Bidder who has received a set of documents. The City will not be responsible for any other explanations or interpretations of the proposed documents. Each prospective bidder must submit their questions or inquiries via [www.bidsync.com](http://www.bidsync.com).

**8. BID GUARANTY:**

A Bid Guaranty in the form of a Cashier's Check, Certified Check or Bid Bond executed by the Bidder and a qualified Surety in the amount of **10%** of the Bid is

required for this project in accordance with the Notice to Bidders.

**9. TRENCH SAFETY FORM:**

The Trench Safety Form included in the Bid Documents must be completed and signed. Noncompliance with this requirement may invalidate the bid.

**10. QUALIFICATIONS AND DISQUALIFICATIONS OF BIDDERS:**

The Contract will be awarded only to the responsive and responsible bidder, who in the opinion of the Engineer and Procurement Division, is fully qualified to undertake the work and is in compliance with the City's Local Preference Criteria (when applicable). The City reserves the right before awarding the Contract to require a bidder to submit such evidence of his qualifications as it may deem necessary and may consider any available evidence of his financial status, technical qualifications and other qualifications and abilities.

Bidders shall submit proof, along with their bid, that their firm has successfully completed comparable projects meeting the following criteria:

- A. The Bidder shall have successfully completed a minimum of three (3) Mechanical Integrity Tests within the past five (5) years for injection wells having a casing depth of at least 2,500 feet below land surface.

Any one of the following causes, among others, may be considered as sufficient justification to disqualify a bidder and reject his or her bid:

- A. Submission of more than one bid for the same work by an individual, firm, partnership or corporation under the same or different names.
- B. Evidence of collusion.
- C. Previous participation in collusive bidding on work for the City of Hollywood, Florida.
- D. Submission of an unbalanced bid in which the prices bid for some items are out of proportion to the prices bid for other items.
- E. Lack of competency. The Bidder shall provide proof that their past experience can demonstrate similar complexity and size compared to this contract. The Engineer may declare any bidder ineligible, at any time during the process or receiving bids or awarding the contract, if developments arise which, in his opinion, adversely affects the bidder's responsibility. The Bidder will be given an opportunity, by the engineer, to present additional evidence before final action is taken.
- F. Lack of responsibility as shown by past work judged by the Engineer from the standpoint of workmanship and progress.
- G. Non-compliance with the City's Local Preference (when applicable).

- H. Uncompleted work for which the Bidder is committed by Contract, which is in the judgment of the Engineer, might hinder or prevent the prompt completion of work under this Contract.
- I. Being in arrears on any existing Contracts with the City, or any taxes, licenses or other monies due the City; in litigation with the City or having defaulted on a previous contract with the City.

**11. LIFE AND WITHDRAWAL OF BID:**

All Bids shall remain open for 90 days after the day of the Bid opening, however, the Engineer may, at his sole discretion, release any Bid and return the Bid Guaranty prior to that date. Any Bid may be modified or withdrawn prior to the time scheduled for the opening of Bids.

**12. REJECTION OF IRREGULAR BIDS:**

Bids will be considered irregular and may be rejected if they show omissions, alterations of form, additions not called for, conditions, limitations, unauthorized alternate Bids or other irregularities of any kind.

**13. BIDDING ERRORS:**

If after the opening of bids, a Bidder claims an error and requests to be relieved of the Award, or the Engineer believes that an error may have been made then, the Bidder shall present his work sheets and supplier quotations to the Engineer for verification. This information shall be presented on the same day as the bid opening or if the opening is in the afternoon then on the following business day. When the Engineer has suspected an error and requires the documents, Bidder's failure to produce them within the time specified shall make the Bidder non-responsive and thereby eligible for disqualification. Award may then be made to the next lowest responsive, responsible Bidder, or the work may be readvertised or it may be performed by City forces, as the Commission desires.

**14. AWARD OF CONTRACT:**

The City Commission reserves the right to reject any or all Bids, or any part of any Bid, to waive any informality in any Bid, or to re-advertise for all or any part of the work contemplated. If Bids are found to be acceptable by the City Commission, written notice of award will be given to the lowest responsive, responsible Bidder.

**15. EXECUTION OF CONTRACT:**

The Bidder to whom the Contract is awarded shall, within ten days of the date of award, execute and deliver three (3) copies of the following to the Engineer.

- A. The Contract
- B. Performance and Payment Bond

- C. Evidence of required Insurance
- D. Proof of authority to execute the Contract
- E. Proof of authority to execute the Bond on behalf of the Awardee
- F. List of Subcontractors, estimated Contract Value for each and proof that such subcontractors possess all required Federal, State, County and/or municipality licenses, including but not limited to certified of competency and occupational license.

The above documents must be furnished, executed and delivered before the Contract will be executed by the City. The Contract shall not be binding upon the City until it has been executed by the City and a copy of such fully executed Contract is delivered to the Contractor.

**16. FAILURE TO EXECUTE CONTRACT, BID GUARANTY FORFEITED:**

Should the Bidder to whom the Contract has been awarded refuse or fail to complete the requirements of Article 15 above within ten (10) days after Notice of Award, the additional time in days (including weekends) required to CORRECTLY complete the documents will be deducted, in equal amount, from the Contract Time, or the City may elect to revoke the Award. In the same manner as Article 13, the Bid Guaranty of any Bidder failing to execute the awarded Contract shall be retained by the City and the Contract awarded as the Commission desires.

**17. GUARANTY OF FAITHFUL PERFORMANCE AND PAYMENT:**

A Performance Bond and a Payment Bond each equal to 100 percent of the total Bid will be required of the Awardee. The Bond must be written through a company licensed to do business in the State of Florida and be rated at least "A", Class X, in the latest edition of "Best's Key Rating Guide", published by A.M. Best Company. As per Florida Statute Section 255.05, the Contractor shall be required to record the payment and performance bonds in the public records of Broward County.

**18. INSURANCE:**

Bidder must satisfy all insurance requirements as set forth in the Supplementary and General Conditions.

**The insurance policy shall not contain any exceptions that would exclude coverage for risks that can be directly or reasonably related to the scope of goods or services in this bid/proposal. A violation of this requirement at any time during the term, or any extension thereof shall be grounds for the immediate termination of any contract entered in to pursuant to this bid/proposal. In order to show that this requirement has been met, along with an insurance declaration sheet demonstrating the existence of a valid policy of insurance meeting the requirements of this bid/proposal, the successful proposer must submit a signed statement from insurance agency of record that the full policy contains no such exception.**

**19. QUALIFICATIONS:**

At the time of submission of the bid, Bidder must possess, and be able to provide City, any and all required Federal, State, County and/or municipal licenses, including but not limited to certificates of competency and occupational licenses. Moreover, upon receipt of the Award of the Contract, Bidder must provide proof of valid licensing for all subcontractors and/or material suppliers hired by the Contractor.

When the Bidder is a Joint Venture, in order to satisfy the construction licensing requirements one member of a Joint Venture must hold a valid state certificate as well as the appropriate county and city license. The Contractor shall be held responsible for assurance that all subcontractors and/or material suppliers hired by the Contractor have the appropriate state certificate and licenses.

**20. PERMITS:**

The Contractor and Subcontractors must obtain Building Permits required for all work covered under this contract as well as any other permit required by any other regulatory agency. The Master Building Permit required by the City shall be obtained by the Contractor but paid for by the City. Any and all other permits required by the City, County, State of Florida, or other regulatory agency shall be obtained and paid for by the Contractor.

The Contractor or Subcontractors shall also be responsible to call for all inspections as required in Section 105 (Inspections) of the latest edition of the Florida Building Code.

- END OF SECTION -

**SECTION 00200****NOTICE OF IMPOSITION OF CONE OF SILENCE**

On **March 8, 2022**, the City of Hollywood, Florida Department of Procurement Services Division issued the following:

**Injection Wells 1 & 2 Mechanical Integrity Testing**

Project Scope: The work to be performed consists of mechanical integrity testing (MIT) on existing injections wells IW-1 and IW-2.

Pursuant to Section 30.15(F) of the Code of Ordinances, a Cone of Silence has been imposed on the items set forth above. The Cone of Silence will continue until the City awards or approves a contract, votes to reject all bids or responses, or otherwise takes action which ends the solicitation. If the City Commission refers the item back to the City Manager and staff for further review, the Cone of Silence shall remain in effect until an award is made, a contract is approved, or the City Commission takes any other action which ends the solicitation.

cc: City Commission Office  
City Manager  
City Clerk (sunshine board)  
Affected department(s)/office(s)

- END OF SECTION -

**ORIGINAL**



**A GRANITE COMPANY**



Prepared For: City of Hollywood,  
City Clerk's Office (City Hall)  
2600 Hollywood Blvd., Suite 221,  
Hollywood, Florida 33022-9045

Solicitation No.: Solicitation IFB-4714-22-OT  
SRWWTP Injection Wells 1 & 2 Mechanical

Date: April 7, 2022  
Time: 3:00 P.M.

**PROPOSAL BY:**  
Layne Christensen Company  
5741 Zip Drive  
Fort Myers, Florida 33905  
PH: 239-275-1029 FX:  
239-275-1025 [www.layne.com](http://www.layne.com)



## SECTION 00300

## PROPOSAL

TO THE MAYOR AND COMMISSIONERS  
CITY OF HOLLYWOOD, FLORIDA

SUBMITTED Layne Christensen Company

Dear Mayor and Commissioners:

The undersigned, as BIDDER, hereby declares that the only person or persons interested in the Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company or parties making a Bid or Proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The BIDDER further declares that he has examined the site of the Work and informed himself fully in regard to all conditions pertaining to the place where the Work is to be done; that he has examined the Drawings and Specifications for the Work and contractual documents relative thereto, including the Notice to Bidders, Instructions to Bidders, Proposal Bid Form, Form of Bid Bond, Form of Contract and Form of Performance Bond, General, Supplementary and Technical Specifications, Addenda, Drawings, and Local Preference Program, Exhibit A, and has read all of the Provisions furnished prior to the opening of bids; and that he has satisfied himself relative to the work to be performed.

The undersigned BIDDER has not divulged to, discussed or compared his bid with other bidders and has not colluded with any other BIDDER of parties to this bid whatever.

If this Proposal is accepted, the undersigned BIDDER proposes and agrees to enter into and execute the Contract with the City of Hollywood, Florida, in the form of Contract specified; of which this Proposal, Instructions to Bidders, General Specifications, Supplementary Conditions and Drawings shall be made a part for the performance of Work described therein; to furnish the necessary bond equal to one hundred (100) percent of the total Contract base bid, the said bond being in the form of a Cash Bond or Surety Bond prepared on the applicable approved bond form furnished by the CITY; to furnish all necessary materials, equipment, machinery, tools, apparatus, transportation, supervision, labor and all means necessary to construct and complete the work specified in the Proposal and Contract and called for in the Drawings and in the manner specified; to commence Work on the effective date established in the "Notice to Proceed" from the ENGINEER; and to complete Mechanical Integrity Testing of each well by the dates specified in Section 00800 and all other Contract Work as stated in the "Notice to Proceed" or pay liquidated damages for each calendar day in excess thereof, or such actual and consequential damages as may result therefrom, and to abide by the Local Preference Ordinance (when applicable).

The BIDDER acknowledges receipt of the following addenda:

No. <u>One</u>	Dated <u>March 21, 2022</u>
No. _____	Dated _____
No. _____	Dated _____



And the undersigned agrees that in case of failure on his part to execute the said Contract and the Bond within ten (10) days after being presented with the prescribed Contract forms, the check or Bid Bond accompanying his bid, and the money payable thereon, shall be paid into the funds of the City of Hollywood, Florida, otherwise, the check or Bid Bond accompanying this Proposal shall be returned to the undersigned.

Attached hereto is a certified check on the

N/A Bank of \_\_\_\_\_

or approved Bid Bond for the sum of

10% of Amount of Bid Dollars (\$) according to the conditions under the Instructions to Bidders and provisions therein.

NOTE: If a Bidder is a corporation, the legal name of the corporation shall be set forth below, together with signature(s) of the officer or officers authorized to sign Contracts on behalf of the corporation and corporate seal; if Bidder is a partnership, the true name of the firm shall be set forth below with the signature(s) of the partner or partners authorized to sign Contracts in behalf of the partnership; and if the Bidder is an individual, his signature shall be placed below; if a partnership, the names of the general partners.

WHEN THE BIDDER IS AN INDIVIDUAL:

N/A  
(Signature of Individual)

N/A  
(Printed Name of Individual)

N/A  
(Address)

\*\*\*\*\*

WHEN THE BIDDER IS A SOLE PROPRIETORSHIP OR OPERATES UNDER A TRADE NAME:

N/A  
(Name of Firm)

N/A  
(Address)

N/A (SEAL)  
(Signature of Individual)

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## WHEN THE BIDDER IS A PARTNERSHIP:

N/A  
(Name of Firm) A PartnershipN/A  
(Address)By: N/A  
(SEAL)  
(Partner)

## Name and Address of all Partners:

N/A  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

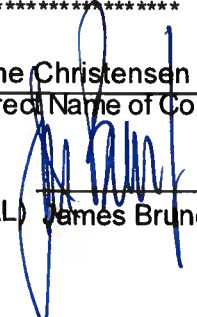
## WHEN THE BIDDER IS A JOINT VENTURE:

N/A  
(Correct Name of Corporation)By: N/A  
(SEAL)  
(Address)N/A  
(Official Title)As Joint Venture  
(Corporate Seal)

Organized under the laws of the State of N/A, and authorized by the law to make this bid and perform all Work and furnish materials and equipment required under the Contract Documents.

\*\*\*\*\*

## WHEN THE BIDDER IS A CORPORATION:

Layne Christensen Company  
(Correct Name of Corporation)By:   
(SEAL) James Bruneio

Area Manager

(Official Title)

5741 Zip Drive, Fort Myers, Florida 33905

(Address of Corporation)

Organized under the laws of the State of Delaware, and authorized by the law to make this bid and perform all Work and furnish materials and equipment required under the Contract Documents.

CERTIFIED COPY OF RESOLUTION OF  
BOARD OF DIRECTORS

Layne Christensen Company

(Name of Corporation)

RESOLVED that James Bruneio

(Person Authorized to Sign)

Area Manager of

(Title) (Name of Corporation)

be authorized to sign and submit the Bid or Proposal of this corporation for the following project:

CITY OF HOLLYWOOD  
Injection Wells 1 & 2 Mechanical Integrity Testing  
**Bid No.: IFB-4714-22-OT**

The foregoing is a true and correct copy of the Resolution adopted by

Layne Christensen Company at a meeting of its Board of  
(Name of Corporation)

Directors held on the 4th day of January, 2022.

By: Title: Kenneth B. Olson, Assistant Secretary

(SEAL)

The above Resolution MUST BE COMPLETED if the Bidder is a Corporation.

- END OF SECTION -



**LAYNE CHRISTENSEN COMPANY**  
**CERTIFICATE OF SECRETARY**

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I, Aaron Storm, Secretary of LAYNE CHRISTENSEN COMPANY, a Delaware corporation (the "Company"), do hereby certify that the following is a true and correct copy of resolutions duly adopted on January 4, 2022; that the Board of Directors acting was duly and regularly elected; and that the resolutions adopted have not been repealed and are still in full force and effect:

**AUTHORIZATION TO EXECUTE DOCUMENTS AND AGREEMENTS**

**RESOLVED**, that the following officers are authorized to execute and deliver on behalf of the Company all documents, agreements and undertakings required in connection with construction contract formation and operations of the Company:

James A. Radich	—	President & Group Manager
Denise C. McClanahan	—	Vice President, Granite Inliner Division
Kent M. Wartick	—	Vice President, Water Resources Division
Gernot E. Penzhorn	—	Vice President, Mineral Services Division
Elizabeth L. Curtis	—	Chief Financial Officer
Kenneth B. Olson	—	Treasurer & Assistant Secretary
Aaron Storm	—	Secretary
Terry Jebavy	—	Group Controller & Assistant Secretary
Nicholas B. Blackburn	—	Assistant Secretary
Brian M. Snelten	—	Assistant Secretary

**RESOLVED FURTHER**, that the authority provided for herein shall be in accordance with applicable policies, procedures, and delegations of authority previously approved and the Granite Construction Incorporated Delegation of Authority Policy then in effect.

**AUTHORIZATION TO ATTEST DOCUMENTS AND AGREEMENTS**

**RESOLVED**, that the following officers are authorized to attest documents, agreements and undertakings required in connection with construction contract formation and operations of the Company:

James A. Radich	—	President & Group Manager
Denise C. McClanahan	—	Vice President, Granite Inliner Division
Kent M. Wartick	—	Vice President, Water Resources Division
Gernot E. Penzhorn	—	Vice President, Mineral Services Division
Elizabeth L. Curtis	—	Chief Financial Officer
Kenneth B. Olson	—	Treasurer & Assistant Secretary
Aaron Storm	—	Secretary
Terry Jebavy	—	Group Controller & Assistant Secretary
Nicholas B. Blackburn	—	Assistant Secretary
Brian M. Snelten	—	Assistant Secretary

**AUTHORIZATION OF APPROVED BORROWERS**

**RESOLVED**, that the below listed individuals are authorized borrowers on behalf of the Company:

Kyle T. Larkin  
Elizabeth L. Curtis  
Kenneth B. Olson

President & Chief Executive Officer  
Executive Vice President, Chief Financial Officer  
Vice President, Treasurer & Assistant Financial Officer

**RESOLVED FURTHER**, that the authority provided herein is subject to limits of authority previously approved and the Granite Incorporated Delegation of Authority and Policy then in effect.

**AUTHORIZATION OF APPROVED CHECK SIGNERS**

**RESOLVED**, that the below listed individuals are authorized to sign checks and drafts drawn on the Company's accounts:

Kyle T. Larkin	President & Chief Executive Officer
Elizabeth L. Curtis	Executive Vice President, Chief Financial Officer
Kenneth B. Olson	Vice President, Treasurer & Assistant Financial Officer
Nicholas B. Blackburn	Senior Director of Corporate Taxation

**RESOLVED FURTHER**, that the authority provided herein is subject to limits of authority previously approved and the Granite Incorporated Delegation of Authority and Policy then in effect.

Dated: January 4, 2022

  
\_\_\_\_\_  
Aaron Storm



Form  
Temporary Authorization

This Temporary Authorization is made pursuant to, and in accordance with, GMS [FOA-SP-001 Limits of Authority Procedure](#) ("Procedure"). The undersigned authorizes and appoints James Bruneio to bid projects, provide proposals, execute contract documents including change orders and purchase orders, and other necessary functions to advance projects and opportunities within their authority as dictated by the Limits of Authority Matrix Exhibit C for the period from January 1, 2022 through and including June 30, 2022.

This authority is subject to the terms and conditions of the Policy, the limits of authority granted to the undersigned pursuant to such Policy, the [FOA-GD-001 Limits of Authority Matrix](#) (Exhibits A & B & C ) and all other applicable GMS policies.

Comments: Temporary Authorization expires June 30, 2022

Dated: January 7, 2022

Authorizing Individual: \_\_\_\_\_



Print Name: Kent M. Wartick

Instructions:

Form to be retained by authorizing individual and designee.

This form may be used to delegate signature authority for a bid, including an electronic bid. The comments section may be used to further identify the specific project. Please upload an executed copy to the opportunity in Granite's bidding system (CAM360).

SECTION 00301  
**CITY OF HOLLYWOOD**  
**DEPARTMENT OF PUBLIC UTILITIES**  
**ENGINEERING AND CONSTRUCTION SERVICES DIVISION**  
**PROPOSAL BASE BID FORM**

Bid No.: IFB-4714-22-OT  
 Project Name: Injection Wells 1 & 2 Mechanical Integrity Testing

***BASE BID:***

<u>No.</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Total</u>
1	Perform mechanical integrity testing on both IW-1 and IW-2 for lump sum price of:  <u>One Hundred Fifty Thousand</u> Dollars and <u>No</u> Cents	1	LS	---	<u>\$150,000.00</u>
2	Consideration for Indemnification for the lump sum price of: <u>Ten</u> Dollars and <u>No</u> Cents	---		---	<u>\$10.00</u>
3	Dedicated cost allowance for work as directed and upon authorization by the City due to undefined conditions of: <u>Fifty thousand</u> Dollars and <u>No</u> Cents	---		---	<u>\$50,000.00</u>
<b>BASE BID TOTAL FOR COMPLETE PROJECT:</b>				<u>\$ 200,010.00</u>	

**BASE BID TOTAL IN WRITING:** Two Hundred Thousand Ten Dollars and Zero Cents

**NAME OF BIDDER:** Layne Christensen Company

**NOTES:**

1. REFER TO SECTION 01025 FOR ADDITIONAL DESCRIPTIONS OF ITEMS.
2. SUBSTANTIAL COMPLETION TIME AND PROJECT CLOSEOUT TIME FOR THE WORK SHALL BE AS DEFINED IN THE PROJECT SCHEDULE IN THE SUPPLEMENTARY GENERAL CONDITIONS (SGC'S).
3. THE CITY OF HOLLYWOOD REQUIRES THE CONTRACTOR TO PROVIDE THE UNIT PRICE/TOTAL IN TEXT AS WELL AS NUMERICAL FORMAT FOR EACH LINE ITEM LISTED IN THE PROPOSAL BID FORMS. FAILURE TO PROVIDE UNIT PRICE/TOTAL FOR EACH LINE ITEM IN TEXT AS WELL AS NUMERICAL FORMAT MAY RENDER THE ENTIRE BID PACKAGE NON-RESPONSIVE.
4. THE CITY OF HOLLYWOOD WILL EVALUATE THE BID PROPOSALS AND DETERMINE THE LOWEST, RESPONSIVE, RESPONSIBLE BIDDER FOR THE TOTAL BASE BID (ITEMS 1 THROUGH 3). IT IS THE CITY OF HOLLYWOOD'S INTENT TO AWARD THE PROJECT BASED UPON THE TOTAL BASE BID.

- END OF SECTION -



## SECTION 00410

## APPROVED BID BOND

(Construction)

STATE OF FLORIDA

KNOW ALL MEN BY THESE PRESENTS: Travelers Casualty and Surety  
That we Layne Christensen Company, as Principal, and Company of America, as

Surety, are held and firmly bound unto the City of Hollywood in the sum of \_\_\_\_\_

Ten Percent (10%) of Bid Amount Dollars (\$ 10% of Bid Amount ) lawful money

of the United States, amounting to 10% of the total Bid Price, for the payment of said sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal has submitted the accompanying bid, dated April 7, 2022 ~~146~~ 20 for

**Injection Wells 1 & 2 Mechanical Integrity Testing****Bid No.: IFB-4714-22-OT**

NOW, THEREFORE, if the principal shall not withdraw said bid within 90 days after date of the same and shall within ten days after the prescribed forms are presented to him for signature, enter into a written contract with the CITY, in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, and provide the necessary Insurance Certificates as may be required for the faithful performance and proper fulfillment of such Contract, then this obligation shall be null and void.

## Approved Bid Bond

In the event of the withdrawal of said bid within the specified period, or the failure to enter into such contract and give such bond and insurance within the specified time, the principal and the surety shall pay to the City of Hollywood the difference between the amount specified in said bid and such larger amount for which the City of Hollywood may in good faith contract with another party to perform the work and/or supply the materials covered by said bid.

IN WITNESS WHEREOF, the above bound parties have executed this statement under their several seals this 5th  
day of April, 2022, ~~20~~, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WHEN THE PRINCIPAL IS AN INDIVIDUAL:

Signed, sealed and delivered in the presence of: N/A

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Signature of Individual

\_\_\_\_\_  
Address

\_\_\_\_\_  
Printed Name of Individual

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Address

Approved Bid Bond

WHEN THE PRINCIPAL IS A CORPORATION:

Attest:

  
~~Secretary~~

Kenneth B. Olson, Assistant Secretary

Layne Christensen Company

Name of Corporation

585 West Beach Street

Business Address

Watsonville, CA 95076

By:

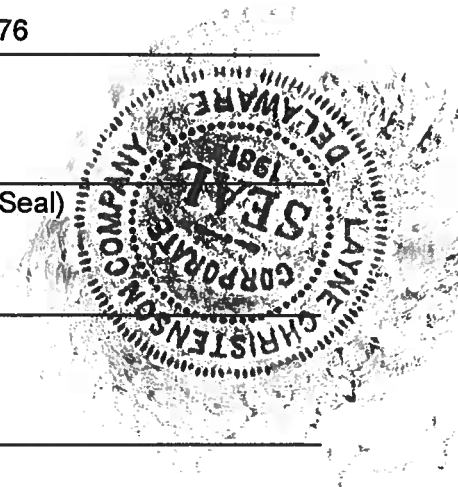
(Affix Corporate Seal)

James Bruneio

Printed Name

Area Manager

Official Title

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, Kenneth B. Olson, <sup>Assistant-</sup>certify that I am the secretary of the Corporation named as Principal in the attached bond; that James Bruneio who signed the said bond on behalf of the Principal, was then Area Manager of said Corporation; that I know his signature, and his signature thereto is genuine and that said bond was duly signed, sealed and attested for and on behalf of said Corporation by authority of its governing body.

 (SEAL)

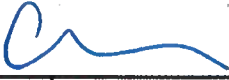
~~Secretary~~

Kenneth B. Olson, Assistant Secretary

## Approved Bid Bond

TO BE EXECUTED BY CORPORATE SURETY:

Attest:

  
Secretary  
 Ashley Stinson, Attorney-In-Fact



Travelers Casualty and Surety Company of America

Corporate Surety1 Tower SquareBusiness AddressHartford, CT 06183BY: 

(Affix Corporate Seal)

Isabel Barron, Attorney-In-FactAttorney-in-FactAlliant Insurance Services, Inc.Name of Local Agency2701 N. Rocky Point Dr., Suite 960Business Address Tampa, FL 33607

## STATE OF FLORIDA

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared, \_\_\_\_\_  
 \_\_\_\_\_ to me well known, who being by me first duly sworn upon oath  
 says that he is the attorney-in-fact for the \_\_\_\_\_ and  
 that he has been authorized by \_\_\_\_\_ to execute the forgoing bond  
 on behalf of the CONTRACTOR named therein in favor of the City of Hollywood, Florida.  
 Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

See Attached Acknowledgment\_\_\_\_\_  
Notary Public, State of Florida

My Commission Expires:

- END OF SECTION -

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

## ACKNOWLEDGMENT

State of California  
County of Santa Cruz

On April 5, 2022 before me, Maria Gomez, Notary Public  
(insert name and title of the officer)

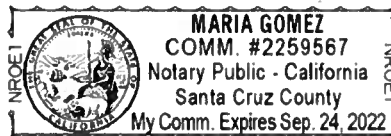
personally appeared Isabel Barron & Ashley Stinson,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Maria Gomez, Notary Public



(Seal)



**Travelers Casualty and Surety Company of America**  
**Travelers Casualty and Surety Company**  
**St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Isabel Barron** of **WATSONVILLE, California**, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, 2021.



State of Connecticut

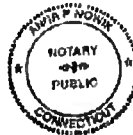
City of Hartford ss.

By:   
Robert L. Raney, Senior Vice President

On this the **21st** day of **April**, 2021, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, 2026



  
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **April 5**, 2022



  
Kevin E. Hughes, Assistant Secretary



**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.**  
**Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.**





**Travelers Casualty and Surety Company of America**  
**Travelers Casualty and Surety Company**  
**St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Ashley Stinson** of **WATSONVILLE**, **California**, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, 2021.



State of Connecticut

City of Hartford ss.

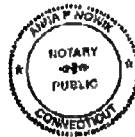
By: \_\_\_\_\_

*Robert L. Raney*  
 Robert L. Raney, Senior Vice President

On this the **21st** day of **April**, 2021, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, 2026



*Anna P. Nowik*  
 Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power shall be understood and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **April 5**, 2022



*Kevin E. Hughes*  
 Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.**  
**Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.**

SECTION 00420  
INFORMATION REQUIRED FROM BIDDERS  
GENERAL INFORMATION

The Bidder shall furnish the following information. Failure to comply with this requirement may cause its rejection. Additional sheets shall be attached as required.

1. Contractor's Name/Address: Layne Christensen Company  
5741 Zip Drive, Fort Myers, Florida 33905  
\_\_\_\_\_
2. Contractor's Telephone Number: 239-275-1029  
and e-mail address: jim.bruneio@gcinc.com  
\_\_\_\_\_
3. Contractor's License (attach copy): See Attached Licenses  
Primary Classification: GC & Water Well  
Broward County License Number (attach copy): N/A  
\_\_\_\_\_
4. Number of years as a Contractor in construction work of the type involved in this  
Contract: Over 140 + years  
\_\_\_\_\_
5. List the names and titles of all officers of Contractor's firm:  
See Attached List  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Name of person who inspected site or proposed work for your firm:  
Name: Carl Scarborough  
Date of Inspection: April 6, 2022  
\_\_\_\_\_
7. List a minimum of three Mechanical Integrity Tests you have completed within the past  
five years for injection wells having a casing depth of at least 2,500 feet below land  
surface and provide Owner contact information.  
See Attached Reference List  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



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

No

9. In addition to the work listed in Item 7, name three (3) individuals or corporations for which you have performed work and to which you refer:

See Attached References

10. List the following information concerning all contracts on hand as of the date of submission of this proposal (in case of co-venture, list the information for all coventures).

Name of Project	City	Total Contract Value	Contracted Date of Completion	% Completion to Date
-----------------	------	----------------------------	-------------------------------------	----------------------------

See Attached References

(Continue list on inset sheet, if necessary)

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

See Attached List

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

None

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**NOTE:**

If requested by CITY, the Bidder shall furnish a notarized financial statement, references and other information, sufficiently comprehensive to permit an appraisal of its current financial condition.

**LIST OF SUBCONTRACTORS**

The Bidder shall list below the name and address of each Subcontractor who will perform work under this Contract in excess of one-half percent of the total bid price, and shall also list the portion of the work which will be done by such Subcontractor. After the opening of Proposals, changes or substitutions will be allowed with written approval of the City of Hollywood. Subcontractors must be properly licensed and hold a valid Hollywood Certificate of Competency.

	<b>Work to be Performed</b>	<b>Subcontractor's Name / Address</b>
1.	None	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

NOTE: Attach additional sheets if required.

- END OF SECTION -

## SECTION 00435

## LOCAL PREFERENCE

## (EXHIBIT "A")

Pursuant to §38.50 of the City of Hollywood *Code of Ordinances*, the City shall grant a preference to local Hollywood vendors if their initial bid is within 5% of the bid of the lowest responsive responsible bidder that is a non-local Hollywood vendor. The preference shall allow the local Hollywood vendor to submit a second and final offer, which must be at least 1% less than the bid of the lowest responsive responsive non-local Hollywood vendor to be awarded. The local Hollywood vendor shall have the burden of demonstrating that it maintains a permanent place of business with full-time employees within the City limits and has done so for a minimum of one (1) year prior to the date of issuance of a bid or proposal solicitation within Hollywood, Florida. All supporting documentation (e.g. City of Hollywood valid local business tax receipt) for local preference eligibility must be received with the bid package prior to the bid opening date and time.

N/A

## SECTION 00495

## TRENCH SAFETY FORM

This form must be completed and signed by the Bidder.

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

Bidder acknowledges that the Florida Trench Safety Act, Section 553.60 et. seq., which became effective October 1, 1990, shall be in effect during the period of construction of the project. The Bidder by signing and submitting the bid is, in writing, assuring that it will perform any trench excavation in accordance with applicable trench safety standards. The Bidder further identifies the following separate item of cost of compliance with the applicable trench safety standards as well as the method of compliance:

Method of Compliance

Cost

Total \$ 0.00

Bidder acknowledges that this cost is included in the applicable items of the Proposal and in the Grand Total Bid Price. Failure to complete the above will result in the bid being declared non-responsive.

The Bidder is, and the Owner and Engineer are not, responsible to review or assess Bidder's safety precautions, programs or costs, or the means, methods, techniques or technique adequacy, reasonableness of cost, sequences or procedures of any safety precaution, program or cost, including but not limited to, compliance with any and all requirements of Florida Statute Section 553.60 et. seq. cited as the "Trench Safety Act". Bidder is, and the owner and Engineer are not, responsible to determine if any safety related standards apply to the project, including but not limited to, the "Trench Safety Act".

C. Scarbrough  
Witness Signature

Carl Scarbrough  
Witness Printed Name

5741 Zip Drive, Fort Myers, FL 33905  
Witness Address

April 7, 2022  
Date

James Bruneio  
Contractor's Signature

James Bruneio  
Printed Name

Area Manager  
Title

April 7, 2022  
Date

- END OF SECTION -



# LCC - List of Officers

Layne Christensen Company  
5741 Zip Drive  
Fort Myers, Florida 33905  
PH: 239.275.1029  
FX: 239.275.1025  
[www.layne.com](http://www.layne.com)



A GRANITE COMPANY



## Layne Christensen Company List of Officers

Name	Present Office Position
Radich, James A.	President Group Manager
McClanahan, Denise C.	Vice President Granite Inliner Division
Wartick, Kent M.	Vice President Water Services Division
Penzhorn, Gernot E.	Vice President Mineral Services Division
Curtis, Elizabeth L.	Chief Financial Officer
Olson, Kenneth B.	Treasurer Assistant Secretary
Storm, Aaron (NMN)	Secretary
Jebavy, Terry (NMN)	Group Controller Assistant Secretary
Blackburn, Nicholas B.	Assistant Secretary
Snelten, Brian M.	Assistant Secretary

(NMN) = No Middle Name





# LICENSES

LAYNE CHRISTENSEN COMPANY  
5741 Zip Drive  
Fort Myers, Florida 33905  
PH: 239.275.1029  
FX: 239.275.1025  
[www.layne.com](http://www.layne.com)



A GRANITE COMPANY



**STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL**

**RADIOACTIVE MATERIALS LICENSE**

Pursuant to Chapter 404, Florida Statutes, and Chapter 64E-5, Florida Administrative Code (F.A.C.), and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to receive, acquire, possess, and transfer the radioactive material(s) designated below and to use such radioactive material(s) for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders of the state of Florida, Department of Health now or hereafter in effect and to any conditions specified below.

<p style="text-align: center;"><b>Licensee</b></p> <p><b>1. Name:</b>      <b>LAYNE CHRISTENSEN COMPANY</b></p>	<p><b>3. License Number:</b>      <b>4300-1</b></p> <p>is hereby renewed in its entirety with reference to application dated January 18, 2022, February 25, 2022.</p>
<p><b>2. Address:</b>      <b>5741 Zip Drive Ft. Myers, FL 33905</b></p>	<p><b>4. Expiration Date:</b>      <b>12/31/2026</b></p> <p><b>5. Category:</b>      <b>3I(I)</b></p>

<b>6.    Radioactive Material      (element and mass no.)</b>	<b>7.    Chemical and/or Physical Form</b>	<b>8.    Maximum Quantity Licensee May      Possess at Any One Time</b>
<b>A.    Iodine 131</b>	<b>A.    Solution</b>	<b>A.    100 millicuries total activity,      single vials not to exceed      40 millicuries, each</b>

<b>9.    Authorized Use</b>
<p><b>A.    To be used in a Probe Technology, Inc., part number 050-F0400-000, 1 11/16" motorized      ejector tool for the performance of subsurface tracer studies.</b></p>

<b>CONDITIONS</b>
<p><b>10.    A.    The authorized place of use shall be temporary job sites of the licensee throughout the              state of Florida. This condition does not prohibit use in other agreement states and              states under the jurisdiction of the U.S. Nuclear Regulatory Commission (NRC) under              reciprocity which has been approved by the NRC or an agreement state.</b></p> <p><b>B.    The authorized place of storage is the licensee's facility located at the address in Item 2,          and at temporary job sites.</b></p>

**STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL**

11. Failure to comply with the provisions of this license is a felony of the third degree pursuant to section 404.161, Florida Statutes. Also, violations may warrant an administrative fine of up to \$1,000.00 per violation per day, pursuant to section 404.162, Florida Statutes.
12.
  - A. Licensed material shall be used by, or under the supervision and in the physical presence of Luis F. Morey.
  - B. The radiation safety officer is Luis F. Morey.
13. The licensee shall comply with the provisions of Chapter 64E-5, F.A.C., Part IX, "Notices, Instructions and Reports to Workers; Inspections" and Part III, "Standards for Protection Against Radiation."
14. The licensee shall not transfer possession or control of radioactive material, or products containing radioactive material as a contaminant except:
  - A. By transfer to a specifically licensed recipient; or
  - B. As provided otherwise by specific provision of this license pursuant to the requirements of Chapter 64E-5, F.A.C.
15. Radioactive material transported on public thoroughfares shall be packaged, prepared for shipment, and transported in accordance with Title 49, Code of Federal Regulations and Chapter 64E-5, F.A.C.
16. Each source holder or logging tool containing radioactive material shall bear a durable, legible, and clearly visible marking or label bearing the conventional radiation symbol and the following warning: DANGER (or CAUTION) - RADIOACTIVE.
17. Individuals involved in operations which utilize, at any one time or over a 3-month period, radioiodine in an unsealed form that exceeds activities specified in table 1 shall have bioassays performed at the frequency specified in 64E-5.1320(1), F.A.C. Records of the bioassays shall be maintained for inspection by the department for 3 years.

**STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL**

18. A. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, 8 and 9 of this license in accordance with statements, representations and procedures contained in the licensee's application dated January 18, 2022, signed by Kent M. Wartick, Vice President and Division Manager, and correspondence dated:  
February 25, 2022 (completed policy and procedures), signed by Kent M. Wartick, VP.
- B. The licensee shall comply with all applicable requirements of Chapter 64E-5, Florida Administrative Code, and these regulations shall supersede the licensee's statements in applications or correspondence, unless the statements are more restrictive than the regulations.

**For the Bureau of Radiation Control:**

**ORIGINAL SIGNED BY:  
GIOVANNA MANNING**

**Issuance Date:** MAR 07 2022

**Giovanna Manning  
Environmental Specialist III  
4052 Bald Cypress Way – Bin C21  
Tallahassee, FL 32399-1741  
850-245-4545**

A party whose substantial interest is affected by this order may petition for an administrative hearing pursuant to sections 120.569 and 120.57, Florida Statutes. Such proceedings are governed by Rule 28-106, Florida Administrative Code. A petition for administrative hearing must be in writing and must be received by the Agency Clerk for the Department, within twenty-one (21) days from the receipt of this order. The address of the Agency Clerk is: Agency Clerk, 4052 Bald Cypress Way, BIN # A02, Tallahassee, Florida 32399-1703. The Agency Clerk's facsimile number is 850-410-1448. A copy of the petition should also be sent to: Bureau Chief, Bureau of Radiation Control, 4052 Bald Cypress Way, BIN # C21, Tallahassee, FL 32399-1741. The Bureau Chief's facsimile number is 850-487-0435. Mediation is not available as an alternative remedy. Your failure to submit a petition for hearing within 21 days from receipt of this order will constitute a waiver of your right to an administrative hearing, and this order shall become a "final order." Should this order become a final order, a party who is adversely affected by it is entitled to judicial review pursuant to Section 120.68, Florida Statutes. Review proceedings are governed by the Florida Rules of Appellate Procedure. Such proceedings may be commenced by filing one copy of a Notice of Appeal with the Agency Clerk of the Department of Health and a second copy, accompanied by the filing fees required by law, with the Court of Appeal in the appropriate District Court. The notice must be filed within 30 days of rendition of the final order.

License Number: 4300-1  
Amendment No.: 6  
Control Number: 20220121-0120

**HQ COPY**  
Page 3 of 3 Page(s)

Category: [31(I)]  
Expiration Date: 12/31/2026

# The State of Florida

Has Determined That

James Bruneio Jr.

Is Qualified As A

## *Water Well Contractor*

Pursuant To Chapter 373, Florida Statutes

In the State of Florida

And Hereby Issues License Number

11392

Issued By  
South Florida Water Management District



Water Well Contractor Licensing, Water Use

This 18<sup>th</sup> Day of March 2022







**Lee County, Florida**  
**Department of Community Development**  
**Certificate of Use**  
**New Occupancy**

**Issued Date:** 12/15/2021 **PERMIT NUMBER:** OCC2021-00911

**Owner Address:** 17121 PRIMA VIERA CIR CAPE CORAL, FL 33909

**Job Address:** 5741 ZIP DR, FORT MYERS, FL 33905

**Applicant Name:** Miquel Martinez

**Business Location:** 5741 ZIP DR. FORT MYERS. FL 33905

**Business Name:** Layne Christensen Company

**Description:** Water well drilling & servicing. Mon-Fri 7a-5p.

**Strap:** 10-44-25-10-00000.1620

**Zoning:** **Fire District:** Tice

**In conformity with section 106.1 Standard Building Code, authorization to occupy is granted as noted herein.**

**BUILDING OFFICIAL**

**THIS CERTIFICATE MUST BE POSTED IN YOUR OFFICE ALONG WITH YOUR BUSINESS TAX RECEIPT**



## Local Business Tax Receipt

Dear Business Owner:

Your 2021-2022 Lee County Local Business Tax Receipt is attached below for account number **1704672**.

If there is a change in one of the following, refer to the instructions on the back of this receipt.

- Business name
- Ownership
- Physical location
- Business closed

This is not a bill. Detach the bottom portion and display in a public location.

I hope you have a successful year.

Sincerely,

*R. Nalle Branning*

Lee County Tax Collector

### 2021 - 2022 LEE COUNTY LOCAL BUSINESS TAX RECEIPT

**Account Number: 1704672**

**State License Number: CGC1523303**

*If state license has changed, contact our office at 239.533.6000*

**Location:**

5061 LUCKETT RD  
FT MYERS FL 33905

LAYNE CHRISTENSEN COMPANY  
SHEMWELL KEVIN D  
5061 LUCKETT RD  
FT MYERS FL 33905

**Account Expires: September 30, 2022**

May engage in the business of:

**GENERAL CONTRACTOR-CERTIFIED**

**THIS LOCAL BUSINESS TAX RECEIPT IS NON REGULATORY**

Payment Information:

PAID 600631-9-1

09/23/2021 07:39 AM

\$50.00



## Local Business Tax Receipt

Dear Business Owner:

Your 2021-2022 Lee County Local Business Tax Receipt is attached below for account number **1901914**.

If there is a change in one of the following, refer to the instructions on the back of this receipt.

- Business name
- Ownership
- Physical location
- Business closed

This is not a bill. Detach the bottom portion and display in a public location.

I hope you have a successful year.

Sincerely,

Lee County Tax Collector

### 2021 - 2022 LEE COUNTY LOCAL BUSINESS TAX RECEIPT

Account Number: **1901914**

Account Expires: **September 30, 2022**

**Location:**

5061 LUCKETT RD  
FT MYERS FL 33905

LAYNE CHRISTENSEN COMPANY  
MAGNIN MICHAEL S  
5061 LUCKETT RD  
FT MYERS FL 33905

May engage in the business of:

**WATER WELL CONTRACTOR**

**THIS LOCAL BUSINESS TAX RECEIPT IS NON REGULATORY**

Payment Information:

**PAID** 601644-2-1

10/05/21 09:56:28 AM

\$53.00





## Local Business Tax Receipt

Dear Business Owner:

Your 2021-2022 Lee County Local Business Tax Receipt is attached below for account number **1704672**.

If there is a change in one of the following, refer to the instructions on the back of this receipt.

- Business name
- Ownership
- Physical location
- Business closed

This is not a bill. Detach the bottom portion and display in a public location.

I hope you have a successful year.

Sincerely,

*R. Nalle Branning*

Lee County Tax Collector

### 2021 - 2022 LEE COUNTY LOCAL BUSINESS TAX RECEIPT

**Account Number: 1704672**

**State License Number: CGC1523303**

*If state license has changed, contact our office at 239.533.6000*

**Location:**

5061 LUCKETT RD  
FT MYERS FL 33905

LAYNE CHRISTENSEN COMPANY  
SHEMWELL KEVIN D  
5061 LUCKETT RD  
FT MYERS FL 33905

**Account Expires: September 30, 2022**

May engage in the business of:

**GENERAL CONTRACTOR-CERTIFIED**

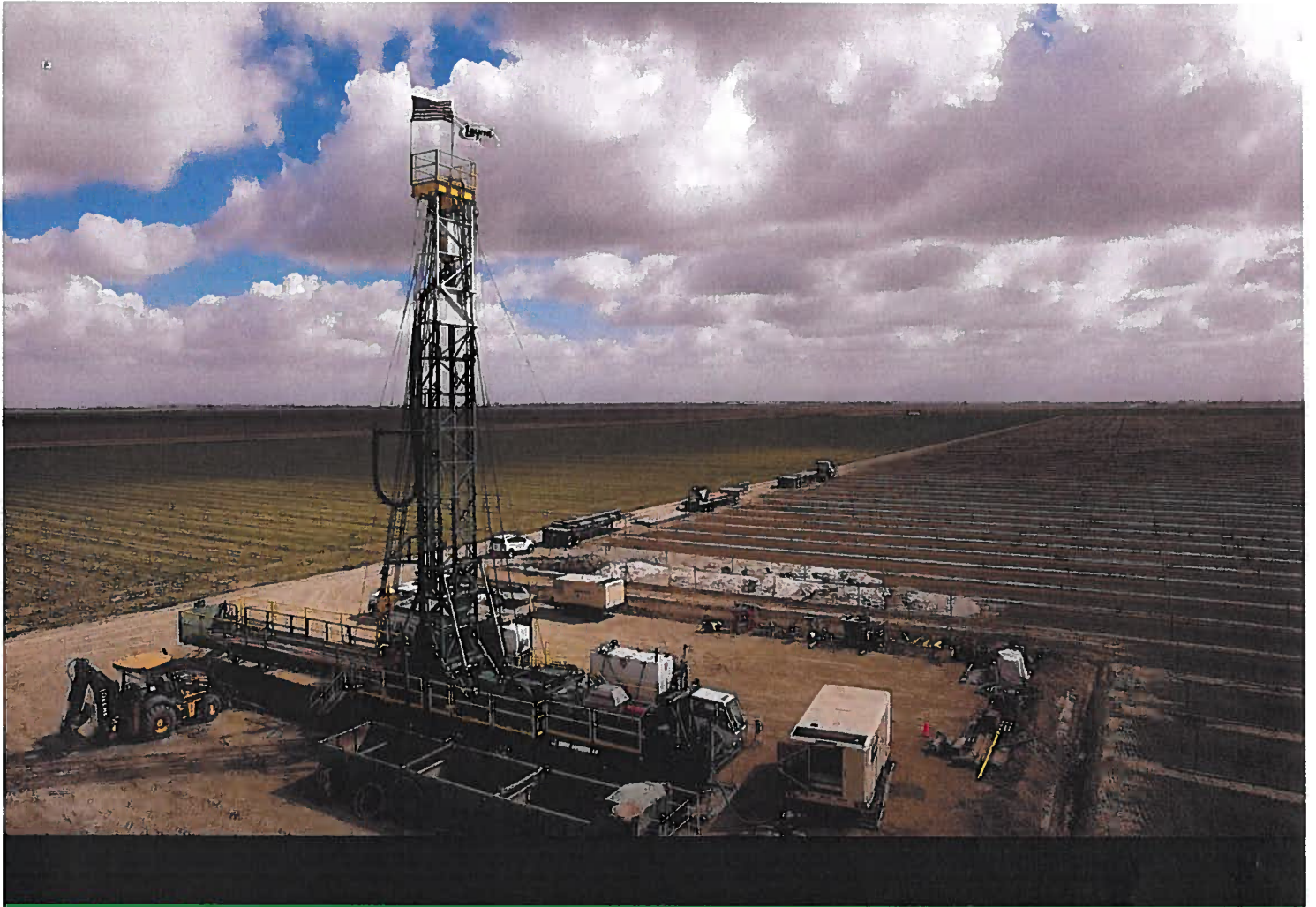
**THIS LOCAL BUSINESS TAX RECEIPT IS NON REGULATORY**

Payment Information:

**PAID** 600631-9-1

09/23/2021 07:39 AM

\$50.00



# REFERENCES

SHORT LIST OF COMPLETED JOBS, ADDITIONAL REFERENCES CAN BE PROVIDED, UPON REQUEST

LAYNE CHRISTENSEN COMPANY  
5741 ZIP DRIVE  
FORT MYERS, FL 33905  
PH: 239.275.1029  
FX: 239.275.1025  
[www.layne.com](http://www.layne.com)





## ANSWER # 10 REFERENCES

North RO WTP IW-2

City of Cape Coral

\$62,500

7/26/2022

0%

Cape Coral Acid

City of Cape Coral

\$1,062,401.20

Annual Contract – Renews 3/23/2022

15%

Mosaic Greenbay Monitoring Wells

Mosaic LLC

1,001,901.98

5/7/2022

80%

SCRWTP IW-1 and IW-2 Acid and MIT

Collier County Public Utilities Division

\$321,756.00

5/30/2022

45%

February 11, 2019

Re: Reference of Well Services Experience – Layne

To Whom It May Concern:

This letter is intended to serve as verification that Layne has provided well services for at least seven years for projects RMA GeoLogic Consultants have served as a consultant for local Utilities and Municipalities in Florida. During that time and projects Layne has demonstrated knowledge of all aspects of situations commonly encountered during rehabilitation services of water supply wells and injection wells. Layne has always been conscientious in the execution of the work, maintained equipment in good operating condition, and has been observant of regulatory and personnel safety conditions. The result has, without exception, been excellently serviced wells. Therefore, I have no hesitation in recommending Layne's well services. Two recently completed projects are referenced below

Client: Gasparilla Island Water Association

Project: Redevelopment Services for Deep Well DW8

Scope: Removed permanent submersible pump from the well, installed an air line tubing in the well, air developed the well, removed air line, installed temporary submersible pump, pump developed well to the satisfaction of the consultant, removed temporary pump, reinstalled permanent pump, and chlorinated the well.

Start Date: 10/15/18

Completion Date: 10/24/18

Client: Lee County Utilities

Project: Acidization of Three Upper Floridan Aquifer Wells

Scope: Removed vertical turbine pumps, conducted geophysical logs, connected hoses to the wellhead, pumped 30,000 gallons of 2% hydrochloric acid solution, pump developed well to the satisfaction of the consultant, and chlorinated the well.

Start Date: 11/1/18

Completion Date: 12/7/18

Sincerely,



Omar Rodriguez, P.G., P.E.

FL Licensed Professional Geologist #2273

FL Licensed Professional Engineer #80330

President



**ASRus, LLC**  
13329 N. Armenia Avenue  
Tampa, FL 33613  
**Tel 813.264.9100**

February 12, 2019

To Whom It May Concern:

Please find this letter of recommendation on behalf of Layne, a brand of the Granite Construction Company Inc. Layne was contracted to ASRus, LLC to provide geophysical logging services for the City of St. Petersburg's Northeast Water Reclamation Facility (NEWRF) and Southwest Water Reclamation Facility (SWWRF) injection wells mechanical integrity tests (MITs) completed in June-July 2018. ASRus, LLC is a small hydrogeologic consulting firm and therefore it is often difficult to subcontract to companies the size of Layne, however we experienced no difficulty in negotiating an agreement, largely based on our years of experience working with Layne. Layne has always demonstrated a high level of expertise and competency within the Florida drilling industry. They successfully completed the MITs for the City of St. Petersburg on time and within budget and provided the same professionalism and reliability we have come to expect from Layne. We look forward to opportunities to work with them on future projects.

Please feel free to contact me if you have any additional question regarding this letter of recommendation.

Sincerely,

ASRus, LLC

Pete Larkin, P.G.



4600 Military Trail, Suite 116  
Jupiter, Florida 33458  
Phone: 561-891-0763

February 11, 2019

**RE: Layne Christensen, Inc. Letter of Recommendation**

To Whom It May Concern:

I have worked with Layne Christensen, Inc. (serving as the client's representative) on numerous Class I deep injection well logging, plugging and abandonment and well rehabilitation projects. They have proven to be highly experienced well service contractors with excellent problem-solving skills. Their highly-experienced personnel (I have worked with some of the same personnel for 9 years) have repeatedly proven to be innovative and dedicated to client satisfaction.

Layne Christensen, Inc. has consistently shown a desire to work as a team with the owner and owner's representative. Their attention to the fine details on geophysical logging and other well services results in a satisfied client.

In short, Layne Christensen, Inc. is a very high quality well service contractor that I would not hesitate to recommend to anyone seeking a qualified and experienced deep injection well service contractor.

Should you have any questions regarding the above, please contact me at (561) 891-0763.

Sincerely,

McNabb Hydrogeologic Consulting, Inc.

A handwritten signature in blue ink, appearing to read "David McNabb", is written over the company name.

David McNabb, P.G.  
President





John E. Manning  
*District One*

Cecil L.  
Pendergrass  
*District Two*

Larry Kiker  
*District Three*

Brian Hamman  
*District Four*

Frank Mann  
*District Five*

Roger Desjarlais  
*County Manager*

Richard Wesch  
*County Attorney*

Tyler S. Weinand, P.G.  
Public Works Project Manager  
Lee County Utilities  
1500 Monroe Street, Third Floor  
Fort Myers, Florida 33901  
tweinand@leegov.com  
(239)220-1073

February 12, 2019

Dear Sir or Madam:

I am pleased to provide a letter of reference for the Fort Myers, Florida based Repair and Installation (R&I) staff of Layne, a Granite Company. Layne provided and continues to provide R&I services for Lee County Utilities (LCU) production wells and Underground Injection Control (UIC) wells. I have contracted with Layne to provide R&I service since early in my tenure with LCU, with their first project I managed in Spring 2016. Additionally, I am aware of the R&I staff providing services prior to my employment with LCU.

A few of the services I have contracted with Layne to complete are, but not limited to the following:

- Submersible electric motor replacement within a flowing artesian production well;
- UIC Class I well Mechanical Integrity Testing;
- Production well chemical treatment with low concentration hydrochloric acid to improve production well specific capacity;
- Geophysical logging; and
- Other miscellaneous services.

The Layne R&I staff provide a level of service which is easy to manage. The General Manager, David Tormoehlen, is highly responsive to the needs and requests of LCU. Furthermore, I trust Field Superintendents David Bauer and Carl Whittenborn to complete projects efficiently and properly with minimal oversight from LCU staff.

Thank you for the opportunity to provide a reference for the Fort Myers, Florida based R&I staff of Layne. Should you need any additional information, have any questions, or comments please do not hesitate to contact me.

Very Respectfully,

*T. Weinand* 2/12/19

Tyler S. Weinand, P.G.



February 12, 2019

To Whom It May Concern:

Subject: Layne Letter of Reference

SCS Engineers conducted the contract management and technical supervision of a Class 1 injection well, dual zone monitoring well and pad monitoring wells at the Countyline Corporate Park site in Hialeah, Florida. This project occurred from September of 2017 to March of 2018. Layne was the contractor and conducted all the drilling, logging and testing for this project. Post drilling, they also did the abandonment of the pad monitoring wells.

Layne did an excellent job, executing the scope of work in a professional manner and all the required agency submittals were supplied as required. Their project team communicated well and worked collaboratively with our field staff to complete this project.

Please call or email me at [mmarkley@scsengineers.com](mailto:mmarkley@scsengineers.com) if you have any questions.

Kindest Regards,



Monte R. Markley, P.G.

Vice President/Project Director

SCS Engineers





## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Peele-Dixie IW-1	July 2020	City of Fort Lauderdale Tanisha Boynton SPS 100 N. Andrews Avenue Fort Lauderdale, FL 33301 Phone: 954-828-4797 Fax: 954-828-5074 Email: tboynton@fortlauderdale.gov	Hazen and Sawyer, P.C. Albert Muniz, P.E. 2101 NW Corporate Blvd., Suite 301 Boca Raton, FL 33431 Phone: 561-997-8070 Fax: 561-997-8159 Email: amuniz@hazenandsawyer.com	24" 3,000'	16" FRP 2,983'	C	3,500'	P
Punta Gorda WWTP IW-1	May 2020	City of Punta Gorda Julie Rogan-Sutter Senior P A 326 West Marion Ave. Punta Gorda, FL 33950 Phone: 941-575-3366 JRogan-Sutter@CityofPuntaGordaFL.com	Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdsmith.com	20" 2,500'	N/A	N/A	2,850'	P
Miramar West ROWTP IW-1	May 2020	City of Miramar Alicia Ayum Procurement Director 2300 Civic Center Place Miramar, FL 33025 Phone: (954) 602-3054 Fax: (954) 602-3525 Email: aayum@miramarfl.gov	AECOM Michael Bennett, PG 2090 Palm Beach Lakes Blvd Suite 600 West Palm Beach, FL 33409 Phone: 561-684-3375 Fax: Email: michael.bennett@aecom.com	16" 3,088'	9" FRP 3,033'	C	3,180'	P
Miramar West ROWTP IW-2	May 2020	City of Miramar Alicia Ayum Procurement Director 2300 Civic Center Place Miramar, FL 33025 Phone: (954) 602-3054 Fax: (954) 602-3525 Email: aayum@miramarfl.gov	AECOM Michael Bennett, PG 2090 Palm Beach Lakes Blvd Suite 600 West Palm Beach, FL 33409 Phone: 561-684-3375 Fax: Email: michael.bennett@aecom.com	16" 3,046'	9" FRP 2,970'	C	3,187'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Miramar II WWRF IW-1	April 2020	City of Miramar Alicia Ayum Procurement Director 2300 Civic Center Place Miramar, FL 33025 Phone: (954) 602-3054 Fax: (954) 602-3525 Email: aayum@miramarfl.gov	Hazen and Sawyer, P.C. Albert Muniz, P.E. 2101 NW Corporate Blvd., Suite 301 Boca Raton, FL 33431 Phone: 561-997-8070 Fax: 561-997-8159 Email: amuniz@hazenandsawyer.com	24" 2,950'	N/A	N/A	3,001'	P
Miramar II WWRF IW-2	April 2020	City of Miramar Alicia Ayum Procurement Director 2300 Civic Center Place Miramar, FL 33025 Phone: (954) 602-3054 Fax: (954) 602-3525 Email: aayum@miramarfl.gov	Hazen and Sawyer, P.C. Albert Muniz, P.E. 2101 NW Corporate Blvd., Suite 301 Boca Raton, FL 33431 Phone: 561-997-8070 Fax: 561-997-8159 Email: amuniz@hazenandsawyer.com	24" 2,950'	N/A	N/A	3,196'	P
Three Oaks IW-1	March 2020	Lee County Utilities Tyler Weinand P.G. 1500 Monroe Street, Third Floor Fort Myers, FL 33901 Phone: (239) 533-8166 Fax: Email: tweinand@leegov.com	WSP Wm. Scott Manahan, P.E., Operations Manager 1567 Hayley Lane, Suite 202 Fort Myers, FL 33907 Phone: 239-481-6494 Fax: 239-481-6393 Email: scott.manahan@pbworld.com	20" 2,100'	14.5" FRP 2,095'	F	2,507'	A
Hialeah ROWTP IW-1	March 2020	City of Hialeah David Rodriguez Chief Operator Hialeah ROWTP Hialeah, FL 33018 Phone: (305)-556-7205 Fax: Email: david.rodriguez@inima.com	JLA Geosciences James Andersen, PG 1907 Commerce Lane, Suite 104 Jupiter, FL 33458 Phone: 561-746-0228 Fax: 561-746-0119 Email: jandersen@ilageosciences.com	24" 2,937'	16" FRP 2,937'	F	3501'	A



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Hialeah ROWTP IW-2	March 2020	City of Hialeah David Rodriguez Chief Operator Hialeah ROWTP Hialeah, FL 33018 Phone: (305)-556-7205 Fax: Email: david.rodriguez@inima.com	JLA Geosciences James Andersen, PG 1907 Commerce Lane, Suite 104 Jupiter, FL 33458 Phone: 561-746-0228 Fax: 561-746-0119 Email: jandersen@ilageosciences.com	24" / 2,936'	16" FRP / 2,936'	F	3,501'	A
Tropicana Products IW-1	December 2019	Tropicana Products, Inc. Jeff Clark 1001 13th Ave. East Bradenton, FL 34208 Phone: 941-747-4461 Fax: Email:	ASRUS Pete Larkin, P.G., Vice President 13329 N. Armenia Avenue Tampa, FL 33613 Phone: 813-382-8516 Email: plarkin@asrus.net	14" / 880'	N/A	N/A	1,100'	P
Tropicana Products IW-2	December 2019	Tropicana Products, Inc. Jeff Clark 1001 13th Ave. East Bradenton, FL 34208 Phone: 941-747-4461 Fax: Email:	ASRUS Pete Larkin, P.G., Vice President 13329 N. Armenia Avenue Tampa, FL 33613 Phone: 813-382-8516 Email: plarkin@asrus.net	14" / 880'	N/A	N/A	1,080'	P
Central County WRF IW-1	October 2019	Sarasota County Public Utilities Patricia Hindle Nihart Envir. Spec.III 1001 Sarasota Center Blvd. Sarasota, FL 34240 Phone: (941)861-5000 Fax: Email: pnihart@scgov.net	WSP Wm. Scott Manahan, P.E., Operations Manager 1567 Hayley Lane, Suite 202 Fort Myers, FL 33907 Phone: 239-481-6494 Fax: 239-481-6393 Email: scott.manahan@pbworld.com	24" / 1,420'	N/A	N/A	1,819'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Pinewoods IW-1	September 2019	Lee County Utilities Tyler Weinand P.G. 1500 Monroe Street, Third Floor Fort Myers, FL 33901 Phone: (239)533-8166 Fax: Email: tweinand@leegov.com	WSP Wm. Scott Manahan, P.E., Operations Manager 1567 Hayley Lane, Suite 202 Fort Myers, FL 33907 Phone: 239-481-6494 Fax: 239-481-6393 Email: scott.manahan@pbworld.com	14" 2,581'	9.625" FRP 2,578'	F	3,005'	A
RO WTP IW-1	September 2019	Gasparilla Island Water Association Bonnie Pringle, Utility Director P.O. Box 310 Boca Grande, FL 33921 Phone: 941-964-2423 Fax: 941-964-0625 E-mail: bonniegiwa@comcast.net	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	11.75" ID 1,490'	7.625" FRP 1,485'	C	1,700'	P
Indian River Eco-District IW-1	June 2019	Indian River Eco-District Jim Hissam 925 74th Avenue SW Vero Beach, FL 32968 Phone: 904-459-1024 Email: jhissam@bhkcap.com	ASRUS Pete Larkin, P.G., Vice President 13329 N. Armenia Avenue Tampa, FL 33613 Phone: 813-382-8516 Email: plarkin@asrus.net	8" SS 2,370'	6" FRP 2,360'	Diesel	2890'	A
Northwest WRF IW-1	June 2019	City of St. Petersburg Ralph Craig, Hydrogeologist 1635 Third Avenue North St. Petersburg, FL 33713 Phone: 727-892-5669 Fax: 727-823-9152 Email: Ralph.Craig@stpete.org		30" 756'	N/A	N/A	1,115'	N/A



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Northwest WRF IW-2	June 2019	City of St. Petersburg Ralph Craig, Hydrogeologist 1635 Third Avenue North St. Petersburg, FL 33713 Phone: 727-892-5669 Fax: 727-823-9152 Email: Ralph.Craig@stpete.org	ASRUS Pete Larkin, P.G., Vice President 13329 N. Armenia Avenue Tampa, FL 33613 Phone: 813-382-8516 Email: plarkin@asrus.net	30" 756'	N/A	N/A	1,110'	N/A
Plant Smith IW-4	April 2019	Gulf Power Company Richard M. Markey, Super. of Water One Energy Place Pensacola, FL 32520 Phone: 850-444-6573 Fax: 850-444-6217 Email: rmmarkev@southernco.com	CH2M HILL Jeffrey D. Lehn, P.G. 3011 SW Williston Road Gainesville, FL 32608 Phone: 352-335-5877 Fax: 352-335-2959 Email: jeff.lehnen@ch2m.com	14" FRP 1,200'	N/A	N/A	2000'	P
NCRWTP Vanderbilt IW-2	April 2019	Collier County Howard Brogdon, Plant Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-5252 Fax: 239-252-6450 Email: HowardBrogdon@colliergov.net	Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	20" 2,495'	16" FRP 2,456'	C	3,200'	P
Plant Smith IW-3	March 2019	Gulf Power Company Richard M. Markey, Super. of Water One Energy Place Pensacola, FL 32520 Phone: 850-444-6573 Fax: 850-444-6217 Email: rmmarkev@southernco.com	CH2M HILL Jeffrey D. Lehn, P.G. 3011 SW Williston Road Gainesville, FL 32608 Phone: 352-335-5877 Fax: 352-335-2959 Email: jeff.lehnen@ch2m.com	14" FRP 1,195'	N/A	N/A	1290'	P





## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
GPIWA WTP	March 2019	Greater Pine Island Water Association Bill Thatcher, General Manager 5281 Pine Island Road Bokelia, FL 33922 Phone: 239-283-1071 Fax: 239-283-7792 Email: wthatcher@pineislandwater.com	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com	18" 1,955'	12" FRP 1,951'	F	3,138'	A
Cape Coral Everest IW -1	February 2019	Gina Lanzilotta, Senior Buyer/Financial Services/Procurement City of Cape Coral PO Box 150027 Cape Coral FL 33915-0027 Phone: 239-574-0834 Fax: 239-574-0837 Email: glanzilo@capecoral.net	Stantec Ms. Anamaria Sarmiento 2600 Douglass Road, Suite 600 Coral Gables, FL 33134 Direct: 786 313-5508 Mobile: 954 599-1561 anamaria.sarmiento@stantec.com	24" 2630'	N/A	N/A	3700'	P
Plant Crist IW-2	January 2019	Gulf Power Company Richard M. Markey, Super. of Water One Energy Place Pensacola, FL 32520 Phone: 850-444-6573 Fax: 850-444-6217 Email: rmmarkey@southernco.com	Jacobs Jeffrey D. Lehn, P.G. 3011 SW Williston Road Gainesville, FL 32608 Phone: 352-335-5877 Fax: 352-335-2959 Email: jeff.lehn@jacobs.com	24" 1,490'	7" FRP 1,472'	C	1905'	P
Plant Crist IW-1	January 2019	Gulf Power Company Richard M. Markey, Super. of Water One Energy Place Pensacola, FL 32520 Phone: 850-444-6573 Fax: 850-444-6217 Email: rmmarkey@southernco.com	Jacobs Jeffrey D. Lehn, P.G. 3011 SW Williston Road Gainesville, FL 32608 Phone: 352-335-5877 Fax: 352-335-2959 Email: jeff.lehn@jacobs.com	24" 1,520'	7" FRP 1,502'	C	2290'	P





# Layne Christensen Company

## UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Marco Island IW-2	October 2018	City of Marco Island Bruce Weinstein, Ph.D. 50 Bald Eagle Drive Marco Island, FL 34145 Phone: 239-389-5000 Fax: 239-389-4359 Email: bweinstein@cityofmarcoisland.com	Water Science Associates Andrew McThenia P.G. 13620 Metro Ave. Suite 110 Ft. Myers, FL. 33912 Phone: 239-246-1972 andy@wsaconsult.com	24" 2,638'	16" FRP 2,629'	C	3,230'	P
SCWRF IW-1	August 2018	Collier County Zamira Del Toro Project Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-6279 Fax: 239-252-5378 Email: zamiradeloro@colliergov.net	CDM Smith Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	24" 2,590'	N/A	N/A	3,000'	P
Southwest & Northeast WRF 8 Wells	July 2018	City of St. Petersburg Ralph Craig, Hydrogeologist 1635 Third Avenue North St. Petersburg, FL 33713 Phone: 727-892-5669 Fax: 727-823-9152 Email: Ralph.Craig@stpete.org	ASRUS Pete Larkin, P.G., Vice President 13329 N. Armenia Avenue Tampa, FL 33613 Phone: 813-382-8516 Email: plarkin@asrus.net	24" 950'	N/A	N/A	1,110'	RTS
Southwest Cape Coral WRF- IW -1	June 2018	Gina Lanzilotta, Senior Buyer/Financial Services/Procurement City of Cape Coral PO Box 150027 Cape Coral FL 33915-0027 Phone: 239-574-0834 Fax: 239-574-0837 Email: glanzilo@capecoral.net	Stantec Ms. Anamaria Sarmiento 2600 Douglass Road, Suite 600 Coral Gables, FL 33134 Direct: 786 313-5508 Mobile: 954 599-1561 anamaria.sarmiento@stantec.com	24" 2950'	18" FRP 2940'	C	3020'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Burnt Store IW-2	May 2018	Charlotte County Kathleen Lindback, Contract Specialist 18500 Murdock Circle Port Charlotte, FL 33948 Phone: 941-743-1376 Fax: 941-743-1384 E-mail: kathy.lindback@charlottecountyfl.com	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com	24" 2503"	18" FRP 2492'	C	3000'	P
NCWRF IW-1	March 2018	Collier County Zamira Del Toro Project Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-6279 Fax: 239-252-5378 Email: zamiradelatoro@colliergov.net	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com	24" 2,575'	N/A	N/A	3,250'	P
West County Energy Center IW-1	March 2018	Florida Power & Light Matthew Wetmore, PGD Env. Leader West County Energy Center 20505 State Road 80 Loxahatchee, FL 33470 Phone: 561-904-4907 E-mail: Matthew_Wetmore@FPL.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	20" 2,778'	16" FRP 2,778'	F	3,411'	A
West County Energy Center IW-2	March 2018	Florida Power & Light Matthew Wetmore, PGD Env. Leader West County Energy Center 20505 State Road 80 Loxahatchee, FL 33470 Phone: 561-904-4907 E-mail: Matthew_Wetmore@FPL.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	20" 2,720'	16" FRP 2,720'	F	3,250'	A



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
NCWRF IW-2	January 2018	Collier County Zamira Del Toro Project Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-6279 Fax: 239-252-5378 Email: zamiradelatoro@colliergov.net	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com	24" 2,582'	N/A	N/A	3,250'	P
Sole Mia Biscayne Landing IW-2	December 2017	Sole Mia SCS Engineers Biscayne Landing 2200 Northeast 143 St. North Miami, FL Phone: 305-412-8185 E-mail: kramirez@scsengineers.com	Kevin Ramirez 7700 Kendall Drive Suite 300 Miami, FL 33156 Phone: 305-412-8185 Fax: 305-412-8105 Email: kramirez@scsengineers.com	16" 2,520'	11.75" FRP 2,505'	F	3,250'	A
NCRWTP Vanderbilt IW-1	October 2017	Collier County Howard Brogdon, Plant Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-5252 Fax: 239-252-6450 Email: HowardBrogdon@colliergov.net	Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	20" 2,497'	16" FRP 2,375'	C	3,330'	P
Plant Smith IW-1	August 2017	Gulf Power Company Richard M. Markey, Super. of Water One Energy Place Pensacola, FL 32520 Phone: 850-444-6573 Fax: 850-444-6217 Email: rmmarkey@southernmco.com	CH2M HILL Jeffrey D. Lehnen, P.G. 3011 SW Williston Road Gainesville, FL 32608 Phone: 352-335-5877 Fax: 352-335-2959 Email: jeff.lehnen@ch2m.com	9-5/8" 4,870'	6" FRP 1,180'	F	7,058"	A



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
RO Plant North Plant IW -2	July 2017	Gina Lanzilotta, Senior Buyer/Financial Services/Procurement City of Cape Coral PO Box 150027 Cape Coral FL 33915-0027 Phone: 239-574-0834 Fax: 239-574-0837 Email: glanzilo@capecoral.net	Water Science Associates Andrew McThenia P.G. 13620 Metro Ave. Suite 110 Ft. Myers, FL. 33912 Phone: 239-246-1972 andy@wsaconsult.com	22" 2062'	16" FRP 2048'	C	3000'	P
North Lee WTP IW-1	June 2017	Lee County Utilities Rand Edelstein, P.G. 2115 Second Street Fort Myers, FL 33901 Phone: 239-533-8164 Fax: 239-267-7997 Email: REdelstein@leegov.com	Johnson Engineering, Inc. Lonnie Howard, President 2122 Johnson Street Fort Myers, FL 33901 Phone: 239-334-0046 Fax: 239-334-3661 Email: LVH@johnsoneng.com	20" 2,585'	12" FRP 2,580'	C	2950'	P
Turkey Point IW-1	May 2017	Florida Power and Light Company Joseph Fazio, P.E., Proj. Eng. P.O. Box 14000 Juno Beach, FL 33408 Phone: 561-691-2451 Fax: 561-694-3360 Email: joseph.fazio@fpl.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	24" 2,985'	18" FRP 2,975'	F	3,230'	A
Zemel Road Landfill IW-1	March 2017	Charlotte County Public Works Solid Waste Division 25550 Harbor View Road Unit 2 Port Charlotte, FL 33980 Phone: 941-764-4360	Johnson Engineering, Inc. Lonnie Howard, President 2122 Johnson Street Fort Myers, FL 33901 Phone: 239-334-0046 Fax: 239-334-3661 Email: LVH@johnsoneng.com	12" 2,486'	8" FRP 2,466'	F	2710'	A



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Palm Bay N-Regional WWTW IW -1	September 2016	City of Palm Bay Susan Blair, CPPB, FCCM 120 Malabar Road SE Palm Bay, FL 32907 Phone: 321-952-3424 Fax: 321-952-3401 Email: susan.blair@pbfl.org	Wade Trim Christopher Little P.E. 3790 Dixie Highway NE, Suite D Palm Bay, FL 32905 Phone: 321-728-3389 Fax: 321-728-3393 Email: Clittle@WadeTrim.com	20" 2,053'	N/A	N/A	3005'	P
South Collier WTP IW -2	August 2016	Collier County Alica Abbot 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-5344 Fax: 239-252-6450 Email: AlicaAbbott@colliergov.net	WSP- Parsons Brinckerhoff Wm. Scott Manahan, P.E., Operations Manager 1567 Hayley Lane, Suite 202 Fort Myers, FL 33907 Phone: 239-481-6494 Fax: 239-481-6393 Email: scott.manahan@pbworld.com	24" 2,550'	16" FRP 2,549'	C	3,200'	P
South Collier WTP IW -1	August 2016	Collier County Alica Abbot 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-5344 Fax: 239-252-6450 Email: AlicaAbbott@colliergov.net	WSP- Parsons Brinckerhoff Wm. Scott Manahan, P.E., Operations Manager 1567 Hayley Lane, Suite 202 Fort Myers, FL 33907 Phone: 239-481-6494 Fax: 239-481-6393 Email: scott.manahan@pbworld.com	24" 2,278'	16" FRP 2,125'	C	3,200'	P
Polk Power IW-2	June 2016	Tampa Electric Company Catherine Magliocco, P.E., Proj. Mgr. P.O. Box 111 Tampa, FL 33601 Phone: 813-228-1346 Fax: 813-228-1560 Email: camagliocco@tecoenergvy.com	HydroGeo Consulting, LLC Michael Weatherby, P.G. 11307 Hoot Owl Ct. Riverview, FL 33569 Phone: 813-643-1737 Email: michaelweatherby2015@gmail.com	18" 4,215'	10-3/4" FRP 4,228'	C	8,000'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Polk Power IW-1	June 2016	Tampa Electric Company Catherine Magliocco, P.E., Proj. Mgr. P.O. Box 111 Tampa, FL 33601 Phone: 813-228-1346 Fax: 813-228-1560 Email: camagliocco@tecoenergy.com	HydroGeo Consulting, LLC Michael Weatherby, P.G. 11307 Hoot Owl Ct. Riverview, FL 33569 Phone: 813-643-1737 Email: michaelweatherby2015@gmail.com	18" 4,210'	10-3/4" FRP 4,220'	C	8,000'	P
Lee/Hendry SWD Facility IW-1	May 2016	Lee/Hendry SWD Facility Michael W. LeBlanc S.E.P. 5500 Church Road Felda, FL 33930 Phone: 239-369-7831 Fax: 239-368-6912 Email: MLeBlanc@leegov.com	MWH Americas, Inc. Edward Rectenwald, P.G. 5237 Summerlin Commons Blvd., Office 105 Fort Myers, FL 33907 Phone: 239-275-2228 ext. 2740 Fax: 239-236-0022 Email: edward.rectenwald@mwhglobal.com	12" 2,396'	6.96" FRP 2,391'	F	3,066'	A
NRWWTP IW-8	February 2016	Broward County Gregory M. Balicki, P.E. 2555 W. Copans Road Pompano Beach, FL 33069 Phone: 954-831-0903 Fax: 954-831-0798 Email: gbalicki@broward.org	Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,585'	N/A	N/A	3,507'	P
NRWWTP IW-7	February 2016	Broward County Gregory M. Balicki, P.E. 2555 W. Copans Road Pompano Beach, FL 33069 Phone: 954-831-0903 Fax: 954-831-0798 Email: gbalicki@broward.org	Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,585'	N/A	N/A	3,506'	P





## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
IW-1	August 2015	City of Punta Gorda David Brooks, Supervisor WWT 326 West Marion Ave. Punta Gorda, FL 33950 Phone: 941-575-5059 Fax: 941-628-6319 Email: DBrooks@pgorda.us	Cardno ENTRIX Andrew McThenia, P.G., Senior Staff Scientist 13700 Ben C. Pratt Six Mile Cypress Pkwy. #1 Fort Myers, FL 33912 Phone: 239-574-1919 Fax: 239-574-8106 Email: Andrew.McThenia@cardno.com	20" 2,500'	N/A	N/A	2,850'	P
East Port IW-2	July 2015	Charlotte County Kathleen Lindback, Contract Specialist 18500 Murdock Circle Port Charlotte, FL 33948 Phone: 941-743-1376 Fax: 941-743-1384 E-mail: kathy.lindback@charlottecountyfl.com	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com	20" 2,965'	N/A	N/A	3,246'	P
Peele-Dixie IW-1	July 2015	City of Fort Lauderdale Kimberly Nedd, Project Manager 100 N. Andrews Avenue Fort Lauderdale, FL 33301 Phone: 954-828-5064 Fax: 954-828-5074 Email: Knedd@fortlauderdale.gov	Hazen and Sawyer, P.C. Albert Muniz, P.E. 2101 NW Corporate Blvd., Suite 301 Boca Raton, FL 33431 Phone: 561-997-8070 Fax: 561-997-8159 Email: amuniz@hazenandsawyer.com	24" 3,000'	16" FRP 2,983'	C	3,500'	P
West Port IW-1	July 2015	Charlotte County Kathleen Lindback, Contract Specialist 18500 Murdock Circle Port Charlotte, FL 33948 Phone: 941-743-1376 Fax: 941-743-1384 E-mail: kathy.lindback@charlottecountyfl.com	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com	12" 1,274'	N/A	N/A	1,650'	P





## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Burnt Store IW-1	June 2015	Charlotte County Kathleen Lindback, Contract Specialist 18500 Murdock Circle Port Charlotte, FL 33948 Phone: 941-743-1376 Fax: 941-743-1384 E-mail: kathy.lindback@charlottecountyfl.com	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com	7.625" / 2,494'	4.5" FRP / 2,494'	F	3,268'	A
Center Road IW-1	May 2015	Sarasota County Public Utilities H. Cliff Harrison, P.G. 1001 Sarasota Center Blvd. Sarasota, FL 34240 Phone: 941-232-9835 Fax: 941-861-0986 Email: hharrison@scgov.net	Ardaman & Associates, Inc. Douglas Dufresne, P.G. 8008 South Orange Avenue Orlando, FL 32809 Phone: 407-855-3860 Fax: 407-859-8121 Email: DDufresne@ardaman.com	18" / 1,540'	12.75" Duplex / 1,504'	C	1,900'	P
Three Oaks IW-1	April 2015	Lee County Utilities Rand Edelstein, P.G. 2115 Second Street Fort Myers, FL 33901 Phone: 239-533-8164 Fax: 239-267-7997 Email: REdelstein@leegov.com	Johnson Engineering, Inc. Kim Arnold, P.G. 2122 Johnson Street Fort Myers, FL 33901 Phone: 239-461-3329 Fax: 239-334-3661 Email: KArnold@johnsoneng.com	20" / 2,100'	16" FRP / 2,100'	F	3,015'	A
Key West IW-2	November 2014	City of Key West Elizabeth Ignoffo, E.I. 3110 Flagler Avenue Key West, FL 33040 Phone: 305-809-3966 Fax: 305-809-3857 Email: eignoffo@cityofkeywest-fl.gov	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	24" / 2,775'	N/A	N/A	3,004'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Key West IW-1	October 2014	City of Key West Elizabeth Ignoffo, E.I. 3110 Flagler Avenue Key West, FL 33040 Phone: 305-809-3966 Fax: 305-809-3857 Email: <a href="mailto:eiagnoffo@cityofkeywest-fl.gov">eiagnoffo@cityofkeywest-fl.gov</a> Lee County Utilities	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: <a href="mailto:david@mcnabbhydroconsult.com">david@mcnabbhydroconsult.com</a> MWH Americas, Inc.	24" 2,758'	N/A	N/A	3,000'	P
Pinewoods IW-1	October 2014	Rand Edelstein, P.G. 2115 Second Street Fort Myers, FL 33901 Phone: 239-533-8164 Fax: 239-267-7997 Email: <a href="mailto:REdelstein@leegov.com">REdelstein@leegov.com</a>	Edward Rectenwald, P.G. 5237 Summerlin Commons Blvd., Office 105 Fort Myers, FL 33907 Phone: 239-275-2228 ext. 2740 Fax: 239-236-0022 Email: <a href="mailto:edward.rectenwald@rmwhglobal.com">edward.rectenwald@rmwhglobal.com</a>	14" 2,585'	9.625" FRP 2,582'	F	3,050'	A
RO WTP IW-1	September 2014	Gasparilla Island Water Association Bonnie Pringle, Utility Director P.O. Box 310 Boca Grande, FL 33921 Phone: 941-964-2423 Fax: 941-964-0625 E-mail: <a href="mailto:bonniegiwa@comcast.net">bonniegiwa@comcast.net</a> Charlotte County	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: <a href="mailto:Dacquaviva@rma-geologic.com">Dacquaviva@rma-geologic.com</a>	11.75" ID 1,490'	7.625" FRP 1,485'	C	1,700'	P
East Port IW-1	September 2014	Alisa True, Contract Specialist 18500 Murdock Circle Port Charlotte, FL 33948 Phone: 941-743-1549 Fax: 941-743-1384 E-mail: <a href="mailto:alisa.true@charlottetfl.com">alisa.true@charlottetfl.com</a>	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: <a href="mailto:Dacquaviva@rma-geologic.com">Dacquaviva@rma-geologic.com</a>	8" 2,977'	N/A	N/A	3,242'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Northwest WRF IW-1	June 2014	City of St. Petersburg Ralph Craig, Hydrogeologist 1635 Third Avenue North St. Petersburg, FL 33713 Phone: 727-892-5669 Fax: 727-823-9152 Email: Ralph.Craig@stpete.org	CH2M HILL Pete Larkin, P.G., Project Manager 4350 W. Cypress St., Suite 600 Tampa, FL 33607 Phone: 813-874-0777 Fax: 813-874-3056 Email: pete.larkin@ch2m.com	30" 756'	N/A	N/A	1,115'	N/A
Northwest WRF IW-2	June 2014	City of St. Petersburg Ralph Craig, Hydrogeologist 1635 Third Avenue North St. Petersburg, FL 33713 Phone: 727-892-5669 Fax: 727-823-9152 Email: Ralph.Craig@stpete.org	CH2M HILL Pete Larkin, P.G., Project Manager 4350 W. Cypress St., Suite 600 Tampa, FL 33607 Phone: 813-874-0777 Fax: 813-874-3056 Email: pete.larkin@ch2m.com	30" 756'	N/A	N/A	1,110'	N/A
NRWWTP IW-5	June 2014	Broward County Gregory M. Balicki, P.E. 2555 W. Copans Road Pompano Beach, FL 33069 Phone: 954-831-0903 Fax: 954-831-0798 Email: gbalicki@broward.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,990'	N/A	N/A	3,507'	P
NRWWTP IW-4	May 2014	Broward County Gregory M. Balicki, P.E. 2555 W. Copans Road Pompano Beach, FL 33069 Phone: 954-831-0903 Fax: 954-831-0798 Email: gbalicki@broward.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,990'	N/A	N/A	3,501'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
NRWWTP IW-3	May 2014	Broward County Gregory M. Balicki, P.E. 2555 W. Copans Road Pompano Beach, FL 33069 Phone: 954-831-0903 Fax: 954-831-0798 Email: gbalicki@broward.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,990'	N/A	N/A	3,505'	P
Norwood WTP DIW	May 2014	"Jeff" Huren An, Ph.D., P.E. 17050 NE 19th Avenue North Miami Beach, FL 33162 Phone: 305-948-2967 Fax: 305-957-3502 Email: jeff.an@citynmb.com	MWH Americas, Inc. Neil A. Johnson, P.G. 100 S. Dixie Hwy, Suite 300 West Palm Beach, FL 33325 Phone: 561-650-0070 Fax: 561-650-0074 Email: neil.a.johnson@mwglobal.com	20" 2,858'	14.5" FRP 2,853'	F	3,420'	P
WTP IW-1	May 2014	City of Pompano Beach Phil Hyer, Utilities Superintendent 1201 NE 5 Avenue Pompano Beach, FL 33061 Phone: 954-545-7030 Fax: 954-545-7046 Email: phyer@copbfl.com	Edward Rectenwald, P.G. 5237 Summerlin Commons Blvd., Office 105 Fort Myers, FL 33907 Phone: 239-275-2228 ext. 2740 Fax: 239-236-0022 Email: edward.rectenwald@mwglobal.com	24" 2,291'	16" 2,271'	C	2,901'	P
NRWWTP IW-2	May 2014	Broward County Gregory M. Balicki, P.E. 2555 W. Copans Road Pompano Beach, FL 33069 Phone: 954-831-0903 Fax: 954-831-0798 Email: gbalicki@broward.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,990'	N/A	N/A	3,521'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
NRWWTP IW-1	April 2014	Broward County Gregory M. Balicki, P.E. 2555 W. Copans Road Pompano Beach, FL 33069 Phone: 954-831-0903 Fax: 954-831-0798 Email: gbalicki@broward.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,990'	N/A	N/A	3,512'	P
NRWWTP IW-6	April 2014	Broward County Gregory M. Balicki, P.E. 2555 W. Copans Road Pompano Beach, FL 33069 Phone: 954-831-0903 Fax: 954-831-0798 Email: gbalicki@broward.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,990'	N/A	N/A	3,510'	P
NCRWTP IW-2	April 2014	Collier County Howard Brogdon, Plant Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-5252 Fax: 239-252-6450 Email: HowardBrogdon@colliergov.net	Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	20" 2,495'	16" FRP 2,460	C	3,200'	P
GPIWA WTP	March 2014	Greater Pine Island Water Association Bill Thatcher, General Manager 5281 Pine Island Road Bokeelia, FL 33922 Phone: 239-283-1071 Fax: 239-283-7792 Email: wthatcher@pineislandwater.com	RMA Geologic Consultants, Inc. Daniel Acquaviva, P.G., Vice President 12771 World Plaza Ln., Bldg. 87, Suite 1 Fort Myers, FL 33907 Phone: 239-415-1818 Fax: 239-415-1919 Email: Dacquaviva@rma-geologic.com	18" 1,955'	12" FRP 1,951'	F	3,138'	A



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
CSID IW-2	January 2014	Coral Springs Improvement District Edward Stover, Chief Operator 10300 NW 11th Manor Coral Springs, FL 33071 Phone: 954-752-1797 Fax: 954-757-4850 Email: eds@fladistricts.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	24" 2,900'	N/A	N/A	3,500'	P
CSID IW-1	January 2014	Coral Springs Improvement District Edward Stover, Chief Operator 10300 NW 11th Manor Coral Springs, FL 33071 Phone: 954-752-1797 Fax: 954-757-4850 Email: eds@fladistricts.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	12" 3,006'	N/A	N/A	3,500'	P
Marco Island IW-2	October 2013	City of Marco Island Bruce Weinstein, Ph.D. 50 Bald Eagle Drive Marco Island, FL 34145 Phone: 239-389-5000 Fax: 239-389-4359 Email: bweinstein@cityofmarcoisland.com	Cardno ENTRIX John Mayhut, Senior Project Scientist 13700 Ben C. Pratt Six Mile Cypress Pkwy. #1 Fort Myers, FL 33912 Phone: 239-574-1919 Fax: 239-574-8106 Email: John.Mayhut@cardno.com	24" 2,638'	16" FRP 2,629'	C	3,230'	P
NCRWTP IW-2	July 2013	Collier County Howard Brogdon, Plant Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-5252 Fax: 239-252-6450 Email: HowardBrogdon@colliergov.net	CDM Smith Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	20" 2,495'	16" FRP 2,460'	C	3,200'	P





## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
NCRWTP IW-1	July 2013	Collier County Howard Brogdon, Plant Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-5252 Fax: 239-252-6450 Email: HowardBrogdon@colliergov.net	CDM Smith Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	18" 1,955'	12" FRP 1,951'	F	3,138'	A
WRF IW-2	June 2013	Collier County Peter Schalt, Senior Project Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-4285 Fax: 239-252-5378 Email: PeterSchalt@colliergov.net	CDM Smith Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	24" 2,582'	N/A	N/A	3,250'	P
WRF IW-1	June 2013	Collier County Peter Schalt, Senior Project Manager 3339 Tamiami Trail East, Suite 303 Naples, FL 34112-5361 Phone: 239-252-4285 Fax: 239-252-5378 Email: PeterSchalt@colliergov.net	CDM Smith Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	24" 2,575'	N/A	N/A	3,250'	P
SCRWWTP IW-1	May 2013	South Central Regional WWT&DB Dennis Coates, Executive Director 1801 N. Congress Avenue Delray Beach, FL 33445 Phone: 561-272-7061 Fax: 561-265-2357 Email: dcoates@scrwwtp.org	Hazen and Sawyer, P.C. Albert Muniz, P.E. 2101 NW Corporate Blvd., Suite 301 Boca Raton, FL 33431 Phone: 561-997-8070 Fax: 561-997-8159 Email: amuniz@hazenandsawyer.com	24" 2,430'	N/A	N/A	3,024'	P





## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
West County Energy Center IW-1	May 2013	Florida Power & Light Matthew Wetmore, PGD Env. Leader West County Energy Center 20505 State Road 80 Loxahatchee, FL 33470 Phone: 561-904-4907 E-mail: Matthew_Wetmore@FPL.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	20" / 2,778'	16" FRP / 2,778'	F	3,411'	A
West County Energy Center IW-2	May 2013	Florida Power & Light Matthew Wetmore, PGD Env. Leader West County Energy Center 20505 State Road 80 Loxahatchee, FL 33470 Phone: 561-904-4907 E-mail: Matthew_Wetmore@FPL.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	20" / 2,720'	16" FRP / 2,720'	F	3,250'	A
Sawgrass WWTP IW-3	April 2013	City of Sunrise Ted Petrides, P.E. 777 Sawgrass Corporate Parkway Sunrise, FL 33325 Phone: 954-888-6000 Fax: 954-846-7404 Email: Tpetrides@sunrisefl.gov	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" / 2,988'	N/A	N/A	3,350'	P
Sawgrass WWTP IW-1	April 2013	City of Sunrise Ted Petrides, P.E. 777 Sawgrass Corporate Parkway Sunrise, FL 33325 Phone: 954-888-6000 Fax: 954-846-7404 Email: Tpetrides@sunrisefl.gov	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" / 2,700'	N/A	N/A	3,200'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
Sawgrass WWTP IW-2	April 2013	City of Sunrise Ted Petrides, P.E. 777 Sawgrass Corporate Parkway Sunrise, FL 33325 Phone: 954-888-6000 Fax: 954-846-7404 Email: <a href="mailto:tpetrides@sunrisefl.gov">tpetrides@sunrisefl.gov</a> City of West Melbourne	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: <a href="mailto:mwengrenovich@hazenandsawyer.com">mwengrenovich@hazenandsawyer.com</a> CH2M HILL	24" 2,720'	N/A	N/A	3,200'	P
WWTP Injection Well	January 2013	Keith Mills, Deputy City Mgr. 2240 Minton Road West Melbourne, FL 32904 Phone: 321-837-7777 Fax: 321-768-2390 Email: <a href="mailto:kmills@westmelbourne.org">kmills@westmelbourne.org</a>	Gerrit Bulman, Hydrogeologist 800 Fairway Drive, Suite 350 Deerfield Beach, FL 33441 Phone: 954-426-4008 Fax: 954-698-6010 Email: <a href="mailto:gbulman@ch2m.com">gbulman@ch2m.com</a> MWH Americas, Inc.	14" 1,980'	N/A	N/A	2,409'	P
Polk Power IW-1 (Re-Rate)	January 2013	Tampa Electric Company Catherine Magliocco, P.E., Proj. Mgr. P.O. Box 111 Tampa, FL 33601 Phone: 813-228-1346 Fax: 813-228-1560 Email: <a href="mailto:camagliocco@tecoenergy.com">camagliocco@tecoenergy.com</a>	Edward Rectenwald, P.G. 5237 Summerlin Commons Blvd., Office 105 Fort Myers, FL 33907 Phone: 239-275-2228 ext. 2740 Fax: 239-236-0022 Email: <a href="mailto:edward.rectenwald@mwhglobal.com">edward.rectenwald@mwhglobal.com</a> MWH Americas, Inc.	18" 4,210'	10-3/4" FRP 4,220'	C	8,000'	P
Polk Power IW-2	January 2013	Tampa Electric Company Catherine Magliocco, P.E., Proj. Mgr. P.O. Box 111 Tampa, FL 33601 Phone: 813-228-1346 Fax: 813-228-1560 Email: <a href="mailto:camagliocco@tecoenergy.com">camagliocco@tecoenergy.com</a>	Edward Rectenwald, P.G. 5237 Summerlin Commons Blvd., Office 105 Fort Myers, FL 33907 Phone: 239-275-2228 ext. 2740 Fax: 239-236-0022 Email: <a href="mailto:edward.rectenwald@mwhglobal.com">edward.rectenwald@mwhglobal.com</a>	18" 4,215'	10-3/4" FRP 4,228'	C	8,000'	P



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
SRWWTP IW-1	Sept. 2012	City of Hollywood Jeff Jiang, P.E., Project Manager 1621 N. 14 Avenue Hollywood, FL 33022 Phone: 954-921-3930 Fax: 954-921-3258 Email: fjiang@hollywoodfl.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,880'	N/A	N/A	3,500'	P
SRWWTP IW-2	Sept. 2012	City of Hollywood Jeff Jiang, P.E., Project Manager 1621 N. 14 Avenue Hollywood, FL 33022 Phone: 954-921-3930 Fax: 954-921-3258 Email: fjiang@hollywoodfl.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	24" 2,880'	N/A	N/A	3,499'	P
IW-1	June 2012	San Antonio Water System Kevin Morrison, P.G. 2800 US Highway 281 North San Antonio, TX 78298 Phone: 210-233-3667 Fax: 210-233-4853 Email: kevin.morrison@saws.org	Subsurface Technology, Inc. Larry McDonald 6925 Portwest Drive, Suite 110 Houston, TX 77024 Phone: 713-880-4640 Fax: 713-880-3248 Email: lmcDonald@subsurfacegroup.com	9-5/8" 4,195'	7" 4,165'	F	5,040'	A
Plant Smith IW-1	June 2012	Gulf Power Company Richard M. Markey, Super. of Water One Energy Place Pensacola, FL 32520 Phone: 850-444-6573 Fax: 850-444-6217 Email: rmmarkey@southernco.com	CH2M HILL Jeffrey D. Lehnert, P.G. 3011 SW Williston Road Gainesville, FL 32608 Phone: 352-335-5877 Fax: 352-335-2959 Email: jeff.lehnert@ch2m.com	9-5/8" 4,870'	6" FRP 1,200'	F	7,058'	A



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

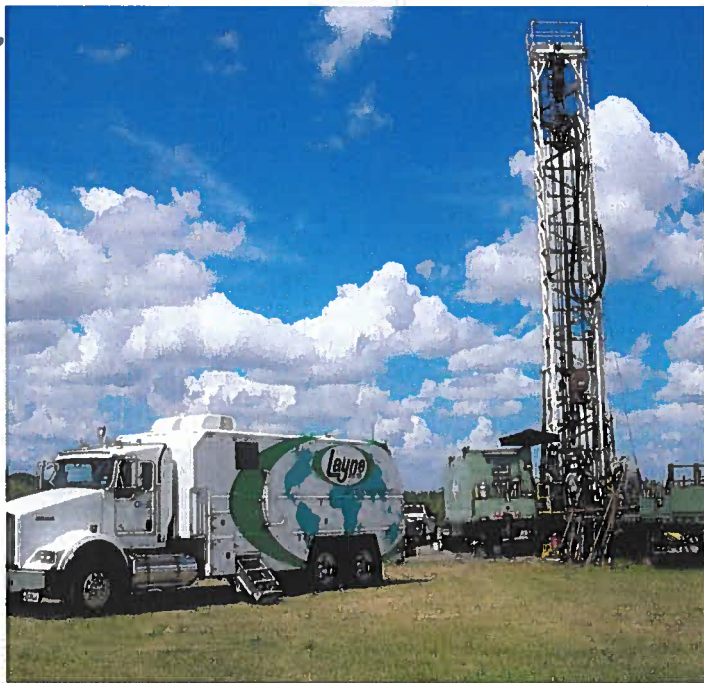
Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
IW-3	May 2012	Imperial Irrigation District Jose Perez, Technical Representative 485 E. Villa Road El Centro, CA 92243 Phone: 760-339-0570 Fax: 760-339-0838 Email: jperez@iid.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	9-5/8" 2,120'	7" 2,735'	F	2,740'	A
Deep Injection Well #1	April 2012	City of North Port Jerry Manning, Plant Ops. Mgr. 6644 W. Price Blvd. North Port, FL 34291 Phone: 941-426-9500 Fax: 941-426-5409 Email: jmanning@cityofnorthport.com	CDM Smith Jason Sciandra, P.E., Senior Project Manager 2180 West First Street, Suite 400 Fort Myers, FL 33901 Phone: 239-938-9600 Fax: 239-339-6418 Email: SciandraJA@cdmsmith.com	24" 1,106'	14" 1,100'	F	3,200'	A
Central Plant IW	March 2012	City of Plantation Victor Pedlar, Water Ops. Super. 400 NW 73 Avenue Plantation, FL 33317 Phone: 954-452-2544 Fax: 954-452-2546 Email: vpedar@plantation.org	Hazen and Sawyer, P.C. Michael Wengrenovich, P.E. 4000 Hollywood Blvd., 750N N. Tower Hollywood, FL 33021 Phone: 954-987-0066 Fax: 954-987-2949 Email: mwengrenovich@hazenandsawyer.com	16" 2,778'	11-3/4" FRP 2,664'	C	3,340'	P
Turkey Point IW-1	March 2012	Florida Power and Light Company Joseph Fazio, P.E., Proj. Eng. P.O. Box 14000 Juno Beach, FL 33408 Phone: 561-691-2451 Fax: 561-694-3360 Email: joseph.fazio@fpl.com	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: david@mcnabbhydroconsult.com	24" 2,990'	18" FRP 2,990'	F	3,230'	A



## Layne Christensen Company UIC Well Mechanical Integrity Testing References

Well	Date Completed	Owner Contact	Consultant Contact	Final Casing (Diam. / Depth) *	Injection Tubing (Diam. / Depth) *	Tubing Annulus **	Total Well Depth	Type of Pressure Test ***
IW-1	December 2011	Imperial Irrigation District Jose Perez, Technical Representative 485 E. Villa Road El Centro, CA 92243 Phone: 760-339-0570 Fax: 760-339-0838 Email: <a href="mailto:jperez@iirid.com">jperez@iirid.com</a> Tampa Electric Company	McNabb Hydrogeologic Consulting, Inc. David McNabb, P.G. 601 Heritage Drive, Suite 110 Jupiter, FL 33458 Phone: 561-623-5468 Fax: 561-623-5469 Email: <a href="mailto:david@mcnabbhydroconsult.com">david@mcnabbhydroconsult.com</a> MWH Americas, Inc.	9-5/8" 2,194'	7" 2,724'	F	2,750'	A
Polk Power IW-1	August 2011	Catherine Magliocco, P.E., Proj. Mgr. P.O. Box 111 Tampa, FL 33601 Phone: 813-228-1346 Fax: 813-228-1560 Email: <a href="mailto:camagliocco@tecoenergy.com">camagliocco@tecoenergy.com</a>	Edward Rectenwald, P.G. 5237 Summerlin Commons Blvd., Office 105 Fort Myers, FL 33907 Phone: 239-275-2228 ext. 2740 Fax: 239-236-0022 Email: <a href="mailto:edward.rectenwald@mwglobal.com">edward.rectenwald@mwglobal.com</a>	18" 4,210'	10-3/4" FRP 4,220'	C	8,000'	P
IW-1	May 2010	St. Lucie West Services District Dennis Pickle, District Manager 450 SW Utility Drive Port St. Lucie, FL 34986 Phone: 772-340-0220 Fax: 772-871-5726 Email: <a href="mailto:dpickle@slwisd.org">dpickle@slwisd.org</a>	HydroDesigns, Inc. Aimee Fratacangeli, P.G. 10401 Brushfield Street Riverview, FL 33569 Phone: 813-610-5071 Fax: 813-671-8552 Email: <a href="mailto:geode9333@aol.com">geode9333@aol.com</a>	12" 2,704'	7-5/8" FRP 2,664'	F	3,295'	A





# EQUIPMENT & RESOURCES

Layne Christensen Company has numerous of resources, final equipment will be chosen at time of Notice to Proceed.

LAYNE CHRISTENSEN COMPANY  
5061 LUCKETT ROAD  
FORT MYERS, FL 33905  
PH: 239.275.1029  
FX: 239.275.1025  
[www.layne.com](http://www.layne.com)



A GRANITE COMPANY



***Layne's Geophysical Logging personnel have been involved in nearly every injection well completion in Florida since 1998. With over 20 years experience in open and cased hole engineering, Layne personnel are capable of meeting all injection well completion needs and more.***



### ***ARTEX 2012 Model 6400 Wireline Unit with Kenworth Chassis***

- Shooting Panel for Perforating Capability
- Model 950 Split Drum
- 16,000' of 3/8" - 7 conductor Rochester Cable
- 7,000' of 3/8" Coax Video Cable
- Hydraulic Winch System
- 15KW Hydraulic Generator
- Warrior Logging System utilized for Acquisition of most Logs
- Matrix Logging System utilized for Acquisition of Televiwer
- Aries CCV Surface Equipment utilized for Video

***All logging tools and acquisition systems are state of the art instruments built in 2011-2012***

### **VIDEO CAPABILITIES:**

#### ***High Resolution Video Log***

- Aries CCV surface equipment with on-screen footage display & 2 DVD recorders

### **CASEDHOLE LOGGING CAPABILITIES:**

#### ***Radioactive Tracer Survey***

- State of Florida Radioactive materials license (I-131 Solution)

#### ***Cement Bond Log***

#### ***Collar Log***

#### ***Temperature Log***

#### ***Casing Inspection Log***

### **OPEN HOLE LOGGING CAPABILITIES:**

#### ***X-Y Caliper Log***

#### ***Gamma Ray Log***

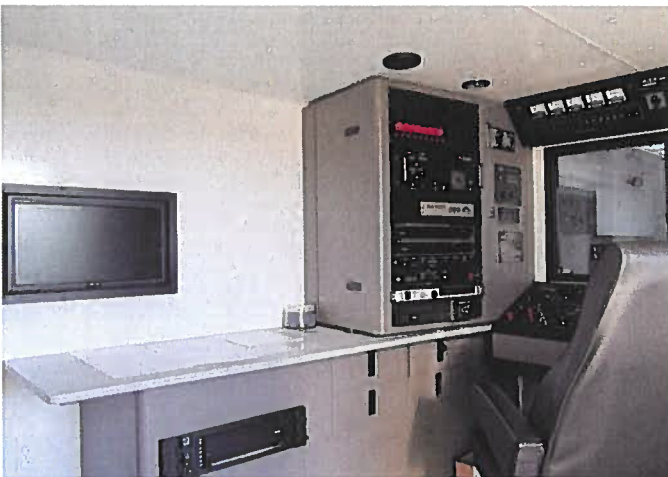
#### ***Dual Induction/LL3 with SP Log***

#### ***Borehole Compensated Sonic Log***

#### ***Fluid Conductivity/Temperature/ Flowmeter***

#### ***Acoustic Televiwer Log***

#### ***Fluid Sample Capability***







## **Layne Christensen Company**

5061 Lockett Road

Ft. Myers, FL 33905

(239) 275-1029 - [www.graniteconstruction.com](http://www.graniteconstruction.com)

### **WELL AND PUMP SERVICES**

#### **Water Well and Booster Pump Repair**

Layne is a representative for many equipment manufacturers which allows us to furnish and install a tailored solution for your water well and well pump system. We combine our expertise and extensive experience with the latest technology to provide a full-line of pump products and services. We can manage your repair from the initial diagnosis all the way back to service.

#### **Service Offering:**

- In-House Pump Design and Sales
- In-House Repair/Inspection Services
- Machine Shop Services
- Routine Preventative Maintenance
- Line Shaft Pumps
- Submersible Well Pumps
- Well and Booster Pump Repair
- Vertical & Horizontal Booster Pumps
- Wellhead Piping Modifications
- Discharge Valves and Fittings

#### **Water Well and Pump Services:**

Before prescribing any repair plan, we diagnose the system to develop an informed, practical, and customized solution. Our ability to craft tailored solutions reflects our extensive service offerings, our variety of rehabilitation methods, our in-house repair shops, and our expertise.

#### **Range of Services:**

- Well Rehab-Acid Treatment,
- Brush, High Pressure Jetting
- Well Redevelopment
- Cased/Open Hole
- Geophysical Logging
- Well Video, X-Y Caliper
- Deviation Surveys
- Fishing Activities
- Pump Installation and Removal



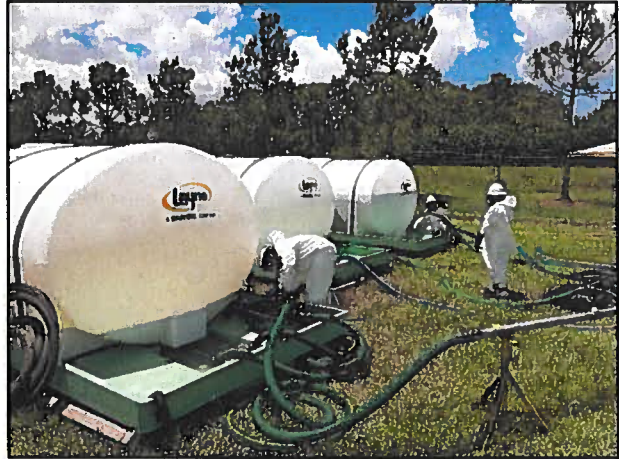
***Providing Water Well and Pump Services Since 1882***





**Layne Christensen Company**  
5061 Lockett Road  
Ft. Myers, FL 33905  
(239) 275-1029 - [www.graniteconstruction.com](http://www.graniteconstruction.com)

**WELL AND PUMP SERVICES**



***Providing Water Well and Pump Services Since 1882***

SECTION 00500

CONTRACT

THIS AGREEMENT, made and entered into, this \_\_\_\_ day of \_\_\_\_\_, A.D., \_\_\_\_\_, by and between the CITY OF HOLLYWOOD, Florida, a municipal corporation of the State of Florida, part of the first part, (hereinafter sometimes called the "CITY"), and

**Layne Christensen Company**

party of the second part (hereinafter sometimes called the "CONTRACTOR").

WITNESSETH: The parties hereto, for the considerations herein- after set forth, mutually agree as follows:

Article 1. Scope of Work: The CONTRACTOR shall furnish all labor, materials, and equipment and perform all work in the manner and form provided by the Contract Documents, for:

**INJECTION WELLS 1 & 2 MECHANICAL INTEGRITY TESTING  
Bid No.: IFB-4714-22-OT**

Article 2. The Contract Sum: The CITY shall pay to the CONTRACTOR, for the faithful performance of the Contract, in lawful money of the United States of America, and subject to additions and deductions as provided in the Contract Documents, as follows:

Based upon the prices shown in the Proposal heretofore submitted to the CITY by the CONTRACTOR, a copy of said Proposal being a part of these Contract Documents, the aggregate amount of this Contract being the sum of **Two Hundred Thousand Ten Dollars and Zero Cents (\$200,010.00)**.

Article 3. Partial and Final Payments: In accordance with the provisions fully set forth in the "General Conditions" of the "Specifications", and subject to additions and deductions as provided, the CITY shall pay the CONTRACTOR as follows:

- (a) On the 15th day, or the first business day thereafter, of each calendar month, the CITY shall make partial payments to the CONTRACTOR on the basis of a duly certified and approved estimate of work performed during the preceding calendar month by the CONTRACTOR, less five percent (5%) of the amount of such estimate which is to be retained by the CITY until all work has been performed strictly in accordance with this Agreement and until such work has been accepted by the CITY. The parties' rights and obligations regarding retainage are further specified in Florida Statute Section 218.735.
- (b) Upon submission by the CONTRACTOR of evidence satisfactory to the CITY that all payrolls, material bills and other costs incurred by the CONTRACTOR in connection with the construction of the WORK have been paid in full, and also, after all guarantees that may be required in the Specifications have been furnished and are found acceptable by the CITY, final payment on account of this Agreement shall be made within sixty (60) days after completion by the CONTRACTOR of all work covered by this Agreement and acceptance of such work by the ENGINEER and approved by the CITY.

Article 4. Time of Completion: The CONTRACTOR shall commence work to be performed under this Contract within ten (10) consecutive calendar days after date of written Notice To Proceed and shall fully complete the Contract in accordance within the Contract Documents and meet all intermediate milestone completion dates required after said date of written notice as set forth in the Proposal, as may be modified by Instructions to Bidders, and stated in the Notice to Proceed.

It is mutually agreed between the parties hereto, that time is the essence, and in the event that construction of the WORK is not completed within the Contract Time and per intermediate dates, as may have been modified solely in accordance with the General Conditions of this Contract, that from the compensation otherwise to be paid to the CONTRACTOR, the CITY is authorized and shall retain, for each day thereafter, Sundays and holidays included, the sum set forth in the Supplementary General Conditions of this Contract as liquidated damages sustained by the CITY in the event of such default by the CONTRACTOR, or shall withhold such compensation for actual and consequential damages as may be stated therein or contemplated therefrom.

Article 5. Additional Bond: It is further mutually agreed between the parties hereto, that if, at any time after the execution of this Agreement and the Payment and Performance Bonds required herein for the express purpose of assuring the faithful performance of the Contractor's work hereto attached, the CITY shall deem the surety or sureties' to be unsatisfactory, or, if for any reason, said bonds cease to be adequate to cover the performance of the work, the CONTRACTOR shall, at his expense, within five (5) days after receipt of notice from the CITY furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the CITY. In such event, no further payment to the CONTRACTOR shall be deemed to be due under this agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the CITY.

Article 6. Contract Documents: All of the documents hereinafter listed form the Contract and they are as fully a part of the Contract as if hereto attached, or repeated in this Agreement:

- |                                      |                                      |
|--------------------------------------|--------------------------------------|
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| 2. Instruction to Bidders            | 10. Performance Bond                 |
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| 5. Bid Bond                          | 13. Supplementary General Conditions |
| 6. Information Required from Bidders | 14. Addenda                          |
| 7. Local Preference                  | 15. Specifications                   |
| 8. Trench Safety Form                | 16. Drawings                         |

Article 7. The rate of wages and fringe benefits, or cash equivalent, for all laborers, mechanics and apprentices employed by any contractor or subcontractor on the work covered by the contract shall be not less than the prevailing rate of wages and fringe benefit payments or cash equivalent for similar skills or classifications of work as established by the General Wage Decision by the United States Department of Labor for Broward County, Florida that is in effect prior to the date the city issues its invitation for bids. If the General Wage Decision fails to provide for a fringe benefit rate for any worker classification, then the fringe benefit rate applicable to the worker classification shall be the fringe benefit rate applicable to the worker classification with a fringe benefit rate that has a basic hourly wage closest in dollar amount to the worker classification for which no fringe benefit rate has been provided.

Article 8. No additional work or extras shall be performed unless the same be duly authorized by appropriate action of the City.

Article 9. That in the event either party brings suit for enforcement of disagreement, the prevailing party shall be entitled to attorney's fees and court costs in addition to any other remedy afforded by law.

Article 10. The Contractor shall guarantee the complete project against poor workmanship and faulty materials for a period of twelve (12) months after final payment and shall immediately correct any defects which may appear during this period upon notification by the City or the Engineer.

Article 11. The making and acceptance of the final payment shall constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

Article 12. Contract Term: The date to substantially complete this project is September 6, 2022.

\*\*\*\*\*

IN WITNESS WHEREOF the parties hereto have executed this Agreement on the day and date first above written in three (3) counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original contract:

THE CITY OF HOLLYWOOD, FLORIDA  
Party of the First Part

By: \_\_\_\_\_ (SEAL)  
JOSH LEVY, MAYOR

ATTEST:

\_\_\_\_\_  
PATRICIA A. CERNY, MMC, CITY CLERK

\*\*\*\*\*

CONTRACTOR  
Party of the Second Part

WHEN THE CONTRACTOR IS AN INDIVIDUAL:

Signed, sealed and delivered in the presence of:

_____	_____ (SEAL)
(Witness)	(Signature of Individual)

_____	_____
(Witness)	(Signature of Individual)

\*\*\*\*\*

WHEN THE CONTRACTOR IS A SOLE PROPRIETORSHIP OR OPERATES UNDER A TRADE NAME:

Signed, sealed and delivered in the presence of:

_____	_____
(Witness)	(Name of Firm)
_____	_____ (SEAL)
(Witness)	(Signature of Individual)

\*\*\*\*\*

WHEN THE CONTRACTOR IS A PARTNERSHIP:

_____	_____
(Witness)	(Name of Firm) a Partnership
_____	BY: _____ (SEAL)
(Witness)	(Partner)

\*\*\*\*\*



WHEN THE CONTRACTOR IS A CORPORATION:

Attest:

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
(Correct Name of Corporation)

BY: \_\_\_\_\_ (SEAL)  
President

\*\*\*\*\*

APPROVED AS TO FORM AND LEGAL  
SUFFICIENCY for the use and reliance of  
the City of Hollywood, Florida only:

APPROVED AS TO FINANCE:

By \_\_\_\_\_  
DOUGLAS R. GONZALES  
City Attorney

By \_\_\_\_\_  
DAVID E. KELLER  
Financial Services Director



CERTIFICATE

**STATE OF FLORIDA)  
COUNTY OF BROWARD)**

**I HEREBY CERTIFY** that a meeting of the Board of Directors of \_\_\_\_\_,  
a corporation under the laws of the State of \_\_\_\_\_, was held on \_\_\_\_\_, 20\_\_\_\_, and the  
following resolution was duly passed and adopted:

"RESOLVED, that \_\_\_\_\_ as \_\_\_\_\_ President of the corporation, be and he is  
hereby authorized to execute the contracts on behalf of this corporation, and that his  
execution thereof, attested by the Secretary of the corporation and with corporate seal  
affixed, shall be the official act and deed of this corporation."

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the corporation,  
this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Secretary

- END OF SECTION -

SECTION 00610

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we \_\_\_\_\_,

as Principal, and \_\_\_\_\_,

as Surety, are held and firmly bound unto the City of Hollywood in the sum of

\_\_\_\_\_ Dollars (\$\_\_\_\_\_),

for the payment of said sum we bind ourselves, our heirs, executors, administrators and assigns, jointly and severally, for the faithful performance of a certain written contract, dated the \_\_\_\_\_ day of \_\_\_\_\_,

20\_\_\_\_ entered into between the Principal and the City of Hollywood, Florida, for the installation of **INJECTION WELLS 1 & 2 MECHANICAL INTEGRITY TESTING, Bid No. IFB-4714-22-OT.**

A copy of said Contract, No. **IFB-4714-22-OT**, is incorporated herein by reference and is made a part hereof as if fully copied herein.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that if the Principal shall in all respects comply with the terms and conditions of said Contract and his obligations thereunder, including all of the Contract Documents (that include the Notice to Bidders, Instructions to Bidders, Proposal, Proposal Bid Form, Basis of Payment, Approved Bid Bond, Trench Safety Form, Information Required from Bidders, Contract, Performance Bond, Payment Bond, General and Supplementary General Conditions, Technical Specifications, Addenda and Drawings), therein referred to and made a part thereof, and such alterations as may be made in said Drawings and Specifications as therein provided for, and shall indemnify and save harmless the City of Hollywood against and from all expenses, damages, injury or conduct, want of care of skill, negligence or default, including patent infringement on the part of said Principal, his agents or employees, in the execution or performance of said Contract, including errors in the Drawings furnished by said Principal, and further, if the Principal shall promptly make payments to all who supply him, with labor and/or materials, used directly or indirectly by the Principal in the prosecution of the work provided for in said Contract, then this obligation shall be null and void; otherwise, the Principal and Surety, jointly and severally, agree to pay the City of Hollywood any difference between the sum that the City of Hollywood may be obliged to pay for the completion of said work, by Contract or otherwise, and the sum that the City of Hollywood would have been obliged to pay for the completion said work had the Principal properly executed all of the provisions of said Contract, and any damages, whether direct, indirect, or consequential, which the City of Hollywood may incur as a result of the failure of the said Principal to properly execute all of the provisions of said Contract.

AND, the said Principal and Surety hereby further bind themselves, their successors, executors, administrators and assigns, jointly and severally, that they will amply and fully protect the City of Hollywood against, and will pay any and all amounts, damages, costs

and judgments which may be recovered against or which the Owner may be called upon to pay to any person or corporation by reason of any damage arising from the performance of the said work, repair or maintenance thereof, or the manner of doing the same, or his agents or his servants, or the infringements of any patent rights by reason of the use of any material furnished or work done, as aforesaid or otherwise.

AND, the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications and Drawings accompanying the same, shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications and Drawings.

WHEN THE PRINCIPAL IS AN INDIVIDUAL:

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Signature of Individual)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Printed Name of Individual)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Address)

WHEN THE PRINCIPAL IS A SOLE PROPRIETORSHIP OR OPERATES UNDER A TRADE NAME:

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Name of Firm)

\_\_\_\_\_  
(Address)

By: \_\_\_\_\_  
(Seal)  
(Signature of Individual)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
Address

\*\*\*\*\*

WHEN THE PRINCIPAL IS A PARTNERSHIP:

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Name of Partnership)

\_\_\_\_\_  
(Address)

By: \_\_\_\_\_  
(Seal)  
(Partner)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Printed Name of Partner)

\_\_\_\_\_  
Address

\*\*\*\*\*

WHEN THE PRINCIPAL IS A CORPORATION:

Attest:

\_\_\_\_\_  
(Secretary)

\_\_\_\_\_  
(Name of Corporation)

By: \_\_\_\_\_  
(Seal)  
(Affix Corporate Seal)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Official Title)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, \_\_\_\_\_, certify that I am the Secretary of the corporation named as Principal in the within bond; that \_\_\_\_\_, who signed the said bond on behalf of the Principal was then \_\_\_\_\_ of said corporation; that I know his signature, and his signature thereto is genuine; and that said Bond was duly signed, sealed and attested for and on behalf of said corporation by authority of its governing body.

\_\_\_\_\_  
Secretary (SEAL)

TO BE EXECUTED BY CORPORATE SURETY

Attest:

\_\_\_\_\_  
(Secretary)

\_\_\_\_\_  
(Corporate Surety)

\_\_\_\_\_  
(Business Address)  
\_\_\_\_\_

By: \_\_\_\_\_  
(Affix Corporate Seal)

\_\_\_\_\_  
(Attorney-In-Fact)

\_\_\_\_\_  
(Name of Local Agency)

\_\_\_\_\_  
(Business Address)  
\_\_\_\_\_

STATE OF FLORIDA

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared, \_\_\_\_\_ to me well known, who being by me first duly sworn upon oath, says that he is the attorney-in-fact for the \_\_\_\_\_ and that he has been authorized by \_\_\_\_\_ to execute the foregoing bond on behalf of the CONTRACTOR named therein in favor of the City of Hollywood, Florida.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public, State of Florida

My Commission Expires:

\*\*\*\*\*

APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY  
for the use and reliance of the  
City of Hollywood, Florida only:

APPROVED AS TO FINANCE:

By \_\_\_\_\_  
Douglas R. Gonzales  
City Attorney

By \_\_\_\_\_  
David E. Keller  
Financial Services Director

- END OF SECTION -

SECTION 00620

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, \_\_\_\_\_  
Name Address Tel. No.

As Principal and \_\_\_\_\_  
Name Address Tel. No.

as Surety, are held and firmly bound to the CITY OF HOLLYWOOD, FLORIDA herein called the City, in the sum of \_\_\_\_\_

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) for the payment of said sum we bind ourselves, our heirs, executors, administrators and assigns, jointly and severally, for the faithful performance of a certain written contract dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, entered into between the Principal and the City of Hollywood, Florida for the **INJECTION WELLS 1 & 2 MECHANICAL INTEGRITY TESTING, Bid No.IFB-4714-22-OT.**

Which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

THE CONDITION of this bond is that if Principal promptly makes payments to all claimants defined in Section 255.05 (1), F.S., supplying Principal with labor, materials or supplies used directly or indirectly by principal in the prosecution of the work provided for in the Contract, then this bond shall be null and void and of no further force and effect; otherwise to remain in full force and effect.

Said surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or any other changes in or under contract documents and compliance or noncompliance with any formalities connected with the contract does not affect Surety's obligation under this bond and Surety waives notice of any such change, extension of time, alteration or addition to the terms of the Contract or any other changes, compliance, or noncompliance to the terms of the Contract or to the Work or to the Specifications.

This bond is furnished pursuant to the statutory requirements for bond on public works projects being Florida Statute 255.05. Claimants are hereby notified that the Statute 255.05(2) specifically requires that notice be given to Contractor within 45 days after beginning to furnish labor, materials or supplies for the prosecution of the work that claimants intends to look to the bond for protection. Further notice is hereby given claimants that written notice of nonpayment within ninety (90) days after performance of the labor or after complete delivery of the materials or supplies must be delivered to the Contractor and to the Surety. Further notice is hereby given that no action for labor, materials or supplies may be instituted against the Contractor or the Surety on the bond after one year for the performance of the labor or completion of delivery of the materials or supplies.

Without modifying the foregoing, this bond shall be construed as requiring of the principal and surety no more and no less than is specified in F.S. 255.050.

SIGNED AND SEALED, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**PRINCIPAL:**

ATTEST:

_____	_____
	(Signature)
_____	_____
	(Title)

(SEAL)

**SURETY:**

	_____
	(Surety)
ATTEST:	
_____	_____
	(Signature)
_____	_____
	(Attorney-in-Fact)

\*\*\*\*\*

APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY  
for the use and reliance of the  
City of Hollywood, Florida only:

By \_\_\_\_\_  
Douglas R. Gonzales  
City Attorney

APPROVED AS TO FINANCE:

By \_\_\_\_\_  
David E. Keller  
Financial Services Director

- END OF SECTION -



## SECTION 00700

## GENERAL CONDITIONS

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**SECTION 00700****GENERAL CONDITIONS****CITY OF HOLLYWOOD, FLORIDA  
GENERAL CONDITIONS  
FOR CONSTRUCTION CONTRACTS****ARTICLE 1 - DEFINITIONS**

In the interpretation of these Contract Documents the following terms shall have the meaning indicated:

**ADDENDA** - Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the Contract Documents.

**CHANGE ORDER** - A written order to CONTRACTOR executed in accordance with City procurement procedures, as amended authorizing an addition, deletion or revision in the work, or an adjustment in the Contract Price or the Contract Time, issued after the date of Award.

**CITY (OWNER)** - The City of Hollywood, Florida.

**COMMERCIALLY USEFUL FUNCTION** - shall exist when the Local MBE/SBE is responsible for execution of the work for the contract and is carrying out the responsibilities by actually performing, managing and supervising the work involved. The Local MBE/SBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, and ordering the material, and installing. A commercially useful function is not performed if the role of the qualified Local MBE/SBE is that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of qualified local MBE or qualified local SBE participation.

**COMMISSION** - The City Commission of the City of Hollywood, Florida, being the legislative body of the CITY as set forth in the City of Hollywood Charter.

**CONTRACT** - The written agreement between the CITY and the CONTRACTOR covering the work to be performed in accordance with the other Contract Documents which are attached to the Contract and made a part thereof.

**CONTRACTOR** - The person, firm, or corporation with whom the CITY has entered into the Contract.

**CONTRACT DOCUMENTS** - The Notice to Bidders, Instruction to Bidders, Proposal, Information Required of Bidders, all Bonds, Agreement, and all supporting documents, these General Requirements and Covenants, the Specifications, Drawings and Permits, together with all Addenda and Change Orders issued with respect thereto.

**CONTRACT PRICE** - Total monies payable by the CITY to the CONTRACTOR under the terms and conditions of the Contract Documents.

**CONTRACT TIME** - The number of days agreed to in the Proposal, commencing with the date of the Notice to Proceed for completion of the work.

**CONTROL** - shall mean having the primary power, direct or indirect, to influence the management of a business enterprise. The controlling party must have the demonstrable ability to make independent and

unilateral business decisions on a day-to-day basis, as well as the independent and unilateral ability to make decisions which may influence and chart the future course of the business.

**DATE OF SUBSTANTIAL COMPLETION** - The date when the work on the project, or specified part thereof, is substantially completed in accordance with the Contract Documents, such that the CITY can occupy or utilize the project or specified part thereof for the use and purpose for which it was intended as determined and accepted by the Engineer.

**DAYS** - Calendar days of 24 hours measured from midnight.

**DRAWINGS** - The drawings which show the character and scope of the work to be performed and which have been prepared by the DESIGN ENGINEER approved by ENGINEER and are referred to in and are a part of the Contract Documents.

**ENGINEER** - The Director of Utilities of the CITY of Hollywood, Florida, or his authorized designee.

**EXCUSABLE DELAY** - Delay caused by the CITY, hurricane, tornadoes, fires, floods, epidemics or labor strikes.

**GENERAL CONDITIONS** - That segment of the Contract Specifications incorporating the Provisions common to all CITY Construction Contracts.

**INEXCUSABLE DELAY** - Any delay caused either (i) by events or circumstances within the control of the CONTRACTOR not specified in the definition of excusable delay.

**INSPECTOR** - The authorized field representative of the ENGINEER.

**LIQUIDATED DAMAGES** - The amount prescribed in the General Requirements to be paid the CITY, or to be deducted from any payments due the CONTRACTOR for each day's delay in completing the whole or any specified portion of the work beyond the Contract Time.

**LOCAL BUSINESS** – shall mean a business which is duly licensed and authorized to engage in the business at issue and which maintains a permanent principal place of operation with full time personnel within the corporate limits of the City of Hollywood, Florida. A Post Office Box (P.O. Box) shall not be sufficient to constitute a “local business.” The business has the burden of demonstrating that it meets this definition.

**MINORITY** – shall mean a person who is a citizen or lawful permanent resident of the United States and who is a Woman, Black American, Hispanic American, Native American, Asian Pacific American, Subcontinent Asian American or other minorities found to be disadvantaged by the SBA.

**NOTICE OF AWARD** - The written notice by the CITY to the successful Bidder stating that upon his execution of the Agreement and other requirements as listed therein within the time specified the CITY will sign and deliver the Agreement.

**MINORITY BUSINESS ENTERPRISE** – shall mean a currently functioning business enterprise which (a) is an independent for profit business concern that is a least 51% owned by minority group member(s); (b) is independently operated and controlled by the minority group member(s); (c) demonstrates the capability to perform a line of business; (d) provides a commercially useful function according to the customs and practices of the industry and (e) is qualified by the City of Hollywood, Florida.

**NOTICE TO PROCEED** - A written notice by the ENGINEER to the CONTRACTOR fixing the date on which the Contract Time will commence to run and on which the CONTRACTOR shall start to perform his obligation under the Contract Documents.



"OR EQUAL" - Equivalent or superior in construction, efficiency and effectiveness to a type, brand, model or process called out in the Contract Documents to establish a basis of quality as determined by the ENGINEER.

SHOP DRAWINGS - All certified affidavits, drawings, diagrams, illustrations, schedules and other data which are specifically prepared by CONTRACTOR, a Subcontractor, manufacturer, fabricator, supplier or distributor to illustrate some portion of the work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a manufacturer, fabricator, supplier or distributor and submitted by CONTRACTOR to illustrate material or equipment for some portion of the WORK.

SMALL BUSINESS ENTERPRISE – shall mean a currently functioning business enterprise which (a) is an independent for profit concern that is at least 51% owned by non-minority group member(s); (b) is independently operated and controlled by the non-minority group member(s); (c) demonstrates the capability to perform in a line of business; (d) provides a commercially useful function according to the customs and practices of the industry; and (e) is qualified by the City of Hollywood, Florida.

NOTE: In the event 50% of the local business is owned by a minority group member and 50% of the local business is owned by a non-minority group member, the designation selected on the Local Minority Business Enterprise and Local Small Business Enterprise Program application will be accepted.

SMALL BUSINESS NET WORTH SIZE STANDARD – The size standard for a minority business enterprise and a small business enterprise that participates in the City of Hollywood's Local MBE/SBE Program shall mean an independently owned and operated business concern that employs 50 or fewer permanent full-time employees and whose annual net worth does not exceed \$2,000,000. To determine the net worth, the City shall consider the most recent annual financial statement for the business or; in the case of sole proprietorships, annual financial statements for the business and the business owner. The applicant must provide documentation to demonstrate that the business employs 50 or fewer permanent full-time employees averaged over a two year period.

SPECIFICATIONS - Division 1 through 50 of these Contract Documents, consisting of administrative details and written technical descriptions of materials, equipment, standards and workmanship.

SUPPLEMENTARY CONDITIONS - Division 1 of the Contract Specifications incorporating the provisions peculiar to a specific project.

SUBCONTRACTOR - An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the work

SURETY - The person, firm or corporation responsible for the Bidder's acts in the execution of the Contract, or which is bound to the CITY with and for the CONTRACTOR to insure performance of the Contract and payment of all obligations pertaining to the work.

WORK - All the work materials or products specified, indicated, shown or contemplated in the Contract Documents to construct and complete the improvement, including all alterations, modifications, amendments or extension thereto made by Change Orders.

## ARTICLE 2 - ORGANIZATIONAL ABBREVIATIONS

Abbreviations of organizations which may be used in these Specifications are:

AASHTO:	American Association of State Highway and Transportation Officials
ACI:	American Concrete Institute
AIA:	American Institute of Architects
AISC:	American Institute of Steel Construction
AITC:	American Institute of Timber Construction
ANSI:	American National Standards Institute
APWA:	American Public Works Association
ASTM:	American Society for Testing and Materials
ASCE:	American Society of Civil Engineers
ASME:	American Society of Mechanical Engineers
ASHRAE:	American Society of Heating, Refrigerating and Air Conditioning Engineers
AWPA:	American Wood Preservers Association
AWWA:	American Water Works Association
AWS:	American Welding Society
BCEQCB:	Broward County Environmental Quality Control Board
CRSI:	Concrete Reinforcing Steel Institute
FDEP:	Florida Department of Environmental Protection
FDNR:	Florida Department of Natural Resources
FDOT:	Florida Department of Transportation
FPL:	Florida Power and Light
IEEE:	Institute of Electrical and Electronic Engineers
NACE:	National Association of Corrosion Engineers
NCPI:	National Clay Pipe Institute
NEC:	National Electrical Code

NEMA:	National Electrical Manufacturers Association
NFPA:	National Fire Protection Association
OSHA:	Occupational Safety and Health Act
PCI:	Prestressed Concrete Institute
SFBC:	South Florida Building Code, Broward Edition, Latest Revision
SFWMD:	South Florida Water Management District
SSPC:	Structural Steel Painting Council
UL:	Underwriters' Laboratories, Inc.
UNCLE:	Utility Notification Center for Location before Excavation (1-800-432-4770)
USEPA:	United States Environmental Protection Agency
USGS:	United States Geological Survey
WWEMA:	Water and Wastewater Equipment Manufacturers Association

### ARTICLE 3 - MISCELLANEOUS PRELIMINARY MATTERS

#### 3.1 Contract Document Discrepancies:

Any discrepancies, conflicts, errors or omissions found in the Contract Documents shall be promptly reported to the ENGINEER who will issue a correction, if necessary, in writing. The CONTRACTOR shall comply with any corrective measures regarding the same as prescribed by the ENGINEER.

#### 3.2 Submissions:

Unless indicated otherwise in the Contract Documents, within seven days subsequent to the CONTRACTOR executing and submitting the required documents of Article 15 in the Instructions to Bidders, the CONTRACTOR shall submit to the ENGINEER an estimated progress schedule indicating the starting and completion days of the various stages of the work. A preliminary Schedule of Values and a preliminary schedule of Shop Drawing submissions may also be required by Section 01300 of Division 1 - General Requirements.

#### 3.3 Pre-construction Conference:

The Contractor will be required to attend a Pre- Construction Conference for review of the above schedules, establishing procedures and establishing a working understanding among the parties as to the work.

#### 3.4 Contract Time:

The Contract Time will commence on the date of the Notice to Proceed and shall exist for the total number of days as specified in the Proposal Bid Form as modified by any subsequent Change Orders, Unless the CONTRACTOR fails to complete the requirements of the Instructions to Bidders, the additional time in days (including weekends) required to correctly complete the documents will be deducted by CITY from the Contract Time specified by the CONTRACTOR in this Proposal.

#### 3.5 Computation of Time:

When any period of time is referred to the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a legal holiday, such day shall be omitted from the computation.

#### 3.6 Commencement of Work:

The CONTRACTOR shall not perform work at the site prior to the date of the Notice to Proceed.

#### 3.7 Extension of Contract Time:

Extensions of time shall be based solely upon the effect of delays to the work as a whole. Extensions of time shall not be granted for delays to the work, unless the CONTRACTOR can clearly demonstrate, through schedule analysis, that the delay to the work as a whole arose in accordance with Article 11, Changes in Contract Time and that such delays did or will, in fact, delay the progress of work as a whole. Time extensions shall not be allowed for delays to parts of the work that are not on the critical path of the Project schedule. Time extensions shall not be

granted until all float or contingency time, at the time of the delay, available to absorb specific delays and associated impacts, is used.

**3.8**            **Notice and Service Thereof:**

All notices, demands, requests, instructions, approvals and claims shall be in writing. Notices, demands, etc. shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the business address as defined at the Pre-Construction Conference.

**3.9**            **Separate Contract:**

The CITY reserves the right to let other Contracts in connection with this Project. The CONTRACTOR shall afford other Contractors reasonable opportunity for the introduction and storage for their materials and the execution of their work and shall properly connect and coordinate his work with theirs.

**3.10**           **Assignments of Contract:**

No assignment by the CONTRACTOR of the Contract or of any part thereof, or any monies due or to become due thereunder shall be made.

**3.11**           **Patents:**

It is mutually understood and agreed that without exception, Contract prices are to include all royalties and costs arising from patents, trademarks, and copyrights in any way involved in the work. It is the intent that whenever the Contractor is required or desired to use any design, device, material or process covered by letters, patent, or copyright, the right for such use shall be provided for by suitable legal agreements with the Patentee or Owner and a copy of this agreement shall be filed with the ENGINEER. However, whether or not such an agreement is made or filed as noted, the CONTRACTOR and the Surety in all cases shall indemnify and save harmless the CITY from any and all claims for infringement by reason of the use of any such patented design, device, material or process, to be performed under the Contract, and shall indemnify the said CITY from any costs, expenses, and damages which it may be obliged to pay, by reason of such infringement, at any time during the prosecution or after the completion of the work.

**3.12**           **Federal Excise Tax:**

The forms needed for applying for exemption certificates for materials and equipment, normally subject to the Federal Excise Tax, may be obtained from the Director of Internal Revenue, Jacksonville, Florida.

The CONTRACTOR is solely responsible for obtaining the desired exemption certificate from the Federal Government.

### 3.13 Savings Due to Excise Tax Exemptions:

The Bidder shall include in the Bid price the estimated cost of all goods, supplies and equipment which will be incorporated in the Work and the taxes that the Bidder would be required to pay if the Bidder were to purchase such goods, supplies or equipment. By subsequent Change Order(s), the parties shall reduce the Bid price to reflect any goods, supplies and equipment purchased directly by City and the resulting tax savings due to City's exemption from Excise Taxes.

CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the laws and regulations of the State of Florida and its political subdivisions. Consistent with the tax exemption for municipalities provided by state law, CITY and CONTRACTOR shall jointly operate so that CITY may purchase directly, goods, supplies and equipment which will be incorporated into the Work. The goods, supplies and equipment that will be purchased by CITY shall be approved in advance by the parties.

With respect to all goods, supplies and equipment to be purchased by CITY, CONTRACTOR shall, on behalf of CITY, take all actions necessary and appropriate to cause all purchases to be made and shall be responsible for delivery of all such goods, supplies and equipment, including verification of correct quantities and documents or orders, coordination of purchases and delivery schedules, sequence of delivery, unloading, handling and storage through installation, obtaining warranties and guarantees required by the Contract Documents, inspection and acceptance of the goods, supplies and equipment at the time of delivery, and other arrangements normally required for the particular goods, supplies or equipment purchased. Unless otherwise directed by CITY, such actions shall also include taking the lead in efforts to resolve any and all disputes with the vendor. CONTRACTOR shall ensure that each vendor of goods, supplies and equipment purchased by CITY agrees in writing to the terms and conditions contained in CITY'S standard purchase order, which terms and conditions are set forth in Section 00800 of the Contract Documents. Even though CITY may purchase such goods, supplies and equipment, the goods, supplies and equipment shall be stored at the site in the same manner as goods, supplies and equipment purchased by CONTRACTOR.

CONTRACTOR shall hold CITY harmless from delays in manufacturing, delivery, and other unforeseen conditions that may arise as part of the procurement of CITY-purchased goods, supplies and equipment.

### 3.14 Overtime Work:

The CONTRACTOR shall receive no additional compensation for overtime work, i.e., work in excess of eight hours in any one calendar day or 40 hours in any one calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the ENGINEER in writing. Additional compensation will be paid the CONTRACTOR for overtime work only in the event extra work is ordered by the ENGINEER and the Change Order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by the CONTRACTOR for overtime work of a similar nature in the same locality.

### 3.15 Inspections and Testing during Overtime:

The CONTRACTOR shall establish a normal work schedule which does not exceed eight hours per day in a normal work day nor forty hours per week in a normal work week. Normal work days shall be Monday through Friday. Whenever CONTRACTOR's work requires scheduled overtime,



unless such overtime work is specifically required by the Contract Documents, CONTRACTOR shall reimburse the CITY for the extra costs incurred for providing Inspectors. Overtime shall be scheduled only after CONTRACTOR obtains written permission from the CITY. A change order shall be prepared to cover the CITY costs. Inspector costs shall be charged to the CONTRACTOR at a rate of \$80.00 per hour with a minimum of four hours charged for weekends and holidays. If the CONTRACTOR has an overtime work force size of fifty or more persons a second Inspector will be required and the costs for two Inspectors will be \$160.00 per hour.

3.16            Nights, Sunday or Holiday Work:

Except upon specific permission of the ENGINEER, the CONTRACTOR shall not perform any work on Sundays or on legal State or Municipal holidays. In accordance with City of Hollywood Code of Ordinances, Section 21.49, no work between 6:00 p.m. and 8:00 a.m. will be permitted, except in case of an emergency, that violates Section 21.49 concerning noise levels. All costs of testing and inspection performed during night, Sunday or holiday work shall be borne by the CONTRACTOR. The CONTRACTOR shall notify all regulatory agencies, including but not limited to the City Police Department, Fire Department, and Code Enforcement Department.

3.17            Injury or Damage Claims:

Should CITY or CONTRACTOR suffer injury or damage to their person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim shall be made in writing to the other party within a reasonable time of the first observance of such injury or damage. However, nothing herein shall be deemed to affect the rights, privileges and immunities of City as are set forth in Section 768.28, Florida Statutes.

## ARTICLE 4 - CONTRACT DOCUMENTS

### 4.1 Intent:

The Contract Documents comprise the entire Agreement between the CITY and CONTRACTOR concerning the work. The Contract Documents can be altered only by Change Order. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. It is the intent of the Contract Documents that the CONTRACTOR, for due consideration, shall furnish all equipment, material, supervision and labor, (except as may be specifically noted otherwise) required or necessary to complete the work in total accordance with said Documents. It is the intent of the Drawings and Specifications to describe the Project to be constructed in accordance with the Contract Documents. Any work that may reasonably be inferred from the Drawings or Specifications as being required to produce the intended result shall be supplied whether or not it is specifically called for.

### 4.2 Order of Precedence of Contract Documents:

In resolving differences resulting from conflicts, errors or discrepancies in any of the following Contract Documents, the order of precedence shall be as follows:

1. Permits
2. Change Orders
3. Contract Agreement
4. Specification
5. Drawings

Within the Specifications the order of precedence is as follows:

1. Addenda
2. Notice to Bidders
3. Instructions to Bidders
4. Supplementary General Conditions
5. General Conditions
6. Division 1, General Requirements
7. Technical Specifications
8. Referenced Standard Specifications

With reference to the Drawings the order of precedence is as follows:

1. Figures Govern over Scaled Dimensions
2. Detail Drawings Govern over General Drawings
3. Change Order Drawings Govern over Contract Drawings
4. Contract Drawings Govern over Standard or Shop Drawings

### 4.3 Reference To Standards:

Any reference to standard Specifications, manuals or codes of any organization or governmental authority shall mean the latest edition, in effect as of the Bid Opening Date.

## ARTICLE 5 - BONDS AND INSURANCE

### 5.1 Bid Guarantee:

Bidders maybe required to submit a Bid Guarantee in an amount indicated in the NOTICE TO BIDDERS. This Guarantee may be a Certified or Cashier's Check on a solvent National or State Bank, or a Bid Bond written by a Surety licensed to do business in Florida and rated at least "A", Class X in the latest edition of "Best's Key Rating Guide" published by A.M. Best Company.

### 5.2 Performance and Payment Bond:

CONTRACTOR shall furnish Performance and Payment Bonds, in amounts equal to the Contract Price as Security for the faithful performance and payment of CONTRACTOR's obligations. The Bond or Bonds shall remain in effect one year after the date of final payment. The Surety must be qualified as specified above in Paragraph 5.1. However, the City reserves the right to require additional bonds as set forth in Article 5 of the Contract.

### 5.3 Signatures:

All Bonds signed by an Agent must be accompanied by a Certified copy of the authority to act, with said copy having been signed (not typed nor printed) by an Officer of the Surety and carrying the seal of the Surety.

### 5.4 Insurance Coverage:

Within ten days from Notice of Award the CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR's operations under the Contract or Contract Documents, whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- A. Claims under Workmen's Compensation, Disability Benefit and other similar employer's liability acts;
- B. Claims for damages because of bodily injury, sickness or disease, or death, or death of his employees;
- C. Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;
- D. Claims for damages covered by personal injury liability which are sustained (1) by any person as a result of any offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person;
- E. Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and
- F. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

## 5.5            Certificates of Insurance:

Within ten days of award, the Contractor shall obtain a Certificate of Insurance reflecting the necessary coverages as required by the Contract Documents. Certificates of Insurance shall contain a provision that coverages afforded under the policies will not be canceled until at least 30 days prior written notice has been given to the CITY. The City of Hollywood must be named as additional insured on all coverage with the exception of Workmen's Compensation. Policies shall be issued by companies authorized to do business under the Laws of the State of Florida. Policyholders and Financial Ratings must be no less than "A" and Class X respectively in the latest edition of "Best Key Rating Guide", published by A.M. Best Company.

## 5.6            Insurance Limits of Liability:

The insurance required by this Article shall be written for no less than the level of liability specified in "Insurance Requirements", Section 2 of the Supplementary General Conditions, or required by law, whichever is greater. The insurance shall include contractual liability insurance applicable to the CONTRACTOR's obligations under this contract.

The level required in Section 2 of the Supplementary General Conditions will not be reduced for any reason.

ARTICLE 6 - AVAILABILITY OF LAND; REFERENCE POINTS6.1            Rights-of-Way:

Lands or Rights-of-Way for the work to be constructed under the Contract will be provided by the CITY. Nothing contained in the Contract Documents shall be interpreted as giving the CONTRACTOR exclusive occupancy of the lands or Rights-of-Way provided. Any additional lands or Rights-of-Way required for construction operations shall be provided by the CONTRACTOR at his own expense; provided, that the CONTRACTOR shall not; and the CITY nor the ENGINEER shall not be liable for any claims or damages resulting from the CONTRACTOR's unauthorized trespass or use of any such properties.

6.2            Permits:

When required by Article 21 of the Instruction to Bidders, the CONTRACTOR shall secure, from the agencies having jurisdiction, the necessary permits to create obstructions, to make excavations if required under the Contract, and to otherwise encroach upon Rights-of-Way, and to present evidence to the ENGINEER that such permission has been granted, before work is commenced. Regulations and requirements of all agencies concerned shall be strictly adhered to in the performance of the Contract. The enforcement of such requirements under the Contract shall not be made the basis for additional compensation.

6.3            Lines and Grades:

The CONTRACTOR shall furnish all grades and all other lines required for the proper execution of the work.

## ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

### 7.1           Laws/Regulations to Be Observed:

The CONTRACTOR shall familiarize himself and comply with all Federal, State, County and CITY laws, by-laws, ordinances or regulations controlling the action or operation of those engaged or employed in the work or affecting material used, and govern himself in accordance with them. He shall indemnify and save harmless the CITY and all of its officers, agents and employees against any claims or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, orders or decrees, whether by himself or his employees or Subcontractors.

### 7.2           Indemnification of City:

- (a) CONTRACTOR shall, at all times hereafter, indemnify, hold harmless and defend CITY, its agents, servants and employees from and against any claim, demand or cause of action of any kind or nature arising out of error, omission or negligent act of CONTRACTOR, its agents, servants or employees in the performance of services under this Agreement.
- (b) CONTRACTOR further agrees, at all times hereafter, to indemnify, hold harmless and defend CITY, its agents, servants and employees from and against any claim, demand or cause of action of any kind or nature arising out of any conduct or misconduct of CONTRACTOR resulting from the performance of services under the Contract Documents.
- (c) The obligations of the CONTRACTOR above shall not extend to the liability of the City of Hollywood.
- (d) The provisions of (a) and (b) above shall survive the expiration or earlier termination of the Contract Documents.

### 7.3           Guarantee of Payments:

The CONTRACTOR guarantees the payments of all just claims for materials, supplies, tools, labor and other just claims against him, or any Subcontractor in connection with this Contract, and his bond will not be released by final acceptance and payment by the CITY unless all such claims are paid or released.

#### 7.4            Permits and Licenses:

The CONTRACTOR shall obtain all permits and licenses required by the Contract Documents. A copy of the permit(s) and such conditions and requirements thereon are a part of the Contract Documents. Failure to obtain such permits or licenses shall subject the CONTRACTOR to the provisions of the South Florida Building Code, Broward Edition.

#### 7.5            Emergencies:

In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER or CITY, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice of any significant changes in the work or deviations from the Contract Documents caused thereby.

#### 7.6            Substitutes or "Or Equal":

##### A.       Substitutes or "Or-Equal" Materials or Equipment:

Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by the ENGINEER if sufficient information submitted by the CONTRACTOR to allow the ENGINEER to determine that the material or equipment proposed is equivalent or equal to that named. The ENGINEER will be allowed 30 days within which to evaluate each proposed substitute. The ENGINEER will be the sole judge of acceptability, and NO SUBSTITUTE WILL BE ORDERED, INSTALLED OR UTILIZED WITHOUT THE ENGINEER's PRIOR WRITTEN ACCEPTANCE which will be evidenced by either a Change Order or an approved set of Shop Drawings. Requests for review of substitute items of material and equipment will not be accepted by the ENGINEER from anyone other than the CONTRACTOR. The procedure for review by the ENGINEER is as follows:

If the CONTRACTOR wishes to furnish or use a substitute item of material or equipment, the CONTRACTOR shall make written application to the ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. In addition, the application shall

1. State that the evaluation and acceptance of the proposed substitute will not prejudice the CONTRACTOR's achievement of completion on time.
2. State whether or not acceptance of the substitute for use in the WORK will require a change in any of the Contract Documents to adapt design to the proposed substitute. The CONTRACTOR shall be responsible for any extra design adaptation costs associated with a proposed substitute.
3. State whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty.



4. Provide complete substitute identification and description, including manufacturer's and local distributor's name and address, performance and test data, and reference standards.
  5. Provide samples, as required by ENGINEER.
  6. Provide name and address of similar projects on which the proposed substitute has been used, and date of installation.
  7. Identify all variations of the proposed substitute from that specified.
  8. Indicate available maintenance, repair and replacement service.
  9. Submit an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other Contractors affected by the resulting change. The CONTRACTOR shall be responsible for the costs of redesign and claims of other Contractors.
  10. Provide any additional data about the proposed substitute as the ENGINEER may require of the CONTRACTOR.
- B. Substitute means, method, technique, sequence or procedure of construction:
- If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, the CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the ENGINEER, if the CONTRACTOR submits sufficient information to allow the ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by the ENGINEER will be similar to that provided in Paragraph 7.6 A.
- C. The CITY may require the CONTRACTOR to furnish at the CONTRACTOR's expense, a special performance guarantee or other surety with respect to any substitute.
- D. The ENGINEER will record time required by the ENGINEER and/or the ENGINEER's consultants in evaluating substitutions proposed by the CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not the ENGINEER accepts a proposed substitute, THE CONTRACTOR SHALL REIMBURSE THE CITY FOR THE CHARGES OF THE ENGINEER AND THE ENGINEER's CONSULTANTS FOR EVALUATING EACH PROPOSED SUBSTITUTE.
- E. Any and all costs which result from changes to/adaptations of the work shall be paid by the CONTRACTOR including but limited to design, materials, installation, etc.

## 7.7 Shop Drawings:

Shop Drawing submittals shall be as follows:

- A. The CONTRACTOR shall submit a sufficient number of copies of each Shop Drawing to enable the ENGINEER to retain three copies unless additional copies are specified in the Contract Documents. Resubmissions of Shop Drawings shall be made in the same quantity until final approval is obtained.

- B. The CONTRACTOR shall submit Shop Drawings for all equipment, apparatus, machinery, fixtures, piping, fabricated structures, manufactured articles and structural components Manufacturer's Certified Affidavit that the item supplied complies with the design Specifications, and all other submittal requirements.
- C. Shop Drawings for structural components, electrical or mechanical systems shall be Certified by a Registered Engineer of the discipline involved.
- D. The CONTRACTOR shall thoroughly review and check the Shop Drawings, and each and every copy shall show his approval thereon. If the Shop Drawings show or indicate departures from the Contract requirements, the CONTRACTOR shall make specific mention thereof in his letter of transmittal. Failure to point out such departures shall not relieve the CONTRACTOR from his responsibility to comply with the Drawings and Specifications.
- E. No approval will be given to partial submittals of Shop Drawings for items which interconnect and/or are interdependent. It is the CONTRACTOR's responsibility to assemble the Shop Drawings for all such interconnecting and/or interdependent items, check them himself and then make one submittal to the ENGINEER along with his comments as to compliance, non-compliance, or features requiring special attention.
- F. If catalog sheets or prints of manufacturer's standard drawings are submitted as Shop Drawings, any additional information or changes on such Drawings shall be typewritten or lettered in ink.
- G. The CONTRACTOR shall keep one set of Shop Drawings marked with the ENGINEER's approval at the job site at all times.
- H. Where a Shop Drawing or sample is required by the Specifications, no related work shall be commenced until the submittal has been reviewed and approved by the ENGINEER.
- I. Approval of the Shop Drawings shall constitute approval of the subject matter thereof only, and not of any structure, material, equipment or apparatus shown or indicated. The approval of the Shop Drawings will be general and shall not relieve the CONTRACTOR of responsibility for the accuracy of such Drawings, nor for the proper fitting and construction of the work, nor for the furnishing of materials or work required by the contract and not indicated on the Drawings. Approval shall not relieve the CONTRACTOR from responsibility for errors or omissions of any sort on the Shop Drawings.

## 7.8      Personnel:

- A. Supervision and Superintendence:
  - 1. The CONTRACTOR shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents. The CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but the CONTRACTOR shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. The CONTRACTOR shall be

responsible to see that the finished work complies accurately with the Contract Documents.

2. The CONTRACTOR shall keep on the work at all times during its progress a competent resident Superintendent fluent in both oral and written communication in the English language, who shall not be replaced without written notice to the ENGINEER except under extraordinary circumstances. The Superintendent will be the CONTRACTOR's representative at the site and shall have authority to act on behalf of the CONTRACTOR. All communications given to the Superintendent shall be as binding as if given to the CONTRACTOR.

B. Workforce:

1. None but skilled workers shall be employed on work requiring special qualifications. When required in writing by the ENGINEER, the CONTRACTOR or any Subcontractor shall discharge any person who is, in the opinion of the ENGINEER, incompetent, disorderly or otherwise unsatisfactory, and shall not again employ such discharged person on the work except with the consent of the ENGINEER. Such discharge shall not be the basis of any claim for damages against the CITY or any CITY agents.
2. With respect to all skilled, semi-skilled and unskilled workers employed on the Project under this Contract, preference in employment shall be given to persons residing in Hollywood when such persons are available and qualified to perform the work to which the employment relates. No person shall be employed in violation of the State or National Labor Laws. No person under the age of 16 years shall be employed on a Project under the Contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed on the Project under this Contract; provided that this shall not operate against the employment of physically handicapped persons, otherwise employable where such persons may be safely assigned to work which they can ably perform. No person currently serving sentences in a penal or correctional institution and no inmate of an institution for mentally defective shall be employed on a Project under this Contract without specific approval of the ENGINEER.
3. No discrimination shall be made in the employment of persons on the work by the CONTRACTOR or by any Subcontractor under him, because of the race, color, sex, age or religion of such persons, and there shall be full compliance with the provisions of applicable State and Federal laws in this regard.

7.9 Safety and Protection:

A. Federal Safety and Health Regulations:

The CONTRACTOR and Subcontractors shall comply with the provisions of the Occupational Safety and Health Standards, promulgated by the Secretary of Labor under the "Occupational Safety and Health Act of 1970".

B. Responsibilities:

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:

1. All employees on the work and other persons who may be affected thereby.
2. All the work and all materials or equipment to be incorporated therein, whether in storage on or off the site.
3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocating or replacement in the course of construction.

C. Designated Safety Officer:

The CONTRACTOR shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the CONTRACTOR's Superintendent unless otherwise designated in writing by the CONTRACTOR to the ENGINEER.

D. Protection of the Work:

Until acceptance of the work by the CITY, it shall be under the charge and in care of the CONTRACTOR and he shall take every necessary precaution against injury or damage to the work by action of the elements or from the execution or from the non-execution of the work. The CONTRACTOR shall rebuild, restore and make good, at his own expense, all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance.

7.10 Traffic Control, Public Safety and Convenience:

- A. The CONTRACTOR shall at all times conduct his work so as to assure the least possible obstruction to traffic and inconvenience to the general public, and provide adequate protection of persons and property in the vicinity of the work.
- B. WHEN THE NORMAL FLOW OF TRAFFIC WILL BE IMPAIRED OR DISRUPTED IN ANY MANNER ON ANY STREET, THE CONTRACTOR SHALL NOTIFY THE POLICE TRAFFIC SERGEANT AT (954) 921-3610 AT LEAST 48 HOURS IN ADVANCE.
- C. Streets shall not be closed, except when and where directed by the ENGINEER, and whenever a street is not closed the work must be conducted with the provision for safe passageway for traffic at all times. The CONTRACTOR shall make all necessary arrangements concerning maintenance of traffic and selection of detours required.
- D. When permission has been granted to close an existing roadway, or portion thereof, the CONTRACTOR shall furnish and erect signs, barricades, lights, flags and other protective devices as necessary subject to the approval of the ENGINEER. From sunset to sunrise, the CONTRACTOR shall furnish and maintain as many yellow lights as the ENGINEER may direct.
- E. During working hours the CONTRACTOR shall furnish watchmen in sufficient numbers to protect and divert the vehicular and pedestrian traffic from working areas closed to traffic, or to protect any new work. Failure to comply with this requirement will result in the

ENGINEER shutting down the work until the CONTRACTOR shall have provided the necessary protection.

- F. No separate payment will be made for such signs, barricades, lights, flags, watchmen or other protective devices as required, with all costs thereof deemed to be included in the prices bid for the various items scheduled in the bid.
- G. Sidewalks, gutters, drains, fire hydrants and private drives shall, insofar as practicable, be kept in condition for their intended uses. While the work is actually going on at any location, as much as half the street width at that location may be barricaded to exclude traffic entirely, but street traffic shall not be obstructed needlessly. Fire hydrants on or adjacent to the work shall be kept accessible to fire apparatus at all times, and no material or obstruction shall be placed within ten feet of any such hydrant.
- H. Construction material stored upon the public street shall be placed so as to cause as little obstruction to the general public as is reasonably possible.

#### 7.11 Use of Explosives:

When the use of explosives is necessary for the prosecution of the work, the CONTRACTOR shall observe the utmost care so as not to endanger life or property, and whenever directed, the number and size of charges shall be limited. All explosives shall be stored in a secure manner and all such storage places shall be marked clearly "DANGEROUS EXPLOSIVES" and shall be in care of a competent watchman at all times. The CONTRACTOR must familiarize himself with all laws and ordinances pertaining thereto, and govern himself and his employees accordingly.

#### 7.12 Loading of Structures:

The CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the CONTRACTOR subject any part of the work or adjacent property to stresses or pressures that will endanger it.

#### 7.13 Concerning Subcontractors:

- A. The CONTRACTOR, with his own forces, shall perform no less than 25% of the work as determined by the Contract price. Each Subcontractor shall be properly licensed for the type of work he is to perform.
- B. A copy of each Sub-Contract shall be filed promptly with the ENGINEER upon request. Each Sub-Contract shall contain a reference to the Contract between the CITY and the CONTRACTOR, and the terms and conditions of the Contract shall be made a part of each Sub-Contract. Each Sub-Contract shall provide for annulment of same by the CONTRACTOR upon written order of the ENGINEER if the Subcontractor fails to comply with the requirements of this Contract.
- C. The CONTRACTOR shall be responsible to the CITY and ENGINEER for the acts and omissions of his Sub- Contractors and their employees to the same extent as he is responsible for the acts and omissions of his own employees. Nothing contained in this Contract shall create any contractual relationship between any Subcontractor and the

CITY or ENGINEER nor relieve the CONTRACTOR of any liability or obligation under this Contract.

**7.14 Materials and Equipment:**

**A. Material for the Work:**

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 the work.
2. Unless otherwise specified, shown or permitted by the ENGINEER, all material and equipment incorporated in the work shall be new and of current manufacture. The ENGINEER may request the CONTRACTOR to furnish manufacturer's certificates to this effect.
3. The ENGINEER may require any or all materials to be subjected to test by means of samples or otherwise, at production points or after delivery. The CONTRACTOR shall afford such facilities as the ENGINEER may require for collecting and forwarding samples, which samples shall be furnished by the CONTRACTOR without charge. The CONTRACTOR shall furnish evidence satisfactory to the ENGINEER that the materials and finished articles have passed the required test prior to the incorporation of such materials and finished articles in the work. Unless otherwise provided, the cost of such inspection and testing shall be as provided in Article 12.2.
4. All packaged manufactured products for use on the work shall be delivered to the work in their original, unopened packages, bearing thereon the manufacturer's name and the brand name of the product.
5. Wherever any product or material is selected to be used on the work, all such products or material shall be of the same brand and manufacture throughout the work.
6. All equipment, tools and machinery used for handling material or executing any part of the work shall be maintained in a satisfactory working condition. All equipment utilized on any portion of the work shall be such that no injury to personnel, the work, adjacent property or other objects will result from its use.
7. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.

**B. Storage of Materials:**

1. All materials and equipment including that ordered by the CITY designed for permanent installation in the work shall be properly stored by the CONTRACTOR to insure protection against deterioration of any type. These materials shall be placed

as to cause a minimum of inconvenience to other contractors on the work and to the public. The storage piles shall be arranged to facilitate inspections, and any deterioration shall be grounds for rejection.

2. Materials stored in public Rights-of-Way, shall be stored in such a manner so as to be compatible with the Traffic Control requirements set forth in Paragraph 7.10. Materials shall be stored so as not to deny access to public or private property. Stored materials shall be adequately marked with barricades and/or flashing warning lights, where necessary, so as to protect the materials from damage and to protect the public health, safety and welfare.
3. Lawns, grass plots or other private property shall not be used for storage purposes without written permission of the Owner or Lessee of that private property. Should the CONTRACTOR desire to store equipment or materials of any kind on the property of the CITY, he must obtain permission from the ENGINEER. The CITY reserves the right to order materials to be removed or relocated in such approved storage areas, if necessary.
4. The protection of stored materials shall be the CONTRACTOR's responsibility and the CITY OF HOLLYWOOD shall not be liable for any loss of materials, by theft or otherwise, nor for any damage to the stored materials.

C. Salvage of Materials and Equipment:

The CITY reserves the right to retain title to all soil, sand, stone, gravel, equipment, machinery or any other material that was a part of the structure, site or Right- of-Way and which was developed from excavations or other operations connected with the work. The CONTRACTOR will be permitted to use in the work, without charge, any such material which meets the requirements of the Contract Documents. For that material which the CITY desires to retain the CONTRACTOR shall, at his expense, transfer to a site within the CITY as designated by the ENGINEER. That material which the CITY does not wish to retain shall be the property of the CONTRACTOR and removed from the site at CONTRACTOR's expense.

7.15      Temporary Utilities:

The CONTRACTOR shall provide and maintain at his own expense, all water, power, telephone and sanitary facilities as required to comply with State and/or local Codes and Regulations. If water, including that for testing is required, it is the CONTRACTOR's responsibility to arrange through the CITY Water Department for a water meter. A deposit to be paid by the CONTRACTOR is required for meter rental and all water shall be purchased at the prevailing rate.

7.16      Review of Records:

The CONTRACTOR shall allow and permit the ENGINEER or his duly authorized representative to inspect and review all payrolls, records of personnel, conditions of employment, invoice of materials, books of accounts and other relevant data and records pertinent to the CONTRACT and Sub-Contracts.

7.17      Use of Premises:



CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits or required by the Contract Documents, and shall not interfere with the premises or operation of the City Utilities facilities with construction equipment or other materials or equipment. Construction which interferes with Plant Operations shall be fully coordinated and approved by the ENGINEER.

7.18            CONTRACTOR's Daily Reports:

Except where otherwise provided, the CONTRACTOR shall complete a daily report indicating manpower, major equipment, Subcontractors, etc., involved in the performance of the work. The daily report shall be completed on forms approved by the ENGINEER, and shall be submitted to the ENGINEER at the conclusion of each work day.

7.19            Record Documents:

The CONTRACTOR shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, Shop Drawings and samples at the site, in good order and annotated to show all changes made during the construction process. These shall be available to ENGINEER for examination and shall be delivered to ENGINEER upon completion of the work.

7.20            Cleanliness of the Site:

During the progress of the work, The CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other 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.

7.21            Dust Control:

It shall be the CONTRACTOR's responsibility to control dust by watering as directed by the ENGINEER. The water used shall be paid for by the CONTRACTOR. Should the CONTRACTOR fail to control dust to the satisfaction of the ENGINEER, the CITY will control the dust by whatever means the CITY desires and the CONTRACTOR shall pay all expenses incurred by the CITY associated with the control of the dust.

7.22            Continuing the Work:

The CONTRACTOR shall carry on the work and maintain the Progress Schedule during all disputes or disagreements with the CITY. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the CONTRACTOR and the CITY may otherwise agree in writing.

7.23            Indemnification:

In consideration of the amount listed in the Schedule of Prices Bid and other valuable consideration, the Contractor shall defend, indemnify and save harmless the CITY, its officers, agents, and employees from or on account of any personal injury, loss of life or damage to property received or sustained by any person or persons during or on account of any operations connected with the construction of this Project; or by or in consequence of any negligence (excluding negligence of the CITY), in connection with the same; or by use of any improper materials or by or on account of any use of any improper materials or by or on account of any act or omission of the said Contractor or his subcontractor, agents, servants or employees.

Contractor agrees to indemnify and save harmless the CITY against any liability arising from or based upon the violation of any federal, state, county or city laws, by-laws, ordinances or regulations by the Contractor, his subcontractor, agents, servants or employees. Contractor further agrees to indemnify and save harmless the CITY from all such claims and fees, and from any and all suits and actions of every name and description that may be brought against the CITY on account of any claims, fees, royalties, or costs for any invention or patent, and from any and all suits and actions that may be brought against the CITY for the infringement of any and all patents or patent rights claimed by any person, firm, or corporation.

The indemnification provided above shall obligate the Contractor to defend at his own expense or to provide for such defense, at the CITY's option, any and all claims or liability and all suits and actions of every name and description that may be brought against the Owner which may result from the operations and activities under this Contract whether the construction operations be performed by the Contractor, his subcontractor or by anyone directly or indirectly employed by either.

Nothing in this indemnification shall be deemed to affect the rights, privileges or immunities of the CITY as set forth in Section 768.28, Florida Statutes.

The CITY will pay to the Contractor the specific consideration, in the amount stated in the Schedule of Prices Bid. The Contractor shall acknowledge the receipt of payment and other good and valuable consideration from the Owner which has been paid to him as specific consideration for the indemnification provided herein and in accordance with the provisions of Chapter F.S.A., Section 725.06.

## ARTICLE 8 - CITY'S RESPONSIBILITIES

### 8.1 Communications:

The CITY shall issue all communications to the CONTRACTOR through the ENGINEER.

### 8.2 Furnish Contract Documents:

The CITY shall furnish the number of Contract Documents as specified in the Supplementary General Conditions to the CONTRACTOR at no cost. Referenced Standard Specifications Manuals, guidebooks, etc., will not be provided.

### 8.3 Furnish Right-of-Way:

The CITY shall furnish the necessary land or Right-of-Way on which the work is to be accomplished, and will provide lines and grades as specified in Article 6.

### 8.4 Timely Delivery of Materials:

The CITY shall be responsible for the delivery of any CITY furnished material, equipment or labor as specified in the Contract Documents.

## ARTICLE 9 - ENGINEER'S STATUS

### 9.1 Authority of the Engineer:

- A. The general supervision of the execution of this Contract is vested in the ENGINEER who is the CITY's sole representative during the construction period. The instructions of the ENGINEER are to be strictly and promptly followed in every case. The CONTRACTOR's representative (Article 7.8 A. 1.) shall be responsible for the execution of any instructions given by the ENGINEER during the absence of the CONTRACTOR.
- B. The ENGINEER is the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work. Claims, disputes and other matters relating to the acceptability of work or requirements of the Contract Documents shall be referred in writing to the ENGINEER within 15 days of the event, with a request for a formal decision, which the ENGINEER will render in writing within a reasonable time. This rendering of a decision by the ENGINEER will be a condition precedent to any exercise by the CITY or CONTRACTOR of rights or remedies as either may otherwise have under the Contract Documents or at law in respect to any such claim, dispute or other matter.
- C. The ENGINEER will issue with reasonable promptness any written clarifications or interpretations of the Contract Documents as he shall deem necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If, as a result of a clarification or interpretation, either the CONTRACTOR or ENGINEER believes a Change Order is justified, it shall be submitted.
- D. The ENGINEER has approval authority over the acceptability of all material or equipment furnished, Shop Drawings, Change Orders, work performed and the rate of progress of the work. Verification of the quantities of work performed for pay purposes is the responsibility of the ENGINEER.
- E. The ENGINEER also has the authority to disapprove or reject work which is defective, and may require special inspection or testing of the work, whether or not it is fabricated, installed or completed.
- F. The ENGINEER has the authority to suspend the work wholly or in part for such period or periods as may be deemed necessary, due to the unsuitable prosecution of the work, or for such time as is necessary due to failure on the part of the CONTRACTOR to carry out orders given or perform any or all provisions of the Contract. The CONTRACTOR shall not suspend the work and shall not remove any equipment, tools, lumber or other materials without the written permission of the ENGINEER.

### 9.2 Access to the Work:

The ENGINEER is to have free access to the materials and work at all times for laying out, measuring or inspecting same, and the CONTRACTOR is to afford him all necessary facilities and assistance for so doing.

### 9.3 Limitations on The ENGINEER's Responsibilities:

- A. Neither the ENGINEER's authority to act under this Article or elsewhere in the Contract Documents nor any decision made by the ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the ENGINEER

to the CONTRACTOR, any Subcontractor, any manufacturer, fabricator, supplier or distributor or any of their agents or employees or any other person performing any of the work.

- B. Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used, to describe requirement, direction, review or judgment of the ENGINEER as to the work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective never indicates that the ENGINEER has authority to supervise or direct performance of the work.
- C. The ENGINEER will not be responsible for the CONTRACTOR's means, methods, techniques, sequences or procedures of construction, nor the safety precautions and programs incident thereto, and the ENGINEER will not be responsible for the CONTRACTOR's failure to perform the work in accordance with the Contract Documents.
- D. The ENGINEER will not be responsible for the acts or omissions of the CONTRACTOR or of any Subcontractors, or of the agents or employees of any CONTRACTOR or subcontractor, or of any other persons at the site or otherwise performing any of the work.

#### 9.4      Inspectors:

- A. Inspectors employed by the CITY assist the ENGINEER in ascertaining the work conforms to the Contract Documents and are authorized to inspect all work done and material furnished as representatives of the ENGINEER. Inspectors shall be stationed at the site of the work to report to the ENGINEER as to the progress of the work and the quality of workmanship and material.
- B. In case of any dispute arising between the CONTRACTOR and the Inspector, the Inspector shall have the authority to reject material or to suspend the work until the question of issue can be referred to and decided upon by the ENGINEER.
- C. If the CONTRACTOR refuses to suspend operation on verbal order, the Inspector shall issue a written order giving the reason for shutting down the work. After placing the order in the hands of the man in charge, the Inspector shall immediately leave the job. work done during the absence of the Inspector, after such written notice, will not be accepted nor paid for.
- D. Inspectors are not authorized to revoke, alter, enlarge, relax or release any requirements of these Contract Documents, nor to issue instructions contrary to them. Inspectors shall in no case act as foreman or perform other duties for the CONTRACTOR, nor interfere with management of the work by the latter. Any instructions which Inspectors may give the CONTRACTOR shall in no way be construed as releasing the CONTRACTOR from fulfillment of the terms of the Contract.
- E. The payment of any compensation, whatever may be its character or form, or the giving of any gratuity, or the granting of any valuable favor, by the CONTRACTOR to any Inspector, directly or indirectly, is strictly prohibited and any such act on the part of the CONTRACTOR will constitute a violation of this Contract and may subject the CONTRACTOR to other penalties provided for by law or ordinance.

9.5Inspections:

- A. The ENGINEER will make, or have made, such inspections and tests as he deems necessary to assure that the work is being accomplished in accordance with the requirements of the Contract. In the event such Inspections or tests reveal non-compliance with the requirements of the Contract, the CONTRACTOR shall bear the cost of such corrective measures as well as the cost of subsequent reinspection and retesting.
- B. Work done in the absence of a prescribed inspection may be required to be removed and replaced under proper inspection. The entire cost of removal and replacement, including the cost of all material which may be furnished by the CITY and used in the work thus removed, shall be borne by the CONTRACTOR, regardless of whether the work removed is found to be defective or not. Work covered up without the authority of the ENGINEER, shall, upon order of the ENGINEER, be uncovered to the extent required, and the CONTRACTOR shall similarly bear the entire cost of performing all the work and furnishing all the material necessary for the removal of the covering and its subsequent replacement.
- C. Unless otherwise provided, the cost of inspection and all inspection fees imposed by public agencies other than the fees associated with the issuance of the Master Building Permit by the City of Hollywood shall be paid by the CONTRACTOR.
- D. No inspection nor any failure to inspect at any time or place shall relieve the CONTRACTOR from any obligation to perform all of the work in strict conformance with the requirements of the Contract Documents.

## ARTICLE 10 - CHANGES IN THE WORK/CONTRACT PRICE

### 10.1 Changes in the Work or Terms of Contract Documents:

- A. Without invalidating the Contract and without notice to any surety CITY reserves and shall have the right, from time to time to make such increases, decreases or other changes in the character or quantity of the Work as may be considered necessary or desirable to complete fully and acceptably the proposed construction in a satisfactory manner. Any extra or additional work within the scope of this Project must be accomplished by means of appropriate Clarifications, or Change Orders.
- B. Any changes to the terms of the Contract Documents must be contained in a written document, executed by the parties hereto, with the same formality and of equal dignity prior to the initiation of any work reflecting such change.

This section shall not prohibit the issuance of Change Orders executed only by CITY as hereinafter provided.

### 10.2 Supplemental Instructions - Clarifications:

- A. The CITY, through the ENGINEER, shall have the right to approve and issue Clarifications setting forth written interpretations of the intent of the Contract Documents and ordering minor changes in Work execution, providing the Clarifications involve no change in the Contract Price or the Contract Time.
- B. The ENGINEER shall have the right to approve and issue Clarifications setting forth written orders, instructions, or interpretations concerning the Contract Documents or its performance, provided such Clarifications involve no change in the Contract Price or the Contract Time.

### 10.3 Change Orders:

- A. Changes in the quantity or character of the Work within the scope of the Project which are not properly the subject of Clarifications, including all changes resulting in changes in the Contract Price or the Contract Time, shall be authorized only by or Change Orders approved in advance and issued in accordance with the provisions of the CITY Procurement Code, as amended from time to time.
- B. CONTRACTOR shall not start work on any changes requiring an increase in the Contract Price or the Contract Time until a or Change Order setting forth the adjustments is approved by the CITY. Upon receipt of a Change Order CONTRACTOR shall promptly proceed with the work set forth within the document.
- C. Change Orders shall be issued for change in Contract Price related to Cost Allowances specifically included on the Proposal Bid Form. Change Orders shall be issued when required for all other Contract Price Changes. Hereinafter, the term "Change Order(s)" shall be used to include "Change Orders" with the exception that Change Order shall not be used for any Contract Time adjustments.



- D. In the event satisfactory adjustment cannot be reached for any item requiring a change in the Contract Price or Contract Time, and a Change Order has not been issued, CITY reserves the right at its sole option to either terminate the Contract as it applies to the items in question and make such arrangements as may be deemed necessary to complete the disputed work; or the work shall be performed on the "cost of work" basis as described in Article 10.4.
- E. On approval of any Contract change increasing the Contract Price, CONTRACTOR shall ensure that the performance bond and payment bond are increased so that each reflects the total Contract Price as increased.
- F. Under circumstances determined necessary by CITY, Change Orders may be issued unilaterally by CITY.

10.4      Value of Change Order Work:

- A. The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
  - A.1 Where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of items involved, subject to the provisions of Article 10.4.G.
  - A.2 By mutual acceptance of a lump sum which CONTRACTOR and CITY acknowledge contains a component for overhead and profit.
  - A.3 On the basis of the "cost of work," determined as provided in this Article, plus a CONTRACTOR's fee for overhead and profit which is determined as provided in Article 10.4.D.
- B. The term "cost of work" means the sum of all direct costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work described in the Change Order. Except as otherwise may be agreed to in writing by CITY, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in Article 10.4.C.
  - B.1 Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the work described in the Change Order under schedules of job classifications agreed upon by CITY and CONTRACTOR. Payroll costs for employees not employed full time on the work covered by the Change Order shall be apportioned on the basis of their time spent on the work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay application thereto. Such employees shall include superintendents and foremen at the site. The expenses

of performing the work after regular working hours, on Sunday or legal holidays shall be included in the above to the extent authorized by CITY.

- B.2 Cost of all materials and equipment furnished and incorporated in the work, including costs of transportation and storage thereof, and manufacturers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless CITY deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to CITY. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment shall accrue to CITY and CONTRACTOR shall make provisions so that they may be obtained. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by CITY with the advice of ENGINEER and the costs of transportation, loading, unloading, installation, dismantling and removal thereof, all in accordance with the terms of said agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the work.
- B.3 Payments made by CONTRACTOR to Subcontractors for work performed by Subcontractors, If required by CITY, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to CITY who will then determine, with the advice of ENGINEER, which bids will be accepted. If the Subcontract provides that the Subcontractor is to be paid on the basis of cost of the work plus a fee, the Subcontractor's cost of the work shall be determined in the same manner as CONTRACTOR'S cost of the work. All Subcontractors shall be subject to the other provisions of the Contract Documents insofar as applicable.
- B.4 Cost of special engineers, including, but not limited to, engineers, architects, testing laboratories, and surveyors employed for services specifically related to the performance of the work described in the Change Order.
- B.5 Supplemental costs including the following:  
The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the work except for local travel to and from the site of the work.

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 workmen, which are consumed in the performance of the work, and cost less market value of such items used but not consumed which remains the property of CONTRACTOR.

Sales, use, or similar taxes related to the work, and for which CONTRACTOR is liable, imposed by any governmental authority. Deposits lost for causes other than CONTRACTOR's negligence; royalty payments and fees for permits and licenses. The cost of utilities, fuel and sanitary facilities at the site. Receipted 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.

Cost of premiums for additional bonds and insurance required because of changes in the work.

C. The term "cost of the work" shall not include any of the following:

- C.1 Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in its principal or a branch office for general administration of the work and not specifically included in the agreed-upon schedule of job classifications referred to in this Article, all of which are to be considered administrative costs covered by CONTRACTOR's fee.
- C.2 Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.
- C.3 Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the work and charges against CONTRACTOR for delinquent payments.
- C.4 Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same, except for additional bonds and insurance required because of changes in the work.
- C.5 Costs due to the negligence or neglect of CONTRACTOR, any Subcontractors, 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.
- C.6 Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in this Section.

D. CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

- D.1 A mutually acceptable fixed fee or if none can be agreed upon,
- D.2 A fee based on the following percentages of the various portions of the cost of the work:

For costs incurred under Article 10.4.B.1, CONTRACTOR's fee shall not exceed ten percent (10%).

For costs incurred under Article 10.4.B.3 and B.4, CONTRACTOR's fee shall not exceed seven and one half percent (7.5%); and if a subcontract is on the basis of

cost of the work plus a fee, the maximum allowable to the Subcontractor as a fee for overhead and profit shall not exceed ten percent (10%);

No fee shall be payable on the basis of costs itemized under Article 10.4.B.5 and Article 10.4.C.

- E. The amount of credit to be allowed by CONTRACTOR to CITY for any such change which results in a net decrease in cost, will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined overhead and profit shall be figured on the basis of the net increase, if any, however, CONTRACTOR shall not be entitled to claim lost profits for any Work not performed.
- F. Whenever the cost of any work is to be determined pursuant to Articles 10.4.B and 10.4.C, CONTRACTOR will submit in a form acceptable to CONSULTANT an itemized cost breakdown together with the supporting data.
- G. Where the quantity of any item of the Work that is covered by a unit price is increased or decreased by more than twenty percent (20%) from the quantity of such work indicated in the Contract Documents, an appropriate Change Order shall be issued to adjust the unit price, if warranted.
- H. Whenever a change in the Work is to be based on mutual acceptance of a lump sum, whether the amount is an addition, credit or no change-in-cost, CONTRACTOR shall submit an initial cost estimate acceptable to ENGINEER and CITY.
  - H.1 Breakdown shall list the quantities and unit prices for materials, labor, equipment and other items of cost.
  - H.2 Whenever a change involves CONTRACTOR and one or more Subcontractors and the change is an increase in the Contract Price, overhead and profit percentage for CONTRACTOR and each Subcontractor shall be itemized separately.
- I. Each Change Order must state within the body of the Change Order whether it is based upon unit price, negotiated lump sum, or "cost of the work."

10.5 Notification and Claim for Change of Contract Price:

- A. Any claim for a change in the Contract Price shall be made by written notice by CONTRACTOR to the CITY and to ENGINEER within five (5) calendar days of the commencement of the event giving rise to the claim and stating the general nature and cause of the claim. Thereafter, within twenty (20) calendar days of the termination of the event giving rise to the claim, written notice of the extent of the claim with supporting information and documentation shall be provided unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim and such notice shall be accompanied by CONTRACTOR's

written notarized statement that the adjustment claimed is the entire adjustment to which the CONTRACTOR has reason to believe it is entitled as a result of the occurrence of said event. All claims for changes in the Contract Price shall be in accordance with Articles 10.3 and 10.4 hereof, if CITY and CONTRACTOR cannot otherwise agree. **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.**

10.6 Notice of Change:

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 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. Failure of the CONTRACTOR to obtain such approval from the Surety may be a basis for termination of this Contract by the CITY.

10.7 Records:

The CONTRACTOR's representative and the ENGINEER shall compare records of extra work done at the end of the day. Such records shall be made in duplicate upon a form provided for such purpose by the ENGINEER and shall be signed by both the Inspector and the CONTRACTOR's representative, one copy being submitted to the ENGINEER and the other being retained by the CONTRACTOR.

10.8 Cancelled Items and Payments Therefore:

The CITY COMMISSION shall have the right to cancel those portions of the Contract relating to the construction of any item provided therein. Such cancellation shall entitle the CONTRACTOR to payment in a fair and equitable amount covering all items of cost incurred by him prior to the date of cancellation or suspension of the work. The CONTRACTOR shall be allowed a profit percentage on the materials used and on construction work actually performed, at the same rates as provided for "Extra Work", but no allowance will be made for anticipated profits. Acceptable materials ordered by the CONTRACTOR or delivered on the work, prior to date of such cancellation or suspension, may be purchased from the CONTRACTOR by the CITY at actual cost and shall thereupon, become property of the CITY, or may be returned to the manufacturer for a reasonable restocking charge.

10.9 Full Payment:

The Compensation herein provided shall be received and accepted by the CONTRACTOR as payment in full for all extra work done or costs incurred in event of cancellation.

## ARTICLE 11 - CHANGES IN THE CONTRACT TIME

### 11.1 Change Order:

The Contract Time may only be changed by a Change Order. A FULLY EXECUTED CHANGE ORDER MUST EXIST PRIOR TO EXTENSION OR SHORTENING OF THE CONTRACT TIME.

### 11.2 Notification and Claim for Change of Contract Time:

- A. Any claim for a change in the Contract Time shall be made by written notice by the CONTRACTOR to the CITY and to ENGINEER within five (5) calendar days of the commencement of the event giving rise to the claim and stating the general nature and cause of the claim. Thereafter within twenty (20) calendar days of the termination of the event giving rise to the claim, written notice of the extent of the claim with supporting information and documentation shall be provided unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim and such notice shall be accompanied by CONTRACTOR's written notarized statement that the adjustment claimed is the entire adjustment to which the CONTRACTOR has reason to believe it is entitled as a result of the occurrence of said event. All claims for changes in the Contract Time shall be determined in accordance with Articles 10.3 and 10.4 hereof, if CITY and CONTRACTOR cannot otherwise agree. **IT IS EXPRESSLY AND SPECIFICALLY AGREED THAT ANY AND ALL CLAIMS FOR CHANGES TO THE CONTRACT TIME SHALL BE WAIVED IF NOT SUBMITTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.**
- B. The Contract Time will be extended an amount equal to time lost on critical Work items due to delays beyond the control of and through no fault or negligence of CONTRACTOR if a claim is made thereafter as provided in Article 11.2. Such delays shall include, but not be limited to, acts or neglect by any separate contractor employed by CITY, fire, floods, labor disputes, epidemics, abnormal weather conditions or acts of God

### 11.3 Basis for Extension:

Extensions of time shall be considered and will be based solely upon the effect of delays to the work as a whole. Extensions of time shall not be granted for delays to the work, unless the CONTRACTOR can clearly demonstrate, through schedule analysis, that the delay to the work as a whole arose in accordance with Article 12.3 or Article 15.1, and that such delays did or will, in fact, delay the progress of work as a whole. Time extensions shall not be allowed for delays to parts of the work that are not on the critical path of the project schedule. Time extensions shall not be granted until all float or contingency time, at the time of the delay, available to absorb specific delays and associated impacts is used.

### 11.4 Change of Time Due to Contract Execution Problems:

Refer to Article 3.4 for a decrease in Contract Time when the CONTRACTOR fails to return the correctly executed Contract Documents within the time allowed.

### 11.5 Change of Time Due to Change Order Evaluation:

When evaluating a proposed Change Order, the ENGINEER shall have access to any available float or contingency time. Extension will only be considered in accordance with Article 11.3.

11.6            Change of Time and Inspection and Testing:

Neither observations by the ENGINEER, nor inspections, tests or approvals by others, passing or failing, will be cause for consideration of time extension.

11.7            Change of Time and Defective Work:

- A.    If WORK is found to be defective, CONTRACTOR shall bear all remedial expenses including any additional costs experienced by CITY due to delays to others performing additional WORK. CONTRACTOR shall further bear the responsibility for maintaining schedule, and will be excluded from a time extension and the recovery of delay damages due to the uncovering.
- B.    If the WORK is found to be defective per the Specifications, but the CITY chooses to accept it at its sole discretion, CONTRACTOR shall bear the responsibility for maintaining schedule, and will be excluded from a time extension and the recovery of delay damages due to the uncovering.

11.8            Liquidated Damages:

All time limits stated in the Contract Documents are of the essence. The provisions of this Article 11 shall not exclude recovery for damages by CITY as indicated in Section 3 of the Supplementary General Conditions.



ARTICLE 12 - WARRANTY AND GUARANTEE;  
TEST AND INSPECTIONS;  
CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

12.1      Warranty and Guarantee:

The CONTRACTOR warrants and guarantees to the CITY and the ENGINEER 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.

12.2      Tests and Inspections:

- A. The CONTRACTOR shall give the ENGINEER and, when appropriate, the Building Department and other regulatory authorities which have jurisdiction over the work, timely notice of readiness of the work for all required inspections, tests or approvals.
- B. All inspections performed as a result of the issuance of the Master Building Permit shall be performed by the CITY. All costs associated with such inspections shall be paid by the CITY, EXCEPT THAT should said test or inspection fail to pass the CONTRACTOR shall pay all costs associated with the rework and the retesting.
- C. When any other regulatory authority, by virtue of its rules or regulations, requires specific tests or inspections, the CONTRACTOR shall assume full responsibility for and pay all costs in connection with said tests and inspections.
- D. The CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with the ENGINEER's acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment proposed to be incorporated in the work, or of materials or equipment submitted for approval prior to ENGINEER's acceptance thereof for incorporation in the work and as otherwise specified in the Contract Documents.
- E. Neither observations by the ENGINEER nor inspections, tests or approvals by others shall relieve the CONTRACTOR from his obligations to perform the work in accordance with the Contract Documents.

12.3      Uncovering Work:

- A. If any work that is to be inspected, tested or approved is covered without written concurrence of the ENGINEER, it must, if requested, by the ENGINEER, be uncovered. Such uncovering and replacement shall be at the CONTRACTOR's expense.
- B. CONTRACTOR must contact all regulatory agencies issuing construction permits to make all necessary inspections. If CONTRACTOR fails to have the necessary inspections performed and such failure results in uncovering of work already performed, CONTRACTOR shall be responsible for all related time delays and monetary costs.
- C. If the ENGINEER considers it necessary or advisable that work previously covered with his permission or cognizance be observed, inspected or tested, the CONTRACTOR, at the ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER 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. 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 therefor in accordance with Article 10.2 and Article 11.2.

12.4            City May Stop the Work:

If the work is defective, or the CONTRACTOR fails to supply sufficient skilled workmen or suitable materials or equipment, 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.

12.5            Correction or Removal of Defective Work:

If required by the ENGINEER, the CONTRACTOR shall promptly, without cost to the CITY and as specified by the ENGINEER either correct any defective work, whether or not fabricated, installed or completed, or if the work has been rejected by the ENGINEER, remove it from the site and replace it with nondefective work.

12.6            One- Year Correction Period:

If within one year after the date of Substantial Completion or Final Completion as applicable, or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any work is found to be defective, the CONTRACTOR shall promptly without cost to the CITY and in accordance with the ENGINEER's written instructions, either correct such defective work, or if it has been rejected by the ENGINEER remove it from the site and replace it with nondefective 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 ENGINEER may have the defective work corrected or the rejected work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by the CONTRACTOR.

12.7            Acceptance of Defective Work:

If instead of requiring correction or removal and replacement of defective work, the ENGINEER prefers to accept it, he may do so. In such case, if acceptance occurs prior to the ENGINEER's recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract 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.

12.8City May Correct Defective Work:

If the CONTRACTOR fails within a reasonable time after written notice of the ENGINEER to proceed to correct and to correct defective work or to remove and replace rejected work as required by the ENGINEER in accordance with Paragraph 12.5, or if the CONTRACTOR fails to perform the work in accordance with the Contract Documents, (including any requirements of the progress schedule), the CITY may, after seven 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, and suspend the CONTRACTOR's services related thereto, take possession of the CONTRACTOR's tools, appliances, construction equipment and machinery at the site and 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. The CONTRACTOR shall allow the CITY, the CITY's representatives, agents and employees such access to the site as may be necessary to enable the CITY to exercise his 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 ENGINEER, 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 limitations, compensation for additional professional services required and all 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 rights hereunder.

## ARTICLE 13 - PAYMENTS TO THE CONTRACTOR

### 13.1 Basis of Payment:

Progress payments shall be based on the aggregate of the unit price amounts listed in the Proposal or in the Schedule of Values which have been incorporated in the work acceptable to the ENGINEER.

### 13.2 Unit Price Inclusion:

The unit prices stated in the Proposal include all costs and expenses for materials, labor, tools, equipment, transportation, commissions, patent fees and royalties, removing crossings or other obstructions, protection or maintaining pipes, drains, railroad tracks, buildings, bridges, or other structures furnishing temporary crossings or bridges, furnishing all supplemental construction stakes, batter boards, templets, common and ordinary labor for handling materials during inspection replacing any property damage, together with any and all costs or expenses for performing and completing the work as specified.

### 13.3 Schedule of Values: (Lump Sum Price Breakdown)

A Schedule of Values must be submitted within seven days subsequent to the CONTRACTOR executing and submitting the Documents required of Article 16 of the Instructions to Bidders. The schedules shall be satisfactory in form and substance to the ENGINEER, and shall include quantity and unit prices aggregating the Contract Price, and shall subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon acceptance of the schedule of values by the ENGINEER, it shall be incorporated into a form of Application for Payment acceptable to the ENGINEER.

### 13.4 Changed Conditions: (Unit Price Only)

It is mutually agreed that due to latent field conditions which cannot be foreseen at the time of advertising for bids, adjustments of the Plans to field conditions will be necessary during construction; and, therefore, such changes in the plans shall be recognized as constituting a normal and accepted margin of adjustment not unusual and not involving or permitting any change or modification of unit prices, in which case payment will be made for the revised quantities at the unit price bid in the Proposal.

### 13.5 Application for Progress Payment:

On the 20th day of the month or the first working day thereafter, the CONTRACTOR shall submit to the ENGINEER for review an Application for Payment form filled out and signed by the CONTRACTOR. The form shall be notarized, and shall cover the work completed as of the date of the application. The Application for Payment shall be accompanied by a Schedule of Values, and any other supporting documentation as the ENGINEER may reasonably require.

### 13.6 Payment for Materials:

If payment is requested on the basis of materials and equipment not incorporated in the work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by such data, satisfactory to the ENGINEER, as will establish the CITY's title to the material and equipment and protect the CITY's interest therein, including applicable insurance.

13.7            Affidavit Required:

All Applications for Payment shall include an Affidavit of the CONTRACTOR stating that all previous progress payments received on account of the work have been applied to discharge in full all of CONTRACTOR's obligations reflected in prior Applications for Payment. The amount of retainage with respect to progress payments will be 10%.

13.8            Retainage:

The amount of retainage with respect to progress payments will be 10% until 50-percent completion of the construction services purchased pursuant to the Contract. After 50-percent completion of the construction services purchased pursuant to the Contract, the CITY shall reduce to 5 percent the amount of retainage withheld from each subsequent progress payment made to the CONTRACTOR. For purposes of this paragraph, the term "50-percent completion" means the point at which the CITY has expended 50 percent of the total cost of the construction services purchased as identified in the Contract together with all costs associated with existing change orders and other additions or modifications to the construction services provided for in the Contract.

13.9            CONTRACTOR's Warranty of Title:

The CONTRACTOR warrants and guarantees that title to all work, materials and equipment covered by any Application for Payment whether incorporated in the Project or not, will pass to the CITY at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereinafter in these General Conditions referred to as "Liens").

13.10          Review of Application for Payment:

The ENGINEER will, within seven (7) days, review the Application for Payment and either approve and submit it for payment or notify the CONTRACTOR of the deficiencies such that the CONTRACTOR may make the necessary corrections and resubmit in time for the month's payment. However, the ENGINEER may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such representations. He may also refuse to recommend any such payment, or because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in the ENGINEER's opinion to protect the CITY from loss because:

- A.     The work is defective, or completed work has been damaged requiring correction or replacement.
- B.     Written claims have been made against the CITY or Liens have been filed in connection with the work.
- C.     The Contract Price has been reduced because of Change Order.
- D.     The CITY has been required to correct defective work or complete the work in accordance with Article 12.8.

- E. The CONTRACTOR's unsatisfactory prosecution of the work in accordance with the Contract Documents.
- F. The CONTRACTOR's failure to make payment to Sub- Contractors, or for labor, materials or equipment.

13.11      Payment to the Contractor:

Payments are made only on the fifteenth day or first workday thereafter of each month.

ARTICLE 14 - SUBSTANTIAL COMPLETION, PARTIAL UTILIZATION,  
FINAL CLEAN UP, INSPECTION, PAYMENT AND ACCEPTANCE

14.1      Substantial Completion:

When the CONTRACTOR considers the entire work ready for its intended use, the CONTRACTOR shall, in writing to the ENGINEER, certify that the entire work is substantially complete and request that the ENGINEER issue a Certificate of Substantial Completion. Within a reasonable time thereafter the CONTRACTOR and the ENGINEER shall make an inspection of the work to determine the status of completion. If the ENGINEER does not consider the work substantially complete, the ENGINEER will notify the CONTRACTOR in writing giving his reasons therefor. If the ENGINEER considers the work substantially complete, the ENGINEER will prepare and deliver to the CONTRACTOR a Certificate of Substantial Completion, which shall fix the date of Substantial Completion. There shall be attached to the certificate a proposed Punch List, developed by the CONTRACTOR, of items to be completed or corrected before final payment.

Within 10 days after delivery of the certificate, the CITY shall review the proposed Punch List and either approve it or contact the CONTRACTOR to commence good faith efforts to develop a Punch List that is satisfactory to both parties. If the parties are unable to resolve any differences they may have in the development of the Punch List, the ENGINEER shall resolve their differences. The parties shall expedite the process of developing the Punch List with the intent of finalizing the Punch List within 30 days after the date of Substantial Completion.

At the time of delivery of the Certificate of Substantial Completion the ENGINEER will deliver to the CONTRACTOR written notice as to division of responsibilities pending final payment between the CITY and the CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities and insurance, said responsibilities will be binding on the CITY and the CONTRACTOR until final payment. Unless otherwise stated herein or on the Certificate of Substantial Completion, all building, product, equipment, and machinery warranties will commence on the date of Substantial Completion. The CITY shall have the right to exclude the CONTRACTOR from the work after the date of Substantial Completion, but the CITY shall allow the CONTRACTOR reasonable access to complete or correct items on the Punch List.

14.2      Partial Utilization:

Use by the CITY of any finished part of the work which has specifically been identified in the Contract Documents or which the ENGINEER and the CONTRACTOR agree constitutes a separately functioning and usable part of the work that can be used by the CITY without significant interference with CONTRACTOR's performance of the remainder of the work, may be accomplished prior to Substantial Completion of all the work subject to the following:

- A. The ENGINEER at any time may request the CONTRACTOR in writing to permit the CITY to use any such part of the work which the ENGINEER believes to be ready for its intended use and substantially complete. If the CONTRACTOR agrees, the CONTRACTOR will certify to the ENGINEER that said part of the work is substantially complete and request the ENGINEER to issue a Certificate of Substantial Completion for that part of the work. The CONTRACTOR, at any time, may notify the ENGINEER in writing that the CONTRACTOR considers any such part of the work ready for its intended use and substantially complete and request the ENGINEER to issue a Certificate of Substantial Complete for the part of the work. Within a reasonable time after either such request, the CONTRACTOR and the ENGINEER shall make an inspection of that part of

the work to determine its status of completion. If the ENGINEER does not consider that part of the work to be substantially complete, the ENGINEER will notify the CONTRACTOR in writing giving the reasons therefore. If the ENGINEER considers that part of the work to be substantially complete, the provisions of Article 14.1 will apply with respect to Certificate of Substantial Completion of that part of the work and the division of responsibility in respect thereof and access thereto. It shall be understood by the CONTRACTOR that until such written notification is issued, all responsibility for care and maintenance of all of the WORK shall be borne by the CONTRACTOR. Upon issuance of said written notice of partial utilization, the OWNER will accept responsibility for the protection and maintenance of all such items or portions of the WORK described in the written notice.

#### 14.3      Final Clean-Up:

Upon completion of the work and before final inspection shall be made, the CONTRACTOR shall clean and remove from the site, the Right-of-Way and adjacent property, all surplus and discarded materials, rubbish, and temporary structures; restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work; and shall leave the site and vicinity unobstructed in a neat and presentable condition throughout the entire area or length of the work under Contract. The placing of materials of every character, rubbish, or equipment on the abutting property, with or without the consent of the property owners, shall not constitute the satisfactory disposal. If the work is of such a character as may be done by block or sections, the CONTRACTOR may be required to promptly remove and dispose of accumulated rubbish, debris or surplus materials from blocks or sections as completed or partially completed. No separate payment will be made for final cleaning up and restoration of property, but all costs thereof shall be included in the prices bid for the various scheduled items of work.

#### 14.4      Final Inspection:

Upon written notice from the CONTRACTOR that the entire work or an agreed portion thereof is complete and final clean-up has been completed, the ENGINEER will make a final inspection with the CONTRACTOR and will notify the CONTRACTOR in writing of all particulars in which this inspection reveals that the work is incomplete or defective. The CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

#### 14.5      Final Application for Payment:

After the CONTRACTOR has completed all such corrections to the satisfaction of the ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in Article 7.19 of the General Conditions and other documents; all as required by the Contract Documents and after the ENGINEER has indicated that the work is acceptable (subject to the provisions of Article 14.9) the CONTRACTOR may make Application for Final Payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to the CITY) of all Liens arising out of or filed in connection with the work. In lieu thereof and as approved by the CITY, the CONTRACTOR may furnish receipts or releases in full; an affidavit of the CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and



equipment bills, and other indebtedness connected with the work for which the CITY or the CITY's property might in any way be responsible, have been paid or otherwise satisfied; and consent of the Surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, the CONTRACTOR may furnish a Bond or other collateral satisfactory to the CITY to indemnify the CITY against any Lien.

14.6            Final Payment and Acceptance:

If on the basis of the ENGINEER's observation of the work during construction and final inspection, and the ENGINEER's review of the final Application for Payment and accompanying documentation, all as required by the Contract Documents, the ENGINEER is satisfied that the work has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, the ENGINEER will recommend payment. Thereupon the ENGINEER will give written notice to the CITY and the CONTRACTOR that the work is acceptable subject to the provisions of Article 14.9.

14.7            Payment of Retainage Without Final Completion:

If through no fault of the CONTRACTOR, final completion of the work is significantly delayed and if the ENGINEER so confirms, the CITY shall, upon receipt of the CONTRACTOR's final Application for Payment and recommendation of the ENGINEER, and without terminating the Agreement, make payment of the balance due for the portion of the work fully completed and accepted. If the remaining balance to be held by the CITY for work not fully completed or corrected is less than the retainage stipulated in the Agreement and if Bonds have been furnished as required in Article 5.2, the written consent of the Surety to the payment of the balance due for that portion of the work fully completed and accepted shall be submitted by the CONTRACTOR to the ENGINEER with the application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

14.8            CONTRACTOR's Continuing Obligation:

The CONTRACTOR's obligation to perform and complete the work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by the ENGINEER, nor the issuance of a Certificate of Substantial Completion, nor any payment by the CITY to the CONTRACTOR under the Contract Documents, nor any use or occupancy of the work or any part thereof by the CITY nor any act of acceptance by the CITY nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by the ENGINEER pursuant to Article 14.6, nor any correction of defective work by the CITY will constitute an acceptance of work not in accordance with the Contract Documents or a release of the CONTRACTOR's obligation to perform the work in accordance with the Contract Documents (except as provided in Article 14.9).

14.9            Waiver of Claims:

The making and acceptance of final payment will constitute:

- A. A waiver of all claims by the CITY against the CONTRACTOR, except claims arising from unsettled Liens, from defective work appearing after final inspection pursuant to Article 14.4 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by the CITY of any

rights in respect of the CONTRACTOR's continuing obligations under the Contract Documents.

- B. A waiver of all claims by the CONTRACTOR against the CITY other than those previously made in writing and still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION15.1 City May Suspend Work:

The CITY may, at any time and without cause, suspend the work or any portion thereof for a period of not more than 90 days by notice in writing to the CONTRACTOR which will fix the date on which work will be resumed. The CONTRACTOR shall resume the work on the date so fixed. The CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension.

15.2 City May Terminate:

- A. Upon the occurrence of any one or more of the following events:
1. If the CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, 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.
  2. If a petition is filed against the CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against the CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency.
  3. If the CONTRACTOR makes a general assignment for the benefit of creditors.
  4. 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.
  5. If the CONTRACTOR admits in writing an inability to pay its debts generally as they become due.
  6. If the CONTRACTOR persistently fails to perform the work in accordance with the Contract Documents (including, but not limited to, failure to supply a qualified superintendent or sufficient skilled workers or suitable materials or equipment or failure to adhere to the approved progress schedule revised from time to time).
  7. If the CONTRACTOR disregards laws or regulations of any public body having jurisdiction.
  8. If the CONTRACTOR disregards the authority of the ENGINEER.
  9. If the CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents.
- B. The CITY may, after giving the CONTRACTOR and the Surety seven days' written notice and to the extent permitted by laws and regulations, terminate the services of the CONTRACTOR, exclude the CONTRACTOR from the site and take possession of the

work and of all the CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by the CONTRACTOR (without liability to the CONTRACTOR 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 such case the CONTRACTOR shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals, and court and arbitration costs) such excess will be paid to the CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR, or CONTRACTOR's Surety, shall pay the difference to the CITY.

- C. Where the CONTRACTOR's services have been so terminated by the CITY, the CITY alone shall determine the scope and description of the work to be completed and the method and schedule for completing it.
- D. Where the CONTRACTOR's services have been so terminated by the CITY the termination will not affect any rights or remedies 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.
- E. Upon seven days' written notice to the CONTRACTOR the CITY may, without cause and without prejudice to any other right or remedy, elect to abandon the work and terminate the Contract. In such case the CONTRACTOR shall be paid for all work executed and any expense sustained plus reasonable termination expenses, which will include, but not be limited to, direct, indirect and consequential costs (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs).

### 15.3 Contractor May Stop Work or Terminate:

If through no act or fault of the CONTRACTOR, the work is suspended for a period of more than 90 days by the CITY or under an order of court or other public authority, or the CITY fails for 60 days to pay the CONTRACTOR any sum finally determined to be due, then the CONTRACTOR may, upon seven days' written notice to the CITY terminate the Contract and recover from the CITY payment for all work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Contract, if the CITY has failed to make any payment as aforesaid, the CONTRACTOR may upon seven days' written notice to the CITY stop the work until payment of all amounts then due are paid. The provisions of this paragraph shall not relieve the CONTRACTOR of the obligations to carry on the work in accordance with the progress schedule and without delay during disputes and disagreements with the CITY.

- END OF SECTION -

SECTION 00800  
SUPPLEMENTARY GENERAL CONDITIONS  
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**General Note:**

The General Conditions refer to specific section numbers in the Supplementary General Conditions. These reference numbers may not coordinate with the actual Article numbers utilized in the Supplementary General Conditions. The CONTRACTOR shall comply with all General Conditions and all Supplementary General Conditions as well as related conditions included in the General Requirements, Division 1 of the Technical Specifications. Incorrect cross-reference numbers shall not relieve this requirement.

**1. Project Schedule**

Time is of the essence for this work. The following defines the schedule for the project:

**CONSTRUCTION WORK SCHEDULE  
CONSTRUCTION / STARTUP / ACCEPTANCE**

**Major Milestones**

**Completion Time  
(date or calendar days)**

1.	IW-1 MIT	August 20, 2022
2.	IW-1 MIT Substantial Completion	August 27, 2022
3.	IW-2 MIT	August 30, 2022
4.	IW-2 MIT Substantial Completion	September 6, 2022
5.	Project Closeout	October 6, 2022

Failure to meet any of the above defined construction/startup/acceptance completion dates shall subject the CONTRACTOR to pay damages as specified in these Supplementary General Conditions in Article 3.

**Substantial Completion**

1. Refer to General Conditions Articles 14.1 and 14.2. (Certification of Substantial Completion Services appended to the Supplementary General Conditions).
2. Substantial Completion shall also include:
  - Completion of all construction work associated with the specific "Major Milestone" listed in the construction work schedule including submittal of all items outlined in Section 13199 Article 1.07 Deliverables and completion of punch list items.
  - "Completion of punch list items" shall be as determined by the Engineer in the field.
  - Record shop drawings and O&M submittals received and accepted by the Engineer.
  - Record drawings received and accepted by the Engineer
  - The systems shall be tested and demonstrated for the Engineer's acceptance. The Engineer shall determine testing and demonstration sufficient for acceptance.
  - Guarantee certifications, performance affidavits, and all other certifications received and accepted by the Engineer.
  - Contractor shall also conform to construction sequence constraints as defined on the Drawings and in Specifications.

## Project Closeout

1. Refer to Division 1 General Requirement, Section 01700 Project Closeout.
2. Project Closeout shall also include:

- All requirements of substantial completion met plus the following
- Site cleanup and restoration completed
- All other site work completed
- Minor punch list items completed (minor as defined by the Engineer in the field)
- Demobilization completed
- Releases from all parties who are entitled to claims

The title "Engineer" utilized in these descriptions for substantial and final completion shall mean the City staff engineer assigned to this project, or his designated representative.

## 2. **Insurance Requirements**

The insurance required by Article 5.6 of the General Conditions shall be as follows:  
Any Sub-Contractor used by the contractor shall supply such similar insurance required of the contractor. Such certificates shall name the City of Hollywood as an Additional Insured.

### 1. **BUILDERS RISK (BR 1) - Installation Floater: (Not Applicable)**

The Contractor shall be required to purchase and maintain, throughout the life of the contract, and until the project is accepted by the City, Builder's Risk Insurance on an All Risk of Loss form. Coverage shall include:

Theft	Aircraft
Windstorm	Vehicles
Hail	Smoke
Explosion	Fire
Riot	Collapse
Civil Commotion	Flood

The policy limits shall be no less than the amount of the finished project and coverage shall be provided on a completed value basis.

Property located on the construction premises, which is intended to become a permanent part of the building, shall be included as property covered.

The policy shall be endorsed permitting the City to occupy the building prior to completion without effecting the coverage.

The City of Hollywood and Hazen and Sawyer shall be named as Additional Insured and Loss Payee.

### 2. **GENERAL LIABILITY (GL3):**

Prior to the commencement of work governed by this contract, the Contractor shall obtain General Liability Insurance. Coverage shall be maintained throughout the life of the contract and include, as a minimum:

- Premises Operations

- Products and Completed Operations
- Blanket Contractual Liability
- Personal Injury Liability
- Expanded Definition of Property Damage

The minimum limits acceptable shall be:

\$2,000,000 Combined Single Limit (CSL)

An Occurrence Form policy is preferred. If coverage is provided on a Claims Made policy, its provisions should include coverage for claims filed on or after the effective date of this contract. In addition, the period for which claims may be reported should extend for a minimum of twelve (12) months following the acceptance of work by the City.

The City of Hollywood shall be named as Additional Insured on all policies issued to satisfy the above requirements.

### 3. **GENERAL LIABILITY (GLXCU):**

Recognizing that the work governed by this contract involves either underground exposures, explosive activities, or the possibility of collapse of a structure, the Contractor's General Liability Policy shall include coverage for the XCU (explosion, collapse, and underground) exposures with limits of liability equal to those of the General Liability Insurance policy.

### 4. **VEHICLE LIABILITY (VL3):**

Recognizing that the work governed by this contract requires the use of vehicles, the Contractor, prior to the commencement of work, shall obtain Vehicle Liability Insurance. Coverage shall be maintained throughout the life of the contract and include, as a minimum, liability coverage for:

- Owned, Non-Owned, and Hired Vehicles

The minimum limits acceptable shall be:

\$1,000,000 Combined Single Limit (CSL)

If split limits are provided, the minimum limits acceptable shall be:

\$500,000 per Person  
\$1,000,000 per Occurrence  
\$100,000 Property Damage

The City of Hollywood shall be named as Additional Insured on all policies issued to satisfy the above requirements.

### 5. **WORKERS' COMPENSATION (WC2):**

Prior to the commencement of work governed by this contract, the Contractor shall obtain Workers' Compensation Insurance with limits sufficient to respond to the applicable state statutes.

In addition, the Contractor shall obtain Employers' Liability Insurance with limits of not less than:

\$500,000 Bodily Injury by Accident  
\$500,000 Bodily Injury by Disease, policy limits  
\$500,000 Bodily Injury by Disease, each employee

Coverage shall be maintained throughout the entire term of the contract.

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Coverage shall be provided by a company or companies authorized to transact business in the state of Florida and the company or companies must maintain a minimum rating of "A" and Class X, as assigned by the A.M. Best Company.

The policy must be endorsed to provide the City with (30) days notice of cancellation.

If the Contractor has been approved by the Florida's Department of Labor, as an authorized self-insurer, the City shall recognize and honor the Contractor's status. The Contractor may be required to submit a Letter of Authorization issued by the Department of Labor and a Certificate of Insurance, providing details on the Contractor's Excess Insurance Program.

If the Contractor participates in a self-insurance fund, a Certificate of Insurance will be required. In addition, the Contractor may be required to submit updated financial statements from the fund upon request from the City.

### 3. **Liquidated Damages**

Liquidated damages shall be paid by the CONTRACTOR to the CITY for failure to complete work by the dates listed in Article 1 of this Section in accordance with the following schedule:

CONSTRUCTION WORK SCHEDULE		
CONSTRUCTION / STARTUP / ACCEPTANCE		
<u>Major Milestones</u>	<u>Completion Time (calendar days)</u>	<u>Liquidated Damages</u>
1. IW-1 MIT	August 20, 2022	\$1,000/day
2. IW-1 MIT Substantial Completion	August 27, 2022	\$1,000/day
3. IW-2 MIT	August 30, 2022	\$1,000/day
4. IW-2 MIT Substantial Completion	September 6, 2022	\$1,000/day
5. Project Closeout	October 6, 2022	\$1,000/day

The CITY is hereby authorized to deduct the sums described above from the monies which may be due to the CONTRACTOR for the work under this contract. Liquidated damages shall be additive such that the maximum total which may be deducted shall be \$5,000/day. Other damages for failure to meet warranty conditions as defined in other sections of the Specifications shall also be added with liquidated damages for failure to meet completion times.

### 4. **Restricted Area**

The CONTRACTOR shall, in installing the new facilities, confine all activities within the CITY property, easement, and right-of-ways indicated.

### 5. **Existing Facilities and Structures**

All existing facilities shall be protected, and if damaged, shall be repaired by the CONTRACTOR at no additional cost to the CITY.

### 6. **Explosives**

Explosives shall not be used on this project.

**7. Contract Documents**

The CITY will provide the CONTRACTOR with one (1) set of Contract Documents after the Notice to Proceed.

**8. Required Notifications**

When provisions of the pertinent codes, standards or regulations conflict with this Specification, the more stringent shall apply.

Prior to any site work, the CONTRACTOR shall notify the Engineering and Construction Services Division Inspector at (954) 921-3930.

Prior to excavation at the site, the CONTRACTOR shall notify the appropriate utilities and Sunshine State One-Call of Florida, Inc. (formerly U.N.C.L.E.) at 1-800-432-4770 for locations of buried utilities.

Prior to closure of any CITY streets or alleyways, or other activity which requires the diversion of traffic, the CONTRACTOR shall notify and obtain the permission of the CITY of Hollywood Fire and Police Communications Section at (954) 967-4321.

**9. Notice of Completion**

See attached form.

**10. Prevailing Wage Requirement**

A. The CONTRACTOR shall be responsible for ensuring payment of the rate of wages and fringe benefits, or cash equivalent, for all laborers, mechanics and apprentices employed by him/her or his/her SUBCONTRACTORS on the work covered by this contract which shall be not less than the prevailing rate of wages and fringe benefits payment or cash equivalent for similar skills or classifications of work as established by the General Wage Decision by the United States Department of Labor for Broward County, Florida that is in effect prior to the date the CITY issued the invitation for bids for this project (the prevailing rate of wages and fringes can be obtained at website <http://www.access.gpo.gov/davisbacon>).

If the General Wage Decision fails to provide for a fringe benefit rate for any worker classification, then the fringe benefit rate applicable to such worker classification shall be the fringe benefit rate that has a basic wage rate closest in dollar amount to the work classification for which no fringe benefit rate has been provided.

B. Upon commencement of work, the CONTRACTOR and all of his/her SUBCONTRACTORS shall post a notice in a prominent place at the work site stating the requirements of this Article.

C. As per the City of Hollywood Code of Ordinances, Prevailing Wage Requirements and Fringe Benefits are applicable to the following: (A) Utilities projects over \$1,000,000.00 (one million dollars) and (B) All other projects over \$500,000.00 (five hundred thousand dollars).

**11. Inspections and Testing During Overtime**

A. The following supplement Article 3.15 and 3.16 of the General Conditions:

For weekend work, CONTRACTOR shall submit a written request to the CITY by the

preceding Wednesday. A separate request is required for each week that the CONTRACTOR wished to work on a weekend. For evening and holiday work, CONTRACTOR shall submit a written request to the CITY 3 days in advance. The CITY will provide inspection services for all overtime work and the CONTRACTOR shall pay for inspection services per Article 3.15, no exceptions.

Similarly, holiday and other overtime work shall be requested a minimum of 36-hours in advance and CITY will provide inspection for all overtime.

- B. Exceptions to the hours and days of the week for work and other related limitations are allowed only for tie-ins during low flow periods / early morning hours, coatings that need to be applied during lower temperature times of the day and whenever the Documents specifically define that work shall be completed outside of the limitations for "normal" work hours, days, etc.

Inspection for tie-ins during low flow/early morning and specialty coating application performed during nighttime will not be cause for extra inspection costs unless such work is remedial in nature as a result of defective work.

**12. Retainage**

CITY shall promptly make payment to CONTRACTOR, unless CITY has grounds for withholding the payment of retainage. CITY shall have grounds for withholding the payment of retainage with respect to any amounts that are the subject of a good-faith dispute, the subject of a claim brought pursuant to Florida Statute Section 255.05, or otherwise the subject of a claim or demand by CITY or CONTRACTOR.

At acceptance of Substantial Completion, CITY shall promptly make payment to CONTRACTOR of one-half of the retainage then held by CITY. At acceptance of completion of all punch list items, CITY shall promptly make payment to CONTRACTOR the balance of retainage then held by CITY.

**13. Owner's Contingency (Not Used)**

## CERTIFICATE OF SUBSTANTIAL COMPLETION

**PROJECT: INJECTION WELLS 1 & 2 MECHANICAL INTEGRITY TESTING (IFB-4714-22-OT)**

**ENGINEER: HAZEN AND SAWYER**

**TO:**

**CONTRACTOR:**

**CONTRACT FOR:**

**NOTICE TO PROCEED DATE:**

**DATE OF ISSUANCE:**

**PROJECT OR DESIGNATED PORTION SHALL INCLUDE:**

Portions of the work performed under this Contract as described above, have been reviewed and found to be substantially complete. The Date of Substantial Completion of Project or designated portion thereof designated above is hereby established as \_\_\_\_\_ which is also the date of commencement of applicable warranties required by the Contract Documents for the noted area.

### **DEFINITION OF DATE OF SUBSTANTIAL COMPLETION**

The Date of Substantial Completion of the work or designated portion thereof is the date certified by the ENGINEER ("Date of Issuance" above) when construction is sufficiently complete, in accordance with the Contract Documents, so the CITY can occupy or utilize the work or designated portion thereof for the use for which it is intended, as expressed in the Contract Documents.

A list of items to be completed or corrected, prepared by the CONTRACTOR and verified and amended by the ENGINEER, for the above referenced "Project or Designated Portion" is attached to this form (attached "Punch List" dated \_\_\_\_\_).

The failure to include any items on such list does not alter the responsibility of the CONTRACTOR to complete all work in accordance with the Contract Documents.

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## CERTIFICATE OF SUBSTANTIAL COMPLETION

Please note that in accordance with Article 14 General Conditions, the Contractor retains full responsibility for the satisfactory completion of all work regardless of whether the Owner occupies and / or operates a part of the facility and that the taking possession and use of such work shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents.

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<b>ENGINEER</b>	<b>BY</b>	<b>DATE</b>
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<b>CONTRACTOR</b>	<b>BY</b>	<b>DATE</b>
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The CITY OF HOLLYWOOD, through the City's authorized representative, accepts the work or designated portion thereof as substantially complete and will assume full possession thereof at \_\_\_\_\_(time) on \_\_\_\_\_  
(date).

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<b>BY</b>	<b>DATE</b>
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- END OF SECTION -

## **TECHNICAL SPECIFICATIONS**

**DIVISION 1**  
**GENERAL REQUIREMENTS**

## SECTION 01010 - SUMMARY OF WORK

PART 1 – GENERAL

## 1.01 THE REQUIREMENT

- A. The Work to be performed under this Contract shall consist of furnishing and installation of all tools, equipment, materials, supplies, manufactured articles, transportation and services, including fuel, power, water, and essential communications, for the performance of all labor, work, and/or other operations as required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and all work, materials, and services not expressly shown or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be performed, furnished, and installed by the CONTRACTOR as though originally so specified or shown, at no increase in cost to the CITY.
- B. Wherever the Contract Documents address a third party (i.e., subcontractor, manufacturer, etc.) it is to be considered as the CONTRACTOR through the third party.
- C. Wherever a reference to number of days is noted, it shall be construed to mean calendar days.

## 1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of the Contract comprises the performance of testing and work on two existing deep injection wells IW-1 and IW-2. Work entails the mechanical integrity test (MIT) on each of the wells. The performance of the MIT must be completed by the dates identified in Section 13199. The work set forth within these bid documents includes the furnishing of all labor, materials, equipment, services and incidentals for the testing and return to service of the wells. Maintenance of existing operations is mandated throughout the testing period.
- B. The Work is located at the Southern Regional Wastewater Treatment Plant (SRWWTP), 1621 North 14<sup>th</sup> Avenue, Hollywood, Florida 33020.

## 1.03 WORK BY OTHERS

- A. The CONTRACTOR's attention is directed to the fact that Work may be conducted at the site by other Contractors during the performance of the Work under this Contract. The CONTRACTOR shall conduct its operations so as to cause a minimum of interference with the Work of such other Contractors, and shall cooperate fully with such Contractors to provide continued safe access to their respective portions of the site, as required to perform their respective contracts.



#### 1.04 CONTRACTOR USE OF PROJECT SITE

- A. The CONTRACTOR's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices, as instructed by the CITY.
- B. Disposal of Debris: All debris, materials, piping, and miscellaneous waste products from the Work described in this section shall be removed from the project as soon as possible. They shall be disposed of in accordance with applicable federal, state, and local regulations. The CONTRACTOR is responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

#### 1.05 CITY USE OF THE PROJECT SITE

- A. The CITY may utilize all or part of the facilities during the entire period of construction for the conduct of the CITY's normal operations. The CONTRACTOR shall cooperate with the CITY to minimize interference with the CONTRACTOR's operations and to facilitate the CITY's operations.

#### 1.06 PROJECT MEETINGS

- A. Preconstruction Conference: Prior to the commencement of Work at the site, a preconstruction conference will be held at a mutually agreed time and place which shall be attended by the CONTRACTOR, its superintendent, and its subcontractors as appropriate. Other attendees will be:
  - 1. Representatives of the CITY.
  - 2. Governmental representatives as appropriate.
  - 3. Others as requested by CONTRACTOR, CITY, or ENGINEER.
- B. CONTRACTOR shall bring to the conference one copy each of the following:
  - 1. Preliminary schedule including identifying each well and the major components of each well including but not limited to pad monitor well sampling, mobilization, preliminary pressure test, certified pressure test, video survey, radioactive tracer survey (RTS) and site restoration.
  - 2. Schedule of Payment Items (breakdown of items) for progress payment purposes.
- C. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda will include:
  - 1. CONTRACTOR's tentative schedules.
  - 2. Transmittal, review, and distribution of CONTRACTOR's submittals.
  - 3. Processing applications for payment.

4. Maintaining record documents.
  5. Critical work sequencing.
  6. Field decisions and Change Orders.
  7. Site access.
  8. Use of project site, office and storage areas, security, housekeeping, the CITY's needs.
- D. The ENGINEER will preside at the preconstruction conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.
- E. Progress Meetings: The ENGINEER will conduct on-site progress meeting before the testing of the second injection well. The CITY, CONTRACTOR and ENGINEER shall be represented at each meeting.
- F. The ENGINEER will preside at the meetings and provide for keeping and distribution of the minutes. The purpose of the meetings will be to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

#### 1.07 PERMITS

- A. It shall be the CONTRACTOR's responsibility to secure all permits of every description required to initiate and complete the work under this contract, except permits obtained by the CITY.
- B. Permits that have been obtained by the CITY or its authorized representative (copies are available to the CONTRACTOR), include the following: FDEP Approval Letter and the MIT plan submitted to FDEP.

#### 1.08 SITE CONDITIONS

- A. The CONTRACTOR acknowledges that it has investigated prior to bidding and satisfied itself as to the conditions affecting the Work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides, water tables or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during execution of the Work. The CONTRACTOR further acknowledges that it has satisfied itself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, or any contiguous site, as well as from information presented by the Drawings and Specifications made a part of this Contract, or any other information made available to it prior to receipt of Bids. Any failure by the CONTRACTOR to acquaint itself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the

Work. The CITY assumes no responsibility for any conclusions or interpretations made by the CONTRACTOR on the basis of the information made available by the CITY.

#### 1.09 DIMENSIONS OF EXISTING FACILITIES

- A. Where the dimensions and locations of existing improvements are of critical importance in the installation or connection of new work, the CONTRACTOR shall verify such dimensions and locations in the field prior to the fabrication and/or installation of materials or equipment which are dependent on the correctness of such information.

#### 1.10 PROGRESS SCHEDULE

- A. Within seven days after the award of the Contract, the CONTRACTOR shall prepare and submit copies of its proposed progress schedule to the ENGINEER for review and comments. The schedule shall be prepared in the form of a horizontal bar chart showing in detail the proposed sequence of the work and identifying testing activities for each well. The schedule shall be time scaled, identifying the first day of each week, with the estimated date of starting and completion of each stage of the work in order to complete the project within the Contract time.

#### 1.11 TEMPORARY UTILITIES

- A. It shall be the CONTRACTOR's responsibility to provide equipment that is adequate for the performance of the Work under this Contract within the time specified. All equipment shall be kept in satisfactory operating condition, shall be capable of safely and efficiently performing the required Work, and shall be subject to review by the CITY's representative at any time within the duration of the Contract. All Work hereunder shall conform to the applicable requirements of the OSHA Standards for Construction.
- B. The CONTRACTOR shall provide for utilities and services for its own operations. The CONTRACTOR shall furnish, install and maintain all temporary utilities during the contract period including removal upon completion of the Work.
- C. Water: Water for testing will be provided by the CITY. The CONTRACTOR shall provide and maintain all meters, piping, fittings, adapters, and valving required. The CONTRACTOR shall make all necessary connections to existing piping and shall provide all necessary appurtenances at his own expense. Potable water shall only be used for activities that cannot be performed with reclaimed water.
- D. Reclaimed water (filtered and chlorinated secondary effluent) is available for flushing. The CITY will maintain a minimum chlorine residual concentration of 1 milligram per liter in the reclaimed water.
- E. Before final acceptance of the Work on the project, all temporary connections and piping installed by the CONTRACTOR shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the ENGINEER and to the agency owning the affected utility.

#### 1.12 TEMPORARY SANITARY FACILITIES

- A. The CONTRACTOR shall provide and maintain adequate and clean sanitary facilities for the construction work force and visitors. The facilities shall comply with local codes and regulations and be situated in an acceptable location.

### 1.13 PROTECTION OF EXISTING FACILITIES

- A. The CONTRACTOR shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- B. The CONTRACTOR shall verify the exact locations and depths of all utilities shown and the CONTRACTOR shall make exploratory excavations of all utilities that may interfere with the Work. All such exploratory excavations shall be performed as soon as practicable after award of Contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the CONTRACTOR's Work. When such exploratory excavations show the utility location as shown to be in error, the CONTRACTOR shall so notify the ENGINEER.

### 1.14 CONTRACTOR'S SITE ACCESS

- A. The CITY maintains a perimeter chain link fence and security gates. An electronic gate restricts access. Vehicles entering or leaving the facility are required to check with plant personnel via the intercom system located at the gate. CONTRACTOR shall provide a list of all workers to be entering the plant including employees and subcontractor employees.

### 1.15 CONTRACTOR'S WORK AND STORAGE AREA

- A. Storage areas shall be provided within the area designated by the Owner. The staging areas shown are general and do not indicate limits of construction. 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 CITY by reasons of any act of an employee or trespasser. Should an occasion arise necessitating access to an area occupied by stored equipment and/or materials, the CONTRACTOR shall immediately move them. No equipment or materials shall be placed upon the CITY's property until it is acceptable to the CITY.
- B. If the CONTRACTOR requires additional staging area provided by the ENGINEER, the CONTRACTOR shall obtain such areas from offsite sources at no additional cost to the CITY.
- C. Upon completion of the Contract, the CONTRACTOR shall remove from the storage areas all of its equipment, temporary fencing, surplus materials, rubbish, etc., and restore the areas.

### 1.16 SECURITY

- A. 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.

## 1.17 SAFETY AND PROTECTION DEVICES

- A. It shall be the sole responsibility of the CONTRACTOR to protect persons from injury and to avoid property damage. Adequate barricades, construction signs, torches, red lanterns, and guards as required shall be placed and maintained during the progress of the construction work for the protection of the public in compliance with all federal, OSHA and local ordinances.
- B. The CONTRACTOR shall have unit responsibility for and be required to make good, at its own expense, all damage to property or adjacent properties caused in the execution of this Contract.
- C. The CONTRACTOR shall take all necessary precautions for the safety of its employees on the job and shall comply with all applicable provisions of federal, State, CITY, and municipal safety laws and regulations to prevent accidents or injury to persons on, about, or adjacent to the premises where the Work is being performed.
- D. In the event, the CONTRACTOR's tools or materials delivered to the premises are stolen or damaged, it shall be responsible for such theft.

### PART 2 – PRODUCTS (Not Used)

### PART 3 – EXECUTION (Not Used)

- END OF SECTION -

## SECTION 01025 - MEASUREMENT AND PAYMENT

### PART 1 – GENERAL

#### 1.01 THE REQUIREMENT

- A. Payment for the various items in the Schedule of Payment items, as further specified herein, shall include all compensation to be received by the CONTRACTOR for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, taxes, materials, commissions, transportation and handling, bonds, permit fees, insurance, overhead and profit, and incidentals appurtenant to the items of Work being described, as necessary to complete the various items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). Such compensation shall also include payment for any loss or damages arising directly or indirectly from the Work.
- B. The CONTRACTOR's attention is called to the fact that the quotations for the various items of Work are intended to establish a total price for completing the Work in its entirety. Should the CONTRACTOR feel that the cost for any item of Work has not been established by the Schedule of Payment items or this Section, it shall include the cost for that Work in some other applicable bid item, so that its proposal for the project does reflect its total price for completing the Work in its entirety.

#### 1.02 SCHEDULE OF VALUES BIDS

- A. Item No. 1 – Injection Well MIT: Payment for Mechanical Integrity Testing of Injection Wells IW-1 and IW-2 will be made at the lump sum price named in the Bid Schedule and shall include mobilization onto the site of all equipment; temporary containment facilities, construction of containment at each wellhead, removing and reinstallation of wellhead piping; implementing security requirements; installing temporary construction power, wiring and lighting facilities; all on-site communication facilities; on-site sanitary facilities, temporary water facilities, chemicals, disposal of fluids, all required bonds and insurance; having all OSHA required notices and establishment of safety programs and submitting initial submittals, video surveys, temperature logs, pressure tests, radioactive tracer surveys, demobilization and for all other work required for complete testing of the injection wells for the Work to be completed in accordance with the Contract Documents.
- B. Item No. 2 – Consideration for Indemnification: In recognition of CONTRACTOR's indemnification obligations, the CITY will pay to the CONTRACTOR the specific consideration of ten dollars (\$10.00). Payment of said specific consideration shall be made at the time of the payment of the first progress estimate and the CONTRACTOR shall acknowledge payment of this consideration by letter to the CITY after receipt of the progress payment.
- C. Item No. 3 – Undefined Conditions Allowance: Included in this allowance is work associated with undefined conditions or conflicts developing from undefined conditions. All work authorized for payment will be authorized in writing by the CITY. Amount to be

paid per undefined conditions or conflicts shall be negotiated or agreed to by both parties.

### 1.03 SCHEDULE OF PAYMENT VALUES

- A. The CONTRACTOR shall submit a Schedule of Payment Values for review with the return of the executed Agreement to the CITY. The schedule shall contain the installed value of the component parts of Work for the purpose of making progress payments during the construction period.
- B. The schedule shall be given in sufficient detail for proper identification of Work accomplished. The Schedule of Payment Values shall directly correlate to each activity outlined in the construction progress schedule and the construction network analysis (specified in the Section 01300, Submittals) to accurately relate construction progress to the requested payment. Each item shall include its proportional share of all costs including the CONTRACTOR's overhead, contingencies and profit. The sum of all scheduled items shall equal the total value of the Contract.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -



## SECTION 01070 - ABBREVIATIONS

PART 1 – GENERAL

## 1.01 THE REQUIREMENT

- A. Wherever in these specifications references are made to the standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronym or abbreviation only. As a guide to the user of these specifications, the following acronyms or abbreviations which may appear in these specifications shall have the meanings indicated herein.

## 1.02 ABBREVIATIONS AND ACRONYMS

AAMA	Architectural Aluminum Manufacturer's Association
AASHTO	American Association of the State Highway and Transportation Officials
ACI	American Concrete Institute
ACOE	Army Corps of Engineers
ACPA	American Concrete Pipe Association
AFBMA	Anti-Friction Bearing Manufacturer's Association, Inc.
AGMA	American Gear Manufacturer's Association
AHGDA	American Hot Dip Galvanizers Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
API	American Petroleum Institute
APHA	American Public Health Association
APWA	American Public Works Association
ASA	Acoustical Society of America
ASAE	American Society of Agriculture Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASLE	American Society of Lubricating Engineers
ASME	American Society of Mechanical Engineers
ASMM	Architectural Sheet Metal Manual
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BCEPGMD	Broward County Environmental Protection and Growth Management Department

BCHD	Broward County Health Department
BHMA	Builders Hardware Manufacturer's Association
CMA	Concrete Masonry Association
CRSI	Concrete Reinforcing Steel Institute
DIPRA	Ductile Iron Pipe Research Association
EIA	Electronic Industries Association
ETL	Electrical Test Laboratories
FBC	Florida Building Code
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FS	Federal Specifications
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
ISO	International Organization for Standardization
MBMA	Metal Building Manufacturer's Association
MTI	Marine Testing Institute
NAAM	National Association of Architectural Metal Manufacturer's
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
NIOSH	National Institute of Occupational Safety and Health
NRCA	National Roofing Contractors Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
SMACCNA	Sheet Metal and Air Conditioning Contractors National Association
SSPC	Society for Protective Coatings
SSPWC	Standard Specifications for Public Works Construction
SFWMD	South Florida Water Management District
UL	Underwriters Laboratories, Inc.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

- END OF SECTION -

## SECTION 01090 - REFERENCE STANDARDS

### PART 1 – GENERAL

#### 1.01 THE REQUIREMENT

- A. Titles of Sections and Paragraphs: Captions accompanying specification sections and paragraphs are for convenience of reference only, and do not form a part of the Specifications.
- B. Applicable Publications: Whenever in these Specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date of the opening of bids, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the Drawings shall be waived because of any provision of, or omission from, said standards or requirements.
- C. Specialists, Assignments: In certain instances, Specification text requires (or implies) that specific work is to be assigned to specialists or expert entities, who must be engaged for the performance of that work. Such assignments shall be recognized as special requirements over which the CONTRACTOR has no choice or option. These requirements shall not be interpreted so as to conflict with the enforcement of building codes and similar regulations governing the Work; also they are not intended to interfere with local union jurisdiction settlements and similar conventions. Such assignments are intended to establish which party or entity involved in a specific unit of work is recognized as "expert" for the indicated construction processes or operations. Nevertheless, the final responsibility for fulfillment of the entire set of contract requirements remains with the CONTRACTOR.

#### 1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Without limiting the generality of other requirements of the specifications, all work specified herein shall conform to or exceed the requirements of all applicable codes.
- B. References herein to "Building Code" shall mean the Florida Building Code (FBC). The latest edition of the code as approved and used by the local agency as of the date of the Notice to Proceed, as adopted by the agency having jurisdiction, shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.
- C. In case of conflict between codes, reference standards, Drawings and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the ENGINEER for clarification and directions prior to ordering or providing any materials or labor. The CONTRACTOR shall follow the most stringent requirements.
- D. Applicable Standard Specifications: The CONTRACTOR shall construct the Work specified herein in accordance with the requirements of the Contract Documents and the

referenced portions of those referenced codes, standards, and Specifications listed herein.

- E. References herein to "OSHA Regulations for Construction" shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
- F. References herein to "OSHA Standards" shall mean Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (OSHA), including all changes and amendments thereto.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not used)

- END OF SECTION -

## SECTION 01300 - SUBMITTALS

PART 1 -- GENERAL

## 1.01 THE REQUIREMENT

- A. This section specifies the means of all submittals. All submittals, whether their final destination is to the Owner, ENGINEER, or other representatives of the Owner, shall be directed through the ENGINEER. A general summary of the types of submittals and the number of copies required is as follows:

<u>Copies to ENGINEER</u>	<u>Type of Submittal</u>
6	Progress / Construction Schedule
6	Schedule of Payment Items
4	Progress Payment Requests
1	Gauge and Meter Calibration Certificates
1	Tracer Material Documentation
1	Geophysical Logs and Test Results – Field Copy
12	Geophysical Logs and Test Results – Final Copy

## 1.02 SUBMITTAL PROCEDURES

- A. Transmit each submittal with a form acceptable to the ENGINEER, clearly identifying the project CONTRACTOR, the enclosed material and other pertinent information specified in other parts of this section. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- B. Revise and resubmit submittals as required, identify all changes made since previous submittals. Resubmittals shall be noted as such.
- C. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

## 1.03 CONSTRUCTION PROGRESS SCHEDULE

- A. Within seven days after the award of the Contract, the CONTRACTOR shall prepare and submit six copies of its proposed progress schedule to the ENGINEER for review and comments.
- B. The schedule shall be prepared in the form of a horizontal bar chart showing in detail the proposed sequence of the work and identifying construction activities for each well. The schedule shall be time scaled, identifying the first day of each week, with the estimated date of starting and completion of each stage of the work in order to complete the project within the Contract time.

- C. The progress schedule shall be revised to reflect comments by the ENGINEER and updated monthly, depicting progress to the last day of the month. Six copies shall be submitted along with the application for monthly progress payments.
- D. Subsequent changes to the schedule shall be accompanied by a letter of explanation with appropriate reference and revision date on the schedule.

#### 1.04 CERTIFICATES

- A. Copies of meter and gauge certificates shall be submitted to the ENGINEER at least 72 hours prior to the test they are intended to be used for.

#### 1.05 GEOPHYSICAL LOGS

- A. Refer to Division 13 for geophysical log submittal information.

#### 1.09 PROJECT RECORDS

- A. Prior to Substantial Completion of the Work, the CONTRACTOR shall finalize and deliver a complete set of project testing results to the ENGINEER.

#### PART 2 -- PRODUCTS (Not Used)

#### PART 3 -- EXECUTION (Not Used)

- END OF SECTION -

## SECTION 01560 - TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 – GENERAL

## 1.01 EXPLOSIVES AND BLASTING

- A. The use of explosives on the Work will not be permitted.

## 1.02 DUST ABATEMENT

- A. The CONTRACTOR shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary (as determined by the ENGINEER) to prevent its operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance to persons living in or occupying buildings in the vicinity. The CONTRACTOR shall be responsible for any damage resulting from any dust originating from its operations. The dust abatement measures shall be continued until the CONTRACTOR is relieved of further responsibility by the ENGINEER. No separate payment will be allowed for dust abatement measures and all costs thereof shall be included in the CONTRACTOR's bid price.

## 1.03 RUBBISH CONTROL

- A. During the progress of the Work, the CONTRACTOR shall keep the site of the Work and other areas used by it in a neat and clean condition, and free from any accumulation of rubbish. The CONTRACTOR shall dispose of all rubbish and waste materials of any nature occurring at the Work site, and shall establish regular intervals of collection and disposal of such materials and waste. The CONTRACTOR shall also keep its haul roads free from dirt, rubbish, and unnecessary obstructions resulting from its operations. Disposal of all rubbish and surplus materials shall be off the site of construction in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Part 1926 of the OSHA Safety and Health Standards for Construction.

## 1.04 SANITATION

- A. Toilet Facilities: Fixed or portable chemical toilets shall be provided wherever needed for the use of employees. Toilets at construction job sites shall conform to the requirements of Part 1926 of the OSHA Standards for Construction.
- B. Such facilities shall be made available when the first employees arrive on the Work, shall be properly secluded from public observation, and shall be constructed and maintained in suitable numbers and at such points and in such manner as may be required.
- C. The CONTRACTOR shall maintain the sanitary facilities in a satisfactory and sanitary condition at all time and shall enforce their use. It shall rigorously prohibit the committing of nuisances on the site of the Work, on the lands of the CITY, or on adjacent property.

- D. The CITY and the ENGINEER shall have the right to inspect any building or other facility erected, maintained, or used by the CONTRACTOR, to determine whether or not the sanitary regulations have been complied with.
- E. Sanitary and Other Organic Wastes: The CONTRACTOR shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the CONTRACTOR or organic material wastes from any other source related to the CONTRACTOR's operations shall be disposed of away from the site in a manner satisfactory to the ENGINEER and in accordance with all laws and regulations pertaining thereto.
- F. The CONTRACTOR shall not be permitted to use CITY toilet facilities.

#### 1.05 CHEMICALS

- A. All chemicals used during project construction or furnished for project operation, whether defoliant, soil sterilant, herbicide, pesticide, disinfectant, polymer, paint, fuel, solvent or reactant of other classification, shall show approval of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture. The handling, storage, use and disposal of all such chemicals and disposal of residues shall be in strict accordance with all applicable rules and regulations of Federal, State and local jurisdictional agencies and the printed instructions of the manufacturer and all regulatory requirements. Copies of antidote literature shall be kept at the storage site and at the CONTRACTOR's job site office. A supply of antidotes shall be kept at the CONTRACTOR's office.

#### 1.06 NOISE CONTROL

- A. Noise resulting from the CONTRACTOR's work shall not exceed the noise levels and other requirements stated in local ordinances. The CONTRACTOR shall be responsible for curtailing noise resulting from its operation. It shall, upon written notification from the ENGINEER or noise control officers, make any repairs, replacements, adjustments, additions and furnish mufflers when necessary to fulfill requirements.

#### 1.07 EROSION ABATEMENT AND WATER POLLUTION

- A. It is imperative that any CONTRACTOR dewatering operation not contaminate or disturb the environment of the properties adjacent to the Work. The CONTRACTOR shall, therefore, schedule and control its operations to confine all runoff water from disturbed surfaces, water from dewatering operations that becomes contaminated with silt, muck and other deleterious matter, fuels, oils, bitumens, calcium chloride, chemicals and other polluting materials.
- B. The CONTRACTOR shall construct temporary silting basin(s) of adequate size and provide all necessary temporary materials, operations and controls including, but not limited to, filters, coagulants, screens, and other means necessary to attain the required discharge water quality.
- C. The CONTRACTOR shall be responsible for providing, operating and maintaining materials and equipment used for conveying the clear water to the point of discharge. All pollution prevention procedures, materials, equipment and related items shall be



operated and maintained until such time as the dewatering operation is discontinued. Upon the removal of the materials, equipment and related items, the CONTRACTOR shall restore the area to the condition prior to its commencing work.

- D. The CONTRACTOR shall be responsible for acquiring all applicable permits for discharge of waters as necessary, except as may have otherwise been provided in other sections of these specifications.

#### 1.08 PRECAUTIONS DURING ADVERSE WEATHER

- A. During adverse weather, and against the possibility thereof, the CONTRACTOR shall take all necessary precautions so that the Work may be properly done and satisfactory in all respects. When required, protection shall be provided by use of tarpaulins, wood and building paper shelters, or other acceptable means. The CONTRACTOR shall be responsible for all changes caused by adverse weather.
- B. The ENGINEER may suspend construction operations at any time when, in its judgment, the conditions are unsuitable or the proper precautions are not being taken, whatever the weather conditions may be, in any season.

#### 1.09 HURRICANE AND STORM WARNINGS

- A. The CONTRACTOR shall take all precautions necessary to protect the job site during hurricane and storm watches and warnings.

#### 1.10 PERIODIC CLEANUP AND BASIC SITE RESTORATION

- A. During construction, the CONTRACTOR shall regularly remove from the site all accumulated debris and surplus materials of any kind which results from its operations. Unused equipment and tools shall be stored at the CONTRACTOR's yard or base of operations for the project.
- B. The CONTRACTOR shall perform the cleanup work on a regular basis and as frequently as ordered by the ENGINEER. Basic site restoration in a particular area shall be accomplished immediately following the installation or completion of the required facilities in that area. Furthermore, such work shall also be accomplished, when ordered by the ENGINEER, if partially completed facilities must remain incomplete for some time period due to unforeseen circumstances.
- C. Upon failure of the CONTRACTOR to perform periodic clean-up and basic restoration of the site to the ENGINEER's satisfaction, the ENGINEER may, upon five days prior written notice to the CONTRACTOR, employ such labor and equipment as it deems necessary for the purpose, and all costs resulting therefrom shall be charged to the CONTRACTOR and deducted from amounts of money that it may be due.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

## SECTION 01700 - PROJECT CLOSEOUT

PART 1 – GENERAL

## 1.01 FINAL CLEANUP

- A. The CONTRACTOR shall promptly remove from the vicinity of the completed Work, all rubbish, unused materials, concrete forms, construction equipment, temporary structures and facilities, construction signs, tools, scaffolding, materials, supplies and equipment which may have been used in the performance of the Work. CONTRACTOR shall broom clean paved surfaces and rake clean other surfaces of grounds. Final acceptance of the Work by the CITY will be withheld until the CONTRACTOR has satisfactorily complied with the foregoing requirements for final cleanup of the project site.
- B. CONTRACTOR shall thoroughly clean all materials, equipment and structures; all marred surfaces shall be touched up to match adjacent surfaces.
- C. CONTRACTOR shall remove paint, clean and restore all equipment and material nameplates, labels and other identification markings.
- D. The CONTRACTOR shall:
  - 1. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
  - 2. Use each type of cleaning material on only those surfaces recommended by the cleaning material manufacturer.
  - 3. Use only materials which will not create hazards to health or property.

## 1.02 FINAL SUBMITTALS

- A. Before the final acceptance of the project, the CONTRACTOR shall submit to the ENGINEER (or to the CITY if indicated) certain records, certifications, etc., which are specified elsewhere in the Contract Documents. Missing, incomplete or unacceptable items, as determined by the ENGINEER or the CITY, shall constitute grounds for withholding final payment to the CONTRACTOR. A partial list of such items appears below, but it shall be the CONTRACTOR's responsibility to submit any other items which are required in the Contract Documents:
  - 1. Written Test results of project components, where required.
  - 2. Copies of each video survey submitted on flash drive and copies of each temperature log and RTS survey submitted on flash drive within seven days of the completion of the MIT. Number of copies shall be per Specification 13199.
  - 3. Releases from all parties who are entitled to claims against the subject project, property, or improvement pursuant to the provisions of law.

### 1.03 PUNCH LISTS

- A. Final cleaning and repairing shall be scheduled upon completion of the project.
- B. The ENGINEER will make its final inspection whenever the CONTRACTOR has notified the ENGINEER that the work is ready for the inspection. Any work not found acceptable and requiring cleaning, repair and/or replacement will be noted on the "Punch" list. Work that has been inspected and accepted by the ENGINEER shall be maintained by the CONTRACTOR, until final acceptance of the entire project.
- C. Whenever the CONTRACTOR has completed the items on the punch list, it shall again notify the ENGINEER that it is ready for final inspection. This procedure will continue until the entire project is accepted by the ENGINEER. The "Final Payment" will not be processed until the entire project has been accepted by the ENGINEER and all of the requirements in previous Article 1.02 "Final Submittals" have been satisfied.

### 1.04 TOUCH-UP AND REPAIR

- A. The CONTRACTOR shall touch-up and repair damage to all field painted piping and valves. Touch-up of equipment panels, etc., shall match as nearly as possible the original finish. If in the opinion of the ENGINEER the touch-up work is not satisfactory, the CONTRACTOR shall repaint the item.

### PART 2 – PRODUCTS (Not Used)

### PART 3 – EXECUTION (Not Used)

- END OF SECTION -

**DIVISION 9**

**FINISHES**



## SECTION 09900 - PAINTING

PART 1 -- GENERAL

## 1.01 SCOPE

- A. The CONTRACTOR shall touch-up paint at each well where piping is dismantled or otherwise disturbed by the CONTRACTOR's activities. The CONTRACTOR shall furnish all labor, tools, materials, supervision and equipment necessary to do all the Work specified herein and as required for a complete installation, including surface preparation priming and painting.
- B. The CONTRACTOR shall obtain all permits, licenses and inspections and shall comply with all laws, codes, ordinances, rules and regulations promulgated by authorities having jurisdiction which may bear on the Work. This compliance will include Federal Public Law 91-596 more commonly known as the "Occupational Safety and Health Act of 1970".

## 1.02 MANUFACTURERS

- A. All painting materials shall be as manufactured by Ameron, Carboline, Sherwin Williams, Tnemec, or equal.

## 1.03 SUBMITTALS AND SERVICES

- A. The CONTRACTOR shall submit paint manufacturer's data sheets and samples of each color to the ENGINEER for review, before any Work is started in accordance with the Section titled "Submittals".

## 1.04 MANUFACTURERS' INSTRUCTIONS

- A. The CONTRACTOR shall purchase paint from an acceptable manufacturer. The manufacturers' published instructions for use as a guide in specifying and applying the manufacturers' proposed paint shall be submitted to the ENGINEER. Paint shall not be delivered to the job before acceptance of the manufacturers' instructions is given by the ENGINEER.

## 1.05 SURFACES NOT TO BE COATED

- A. The following list of items shall not be coated unless otherwise noted.
  - 1. Stainless steel work.
  - 2. Flexible couplings, lubricated bearing surfaces, insulation and plastic pipe and conduit.
  - 3. Packing glands and other adjustable parts of mechanical equipment.
  - 4. Signs, nameplates, serial numbers, and operating instruction labels.

**PART 2 -- PRODUCTS****2.01 MATERIALS**

- A. Table 09900-1 depicts the coatings referenced in Article 3.03 of this Section, "Paint Schedule". No lead containing protective coating materials may be used on this project.

**TABLE 09900-1  
PRODUCT LISTING**

<u>Reference Number</u>	<u>Description</u>	<u>Manufacturers Reference Carboline or equal</u>
101	Epoxy, Gloss	Carboguard 890

**PART 3 -- EXECUTION****3.01 SHIPPING, HANDLING AND STORAGE**

- A. All painting materials shall be brought to the job site in the original sealed labeled containers of the paint manufacturer and shall be subject to inspection by the ENGINEER. Packages shall not be opened until they are inspected by the ENGINEER and required for use. Where thinning is necessary, only the product of the manufacturer furnishing the paint shall be used. All such thinning shall be done strictly in accordance with the manufacturer's instructions, and with the full knowledge of the ENGINEER.

**3.02 SURFACE PREPARATION****A. General**

1. Surfaces to be painted shall be clean and dry, and free of dust, rust, scale and all foreign matter. No solvent cleaning, power or hand tool cleaning shall be permitted unless approved by the ENGINEER or specified herein.
2. Except as otherwise provided, all preparation of metal surfaces shall be in accordance with Specifications SP-1 through SP-10 of the Society for Protective Coatings (SSPC). Where SSPC Specifications are referred to in these Contract Documents, the corresponding Pictorial Surface Preparation Standard shall be used to define the minimum final surface conditions to be supplied. Grease and oil shall be removed and the surface prepared by hand tool cleaning, power tool cleaning or blast cleaning in accordance with the appropriate Specification SP-1 through SP-10.

**B. Ferrous Metal Surfaces**

1. All ferrous metal surfaces not required to be galvanized shall be cleaned of all oil, grease, dirt and rust by power tools in accordance with SSPC-SP-3, or in difficult and otherwise inaccessible areas by hand cleaning in accordance with SSPC-SP-2 and spot primed.

### 3.03 PAINT SCHEDULE

#### A. General

1. The CONTRACTOR shall adhere to this paint schedule, providing those paints named or approved equal. DFT shall mean the total minimum dry film thickness per application measured in mils. Products are referenced by numbers listed in Article 2.01 of this Section, "Materials", and listed in Table 09900-1.

#### B. Metal Surfaces, Exterior (Atmospheric) Exposure:

1. Metal surfaces exposed to the atmosphere shall be painted as described below:

<u>Application</u>	<u>No.</u>	<u>Description</u>	<u>DFT</u>
First - 1 coat spot prime	101	Epoxy, Gloss	4.0 - 6.0
Second - 1 coat	101	Epoxy, Gloss	4.0 – 6.0

### 3.04 PAINTING

- A. Application: All paint shall be applied by experienced painters with top quality, properly styled brushes, rollers or other applicators reviewed by the ENGINEER and the paint manufacturers.
- B. Drying Time: A minimum of twenty-four hours drying time shall elapse between application of any two coats of paint on a particular surface unless shorter time periods are a requirement of the manufacturer or specified herein.

### 3.05 SCHEDULE OF COLORS

- A. All colors shall match existing colors.

### 3.06 CLEANING

- A. The CONTRACTOR shall protect at all times, in areas where painting is being done, floors, materials of other crafts, equipment, vehicles, fixtures, and finished surfaces adjacent to paint work.
- B. At completion of the Work, remove all paint where spilled, splashed, splattered, sprayed or smeared on all surfaces, painted or unpainted.

- END OF SECTION -



**DIVISION 13**  
**SPECIAL CONSTRUCTION**

## SECTION 13199 – MECHANICAL INTEGRITY TESTING

### PART 1 -- GENERAL

#### 1.01 THE REQUIREMENT

- A. The work described in this Section of the Specifications is for the mechanical integrity testing of two existing injection wells at the City of Hollywood Southern Regional Wastewater Treatment Plant (SRWWTP). As indicated in the Figures, each well has a 24-inch diameter final casing installed to a depth of approximately 2,880 feet below land surface (bls) and a nominal 24-inch diameter open hole to approximately 3,500 feet bls. The CONTRACTOR shall perform casing brushing, a downhole video survey, pressure test, static temperature survey and radioactive tracer survey on each injection well. This Section contains procedures to be implemented by the CONTRACTOR to perform these services. Time is of the essence in completing this program. No unreasonable delays will be tolerated in beginning or completing this program.
- B. Scheduling is essential for the testing performed under this contract. FDEP will witness the pressure test and the radioactive tracer survey. They require 7 days' notice prior to testing. The CONTRACTOR's schedule shall be continually updated as changes to the schedule are made. If the preliminary test is scheduled to be performed the day before the witnessed test, it must be successfully completed by 4 PM so that confirmation of the test can be provided to the parties witnessing the test.
- C. Unless otherwise stated, the CONTRACTOR shall provide all labor, equipment, materials, tools, and utilities necessary to complete all work described in these Contract Documents. At the completion of the procedures, the CONTRACTOR shall remove all equipment used for the work and leave the site in a condition acceptable to the CITY.
- D. The CONTRACTOR shall be advised that in addition to the time requirements identified in the Contract, testing completion dates have been established by FDEP.

#### **MIT Completion Dates**

<u>Well</u>	<u>Completion Dates</u>
IW-1	August 20, 2022
IW-2	August 30, 2022

- E. Only one well can be taken out of service at a time. Testing shall be performed on one well at a time. Testing and logging shall be completed on IW-1 prior to commencing testing and logging on IW-2.

#### 1.02 PREBID SITE VISIT

- A. All Bidders shall visit the site prior to submitting a Bid for this project. Bidders shall assure themselves of the suitability of their equipment to accommodate the well pads and the

wellhead. Bidders shall satisfy themselves regarding all local conditions affecting their work by personal investigation.

### 1.03 CASING BRUSHING

- A. Drawings of the proposed equipment and piping diagrams to the ENGINEER for review prior to commencement of casing scale removal work and development water disposal. The CONTRACTOR shall include the proposed methods and equipment for cleaning under development conditions.
- B. The general sequence casing cleaning shall be as follows:
  - a. Brushes and brushing tools proposed for use by the CONTRACTOR shall be approved by the ENGINEER and shall be sufficient in material, diameter and length to mechanically clean scale from the casing.
  - b. The brushing tool assembly shall be reciprocated through 10-foot sections of the casing for several minutes. This procedure shall be repeated throughout the entire length of the casing as directed by the ENGINEER.
  - c. Reverse air development equipment shall be operated at such rates of discharge and for such periods of time as are necessary to fully remove the debris from the well, as approved by the ENGINEER.
  - d. The CONTRACTOR shall control and contain development fluid at all times. The fluid shall be contained in tanks of sufficient volume to settle material removed from the well.
  - e. Settled development water will be discharged to the sanitary sewer system. Debris generated from development shall be the responsibility of the CONTRACTOR and shall be disposed of in accordance with local regulations.

### 1.04 OUTLINE SPECIFICATION OF TESTING

- A. Video Survey: A video survey shall be performed on the entire depth of each well, from the top of the 24-inch-diameter injection casing to the bottom of the open hole, using the following procedure.
  - 1. The CONTRACTOR shall have the survey performed by a qualified geophysical logging service company using equipment capable of surveying and recording to the bottom of the open hole. The CONTRACTOR may use his own equipment providing it is capable of surveying as required and shall furnish proof of the capability of the equipment. Survey shall be recorded in color.
  - 2. The CONTRACTOR shall pump into the injection well clean, fresh water as necessary in order to ensure that the borehole fluid is of sufficient clarity to produce a clear and sharp video survey that is acceptable to the ENGINEER.
  - 3. The CONTRACTOR shall be required to keep the artesian pressure of the well under control at all times by use of a stripper head and other equipment necessary.
  - 4. The video camera shall be centralized within the well and positioned to record viewing downhole with the ability to turn the camera lens 90 degrees and rotate horizontally 360 degrees to obtain a side view at desired depths.

- B. Pressure Testing: A pressure test shall be conducted in each injection well using the following procedure.
1. The CONTRACTOR shall supply a pressure gauge and an equivalent backup gauge, both with a calibrated range from 0 to 300 psi in one psi increments, with an accuracy of plus or minus 0.25 percent. The pressure gauge shall be located in an easily accessible and visible location, and at a height for those observing and witnessing the testing as acceptable to the ENGINEER.
  2. The CONTRACTOR shall submit an original written verification of the pressure gauge calibration on site prior to the commencement of the pressure test. The calibration must be within the last sixty days. The serial numbers will be checked to verify that the number on the certification matches the number on the gage. A copy of the calibration certificate will be kept onsite at all times during testing and will be presented to the FDEP representative prior to testing in the field. The pressure gauge calibration certificate shall be provided to the Engineer at least 48 hours prior to the start of the test.
  3. The CONTRACTOR shall be required to keep the artesian pressure of the well under control at all times by use of salt as weight material and other equipment necessary.
  4. An inflatable packer shall be set at a depth located within the lowermost welded joint of the 24-inch diameter injection casing, as determined from the video survey.
  5. The casing shall be filled with water and placed under a pressure of at least 180 pounds per square inch (psi) but not more than 190 psi. A maximum pressure change of 5% is allowed over a sixty-minute test period. The CONTRACTOR shall perform at a minimum a preliminary test and a witnessed test on separate days.
  6. If a pressure change greater than 5% occurs, the test shall be repeated under controlled conditions to the satisfaction of the ENGINEER and the regulatory agencies.
  7. Pressure testing will be witnessed by FDEP and the ENGINEER. The test will be certified in writing by the ENGINEER of record or his authorized representative.
  8. Upon completion of the test, the bleed-off water volume shall be measured to the nearest ½ gallon in a suitable container acceptable to the ENGINEER.
- C. Well Flush: Following the completion of the video survey and pressure test and prior to starting the RTS, the well will be placed back in service overnight to pump a minimum of five well volumes of effluent (347,000 gallons).
- D. Static Temperature Survey: A high-resolution static temperature log, with differential temperature, shall be performed by a qualified geophysical logging company on the entire depth of each well, from the top of the 24-inch-diameter injection casing to the bottom of the open hole. The well shall be shut in for a minimum of 12 hours prior to performing the temperature log.

- E. Radioactive Tracer Survey: Upon completion of the pressure test, temperature and video surveys, a radioactive tracer survey (RTS) shall be performed in each injection well. The CONTRACTOR shall employ the services of a company specializing in furnishing and operating the equipment used in collecting this information. The test procedure shall follow the following outline and the plan approved by the FDEP
- F. A combination gamma ray / temperature (differential and gradient) / radioactive slug ejector tool shall be used to log in the hole, recording temperature from surface to the total well depth. The geophysical tool supplied for the radioactive tracer survey shall be capable of ejecting the radioactive tracer and simultaneously monitoring the gamma ray detectors. The tracer slug should be released from the tool no sooner than 60 seconds after commencement of time-drive logging for each RTS. A casing collar locator (CCL) shall be positioned below the tool to precisely locate the bottom of the casing.
- G. The CONTRACTOR shall submit a sketch of the tool with dimensions to the ENGINEER prior to commencement of testing. The tool shall be configured such that two gamma ray detectors shall be located below and one gamma ray detector shall be located above the ejector. Gamma detectors shall be field calibrated by the geophysical logging crew, using a standard, after the tool has been loaded with the tracer and prior to insertion into the well.
- H. The tracer material shall be medicinal grade Iodine 131. Between 5 and 7 mCi of tracer will be loaded in the field. The actual amount shall be determined in the field. The unused tracer shall be ejected into the flow stream just below the casing during high flow. After the unused portion of the tracer is ejected a final gamma ray log shall be run. The Iodine 131 shall be ordered by the Contractor from a medical supply company. The material has an allowable time for which it can be used. The Contractor shall inform the supplier of the date of the intended RTS and the supplier shall provide fresh material for the test. The material comes with labeling that indicates the calibration date and time. If the test is delayed, it still can be used as long as it is used before the expiration date indicated on the label. A copy of the certification or receipt showing the expiration date of the tracer material used shall be provided prior to initiating the RTS.
- I. The RTS testing shall be conducted according to the following procedure:
1. For casing flushes and dynamic tests, plant effluent can be used so long as it meets secondary treatment level standards.
  2. The combination gamma ray / temperature (differential and gradient) / radioactive slug ejector tool will be used to log in the hole, recording temperature from surface to a total well depth.
  3. A background gamma ray log will be conducted on the total depth of the injection well. Note that the background gamma ray log may be run along with the static temperature survey.
  4. Load the tracer material in the tool after the running of the background gamma ray log. The amount of I-131 to be loaded into the tool for RTS testing shall be sufficient so that there will be enough I-131 to repeat both the first and second test, if necessary. Volume to be loaded shall be a minimum of 5 mCi.

5. The tracer ejector will be positioned approximately five feet above the bottom of the final casing, with one gamma ray detector above the ejector (GRT), and two gamma ray detectors below the ejector (one inside the casing above the casing seat (GRM) and one outside the casing below the casing seat (GRB)).
6. A low injection rate will be established. The velocity will be less than five feet per minute. A flow rate from 71 to 118 gallons per minute (three to five feet per minute, respectively) will be used during the RTS testing. The CONTRACTOR will provide a calibrated totalizing type flow meter for the test. The CONTRACTOR will submit an original written verification of the flow meter calibration prior to commencement of the RTS. The flow meter calibration certificate shall be provided to the ENGINEER prior to the start of the test. Calibration shall be within 60 days of the test.
7. Time drive monitoring will begin and a slug of 1.0 mCi tracer material will be ejected. This release will be confirmed by detectors GRM and GRB.
8. Gamma ray levels will be monitored for at least 60 minutes; if tracer is detected by detector GRT, the combination-logging tool will be raised immediately in 20-foot increments to follow the tracer if any tracer is detected. If the logging tool is to be moved upwards in the event of detection of tracer by the upper detector, the tool will not be moved prior to the time period required for the tracer to travel from the middle detector to the lower detector (theoretically, approximately 2 minutes for a 5 foot/minute flow rate). The tracer should reach the lower detector before proceeding.
9. A log out of position gamma ray log will be run to approximately 200 feet above the casing seat. If any tracer is detected the log will continue at least 200 feet above the highest detection location.
10. Following the log out of position gamma ray log, the casing will be flushed by injecting a minimum of one casing volume (i.e., approximately 25,000 gallons of potable water). The volume of flush may be increased or decreased in the field based on field conditions. After the flush, Step 8 will be repeated. Flushing will be performed only if there is an adverse casing stain.
11. Repeat RTS test (Steps 4 through 9) for a minimum monitoring time of 30 minutes. The ENGINEER may require the CONTRACTOR to eject a slug of 1.5 mCi tracer on the repeat test.
12. Repeat as necessary.
13. Upon completion of the RTS testing, the unused I-131 tracer will be ejected at least 50 feet below the bottom of the final casing string immediately above the uppermost actively receiving interval within the injection zone while the tool is in time drive.
14. Perform final gamma ray log from bottom of open hole to land surface. Compare final gamma ray log with background gamma ray log by printing on same log.

#### 1.05 WATER SUPPLY

- A. Potable water is available at the site (e.g. hydrants, etc.) for the testing program. If a temporary connection is made to a potable water system on-site (e.g., a fire hydrant), the CONTRACTOR must provide a backflow prevention device and a meter, supplied by the

CITY, shall be installed. The CONTRACTOR shall provide temporary piping for the metering and use of potable water, however, the cost of the water for the testing will not be charged to the CONTRACTOR.

#### 1.06 CONTINGENCY PLAN

- A. If the modified well pad fills up with water during an unforeseen emergency, the fluids shall be routed to a plant site lift station or plant drain (to a plant site lift station). The CONTRACTOR shall provide piping and a pumping system in place, at all times, to permit delivery of fluids at a rate of 100 gallons per minute (gpm). The CONTRACTOR also shall have on site a blowout preventer that can be affixed to the wellhead if the well comes "alive" during the testing. The CONTRACTOR shall have a flange or cap to cover the wellhead when operations are not occurring, to prevent malicious acts to the well.

#### 1.07 DAILY LOG

- A. A detailed daily log shall be maintained by the CONTRACTOR during the testing of each well. The log shall give complete descriptions of the depth and sizes of any equipment utilized in the operations, and other such pertinent data. The daily log shall be maintained on-site and available for inspection by any authorized agency representative and the ENGINEER at all times. A copy of the logs shall be submitted to the ENGINEER after the completion of testing at each well.

#### 1.08 DELIVERABLES

- A. The CONTRACTOR shall deliver to the ENGINEER the following items in the time prescribed.
- B. Pretesting Submittals:
  - 1. Gauge and meter certificates: 48 hours prior to the commencement of testing
- C. Field Submittals: Twelve copies of the final geophysical logs (video survey, RTS and temperature survey) shall be delivered to the ENGINEER seven days after the completion of the last test. The video survey shall be submitted on a flash drive. The other logs shall be presented in both pdf and ASCII (LAS) format on a flash drive.
  - 1. Video Surveys: Submitted on a flash drive, one field copy.
  - 2. Temperature Logs: One paper copy and one copy submitted on a flash drive for the field submittal.
  - 3. Radioactive Tracer Surveys (RTS): One paper copy and one copy submitted on a flash drive for the field submittal. Original tracer material documentation shall be submitted in the field prior to testing.
- D. Final Submittals: Twelve copies of the final geophysical logs (video survey, RTS and temperature survey) shall be delivered to the ENGINEER seven days after the completion of the last test. The video survey shall be submitted on a flash drive. The other logs shall be presented in both pdf and ASCII (LAS) and submitted on a flash drive.

- E. Labels on logs and discs shall clearly identify the Owner's name, the site, the well number, type of log, depths and date.
- F. For the CONTRACTOR to be Substantially Complete, all final copies of the video and temperature surveys, pressure test, and the RTS from the well shall be delivered to the ENGINEER. This is in addition to other requirements of substantial completion specified elsewhere.

#### 1.09 QUALITY CONTROL

- A. The CONTRACTOR is responsible for quality control of all testing and logging. A quality control procedure shall be submitted to the ENGINEER prior to the Preconstruction Conference. Depth indicators or counters shall accurately measure the downhole depth of the tool. If the logging or testing equipment fails to accurately measure the downhole depth, the CONTRACTOR shall recalibrate the depth indicator or counter and repeat the log or test.

#### 1.10 REMEDIAL WORK

- A. If remedial work on the injection wells becomes necessary because of accident, loss of tools, defective material, or for any other cause related to his work, the CONTRACTOR shall propose a method of correcting the problem, in writing. Suggested methods shall be reviewed and acceptable to the ENGINEER before work proceeds. The CONTRACTOR shall be responsible for all remedial work resulting from his activities.

### PART 2 -- PRODUCTS (Not Used)

### PART 3 -- EXECUTION

#### 3.01 OPERATING REQUIREMENTS

- A. Groundwater shall be protected from contamination from well fluids by the CONTRACTOR during this project. It is essential that any salty or brackish water produced at the wellhead during operations is prevented from contaminating the shallow aquifer. The well work shall be accomplished without any uncontrolled well-flowing conditions. The CONTRACTOR shall take all necessary steps to prevent accidental spillage from occurring. If a spill does occur, the CONTRACTOR shall be responsible for all remedial activities necessary to the satisfaction of the CITY, the ENGINEER and the regulatory agencies. To minimize the risks associated with uncontrolled flowing of the well, the well shall be closed-in at all times that the CONTRACTOR is not present at the site.
- B. All work on the well shall be coordinated with the plant superintendent.
- C. CONTRACTOR shall take only one single well out of operation at any given time.
- D. CONTRACTOR shall complete testing on one well before authorization is given to proceed with the next well. The ENGINEER shall determine the order in which the wells are tested.
- E. Each well shall not be out of service for more than a total of seven calendar days.



### 3.02 HOURS OF OPERATION

- A. Hours of all normal operations will be limited to 7 A.M. to 7 P.M., Monday through Friday excluding holidays, unless otherwise authorized by the ENGINEER. It is understood that for RTS testing, the hours will be extended.

### 3.03 SCHEDULING TESTS

- A. The CONTRACTOR shall submit his schedule and ongoing updates to the ENGINEER so that the ENGINEER may make the required 72-hour notifications to the Florida Department of Environmental Protection prior to any testing. The start of the pressure test and RTS test shall only occur Monday through Thursday.

### 3.04 EQUIPMENT REQUIREMENTS

- A. Equipment in first-class working order shall be provided by the CONTRACTOR. The equipment shall have at least the minimum capabilities necessary to do the described work. No unnecessary delays or work stoppages will be tolerated because of equipment failure. Equipment failure will not be considered as a valid reason for extending the length of the contract. The CONTRACTOR shall be held responsible for damage to the wells due to any cause including, but not limited to, negligence, faulty operation, or equipment failure.

### 3.05 COMPETENT WORKMEN

- A. The CONTRACTOR shall employ only competent workmen expert in the performance of the type of work required in these Specifications. The crew shall be under the direct supervision of an experienced driller, and the CONTRACTOR shall provide the services of a drilling superintendent who shall be available to the job, when requested. The crew and superintendent shall be in the employ of the CONTRACTOR.

### 3.06 WELLHEAD RESTORATION

- A. All nuts, bolts and washers removed from the existing piping and valves by the CONTRACTOR to facilitate testing shall be replaced with new nuts, bolts and washers of the same material. In addition, existing gaskets shall not be reused. Gaskets shall be replaced with new gaskets on all joints requiring disassembly.

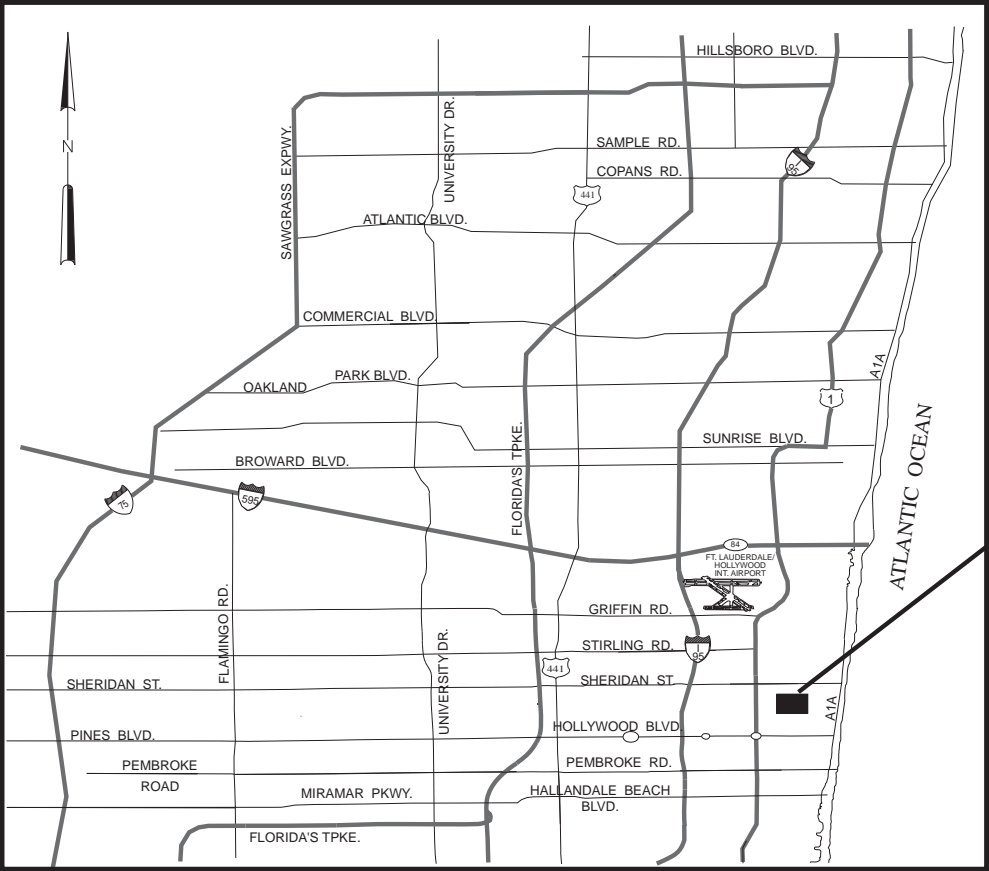
### 3.07 SITE RESTORATION

- A. Site rehabilitation includes but is not limited to touch-up paint on piping disturbed during the work, removal of temporary facilities, repairs of sprinkler systems, and resodding (with Argentine Bahía) and rolling disturbed grassed areas. The CONTRACTOR shall repair any damage caused by the CONTRACTOR.

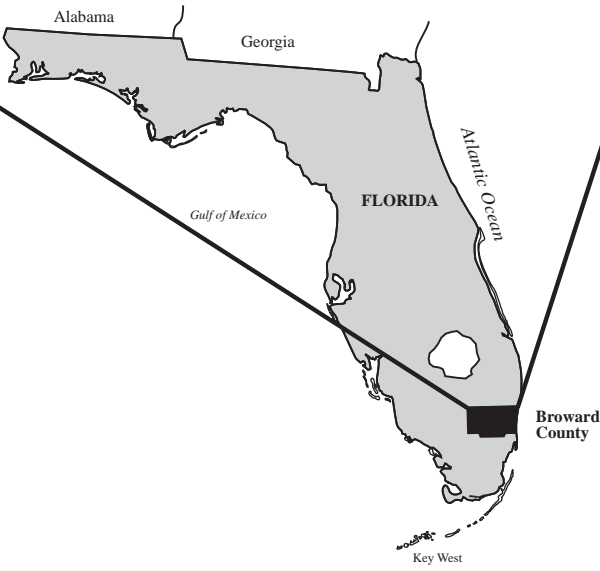
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## **DRAWINGS**



**PROJECT  
SITE**



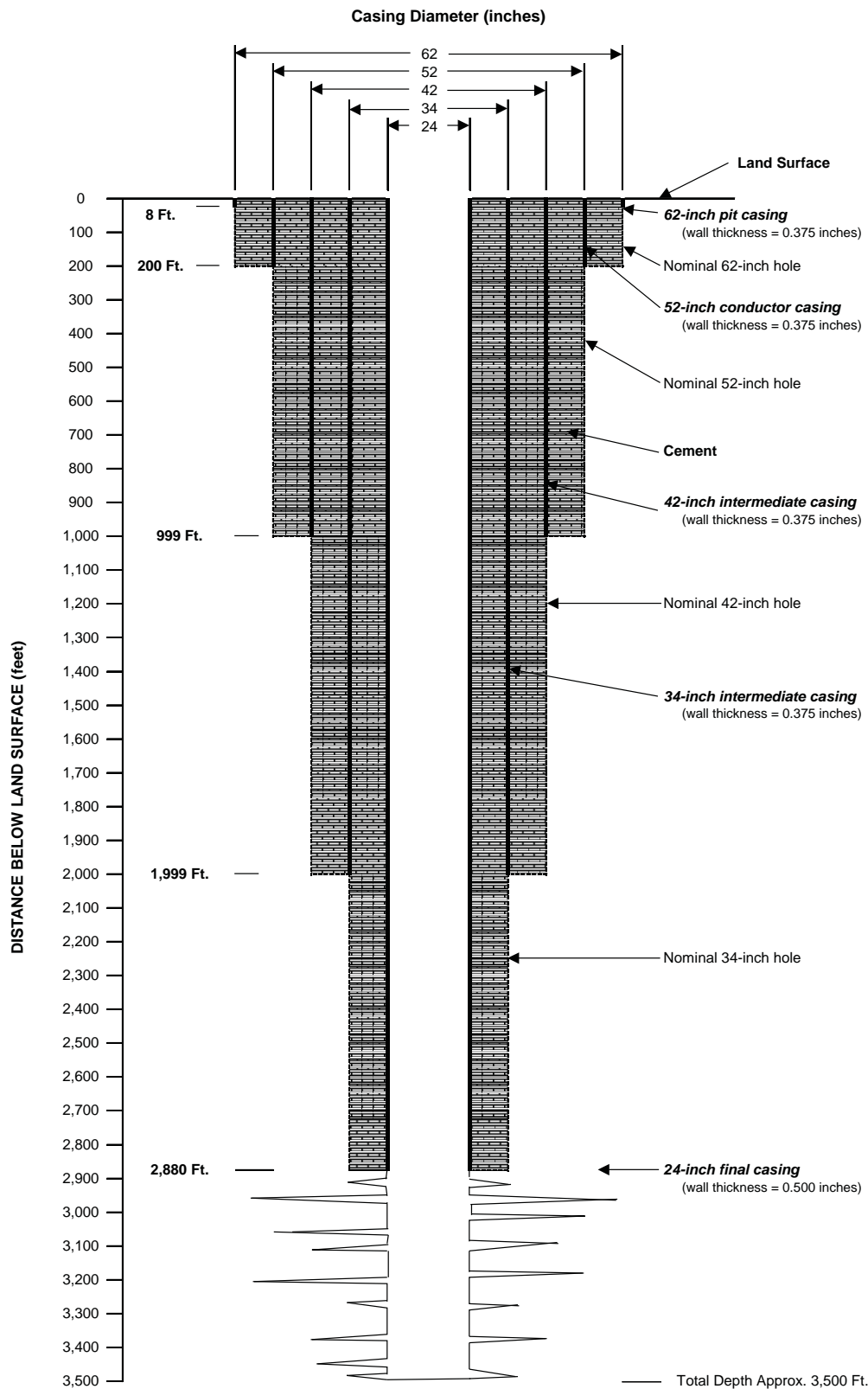
4321-072R1.ai



CITY OF HOLLYWOOD EFFLUENT DISPOSAL SYSTEM  
SOUTHERN REGIONAL WWTP INJECTION WELLS

**PROJECT LOCATION MAP**

**FIGURE  
1**

**INJECTION WELL No. 1 (IW-1)**

City of Hollywood  
Southern Regional WWTP Injection Wells

**Hazen**

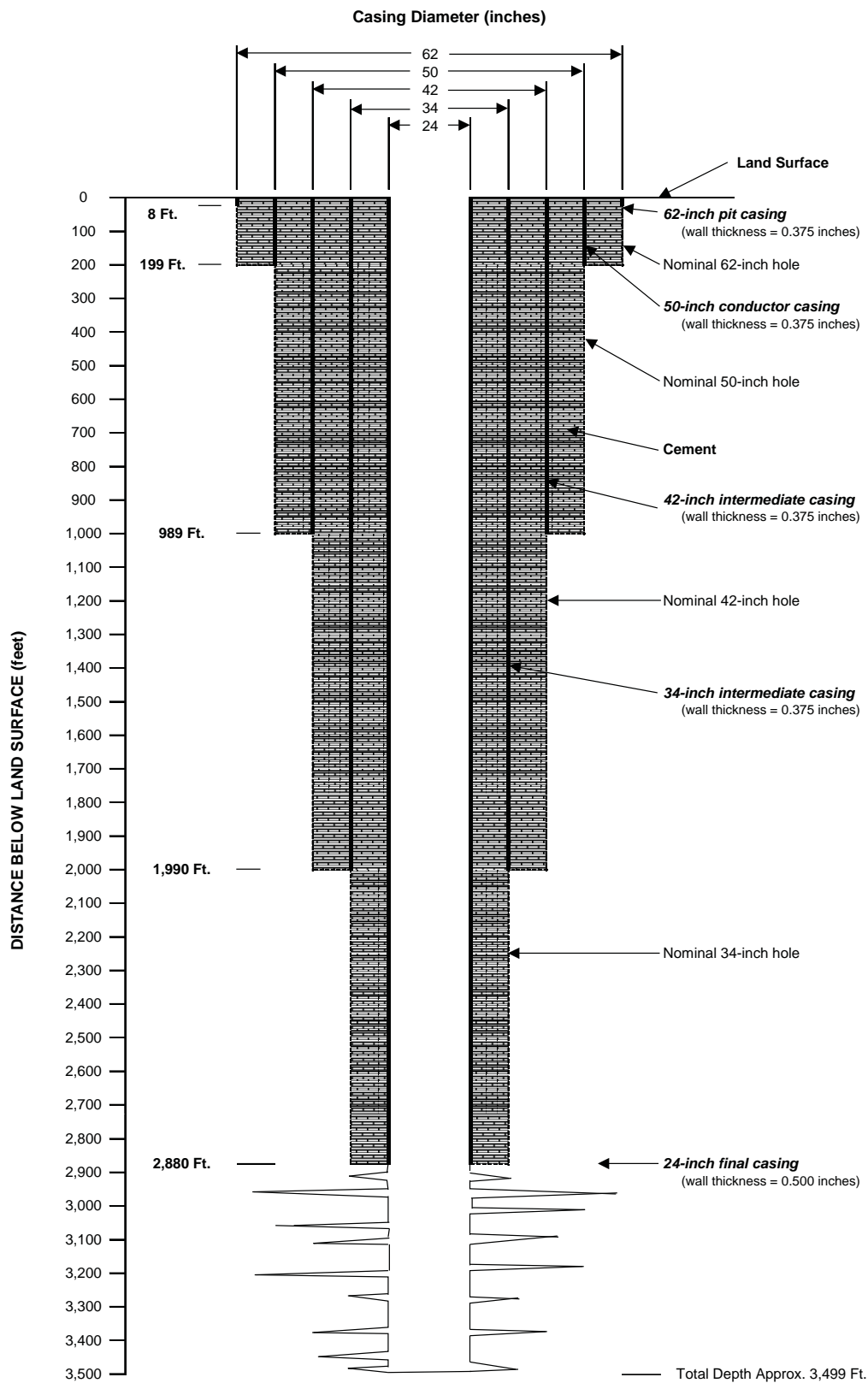


CITY OF HOLLYWOOD EFFLUENT DISPOSAL SYSTEM  
SOUTHERN REGIONAL WWTP INJECTION WELLS

**Injection Well No. 1 As-Built Well Profile**

**FIGURE**

**2**

**INJECTION WELL No. 2 (IW-2)**

City of Hollywood  
Southern Regional WWTP Injection Wells

**Hazen**



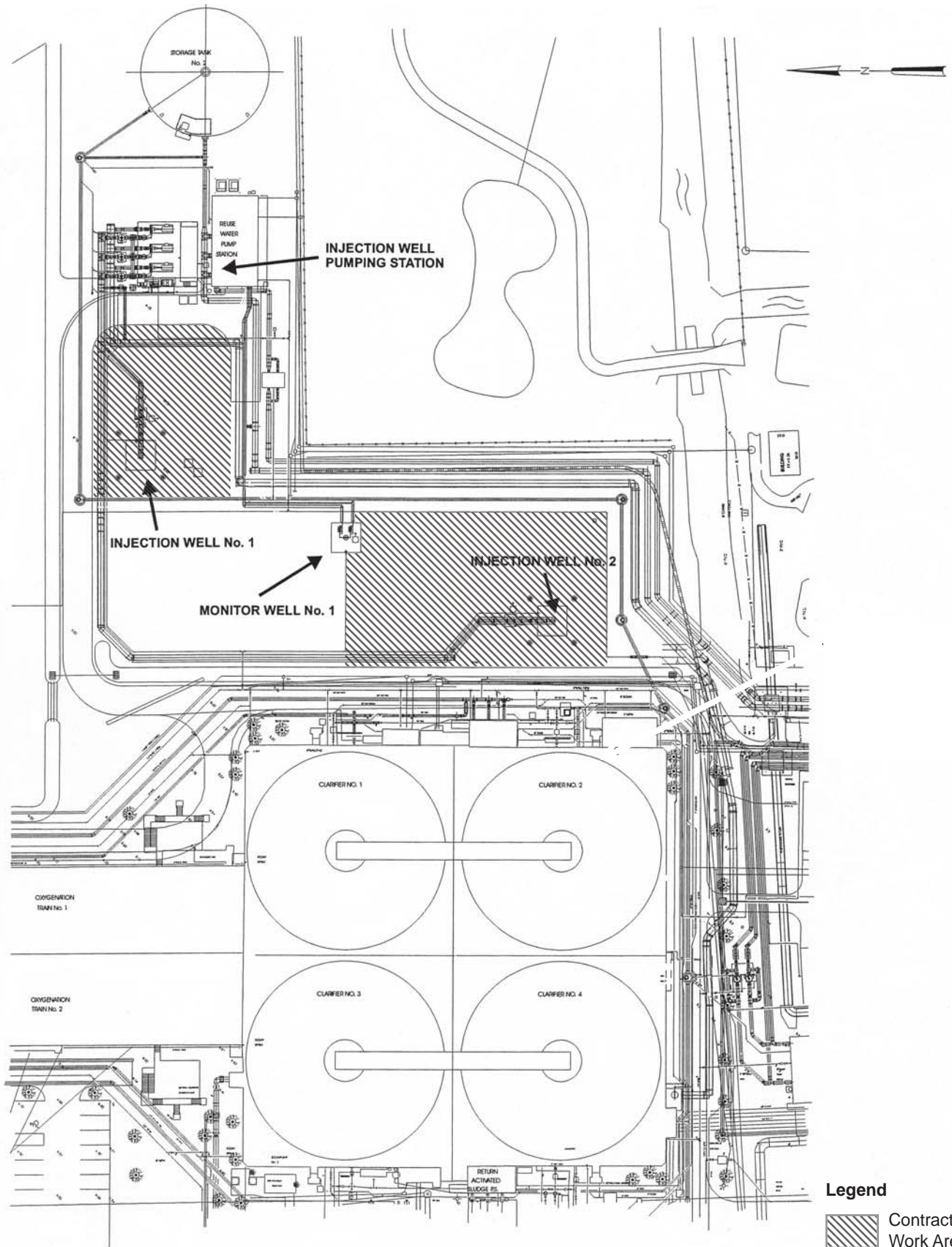
CITY OF HOLLYWOOD EFFLUENT DISPOSAL SYSTEM  
SOUTHERN REGIONAL WWTP INJECTION WELLS

**Injection Well No. 2 As-Built Well Profile**

**FIGURE**

**3**

4321-072R1.ai



Legend

 Contractor Work Area

**Hazen**



CITY OF HOLLYWOOD EFFLUENT DISPOSAL SYSTEM  
SOUTHERN REGIONAL WWTP INJECTION WELLS

**Injection Well Nos. 1 & 2 Site Plan**

**FIGURE**

**4**

## **APPENDIX**





City of Hollywood, Florida  
**FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION**

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Rick Scott  
Governor  
Bldg 4714-22-OT

Carlos Lopez-Cantera  
Lt. Governor

Noah Valenstein  
Secretary

**SENT VIA ELECTRONIC MAIL:**

In the Matter of an Application for Permit by:

February 15, 2018

Steve Joseph, P.E., Director  
City of Hollywood  
1621 N. 14<sup>th</sup> Avenue  
Hollywood, Florida 33022  
[sjoseph@hollywoodfl.org](mailto:sjoseph@hollywoodfl.org)

Broward County  
UIC Permit Number [156419-006-007-UO/1M](#)  
WACS ID [53391](#)  
Class I Injection Well System  
Operation Permit, Southern Regional WWTP, IW-1  
& IW-2

**NOTICE OF PERMIT**

Enclosed is Permit Number 156419-006-007-UO/1M to operate: A non-hazardous Injection Well System, consisting of two (2) Class I injection wells (IW-1 and IW-2), with twenty-four inch (24" OD) diameter steel casing set to 2,880 feet below land surface (bls) and a total depth of approximately 3,500 feet bls.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, [agency\\_cleck@dep.state.fl.us](mailto:agency_cleck@dep.state.fl.us); and by filing a copy of the Notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

**PERMITTEE:** Steve Joseph, P.E., Director  
City of Hollywood  
Hollywood Southern Regional WWTP

City of Hollywood, Florida

**Permit Number:** 156419-006-007-UO/1M  
**WACS ID:** 53391  
**Date:** February 15, 2018

Bid IFB-4714-22-OT

## EXECUTING AND CLERKING:

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



---

Joseph Haberfeld, P.G.  
Aquifer Protection Program  
Division of Water Resource Management

## CERTIFICATE OF SERVICE

The undersigned duly designated clerk hereby certifies that this NOTICE OF PERMIT and all copies were sent on the filing date Thursday, February 15, 2018 to the following listed persons:

Joseph Haberfeld, FDEP/TLH	<a href="mailto:joe.haberfeld@dep.state.fl.us">joe.haberfeld@dep.state.fl.us</a>
Tracy Woods, FDEP/TLH	<a href="mailto:tracy.woods@dep.state.fl.us">tracy.woods@dep.state.fl.us</a>
Douglas Thornton, FDEP/TLH	<a href="mailto:douglas.thornton@dep.state.fl.us">douglas.thornton@dep.state.fl.us</a>
Len Fishkin, FDEP/SED	<a href="mailto:len.fishkin@dep.state.fl.us">len.fishkin@dep.state.fl.us</a>
Michael Wengrenovich, Hazen and Sawyer, Inc	<a href="mailto:mwengrenovich@hazenandsawyer.com">mwengrenovich@hazenandsawyer.com</a>
Cathleen McCarty, FDEP/TLH	<a href="mailto:cathleen.mccarty@dep.state.fl.us">cathleen.mccarty@dep.state.fl.us</a>
Hope Cates, FDEP/TLH	<a href="mailto:hope.cates@dep.state.fl.us">hope.cates@dep.state.fl.us</a>
Hayley Hood, FDEP/TLH	<a href="mailto:hayley.hood@dep.state.fl.us">hayley.hood@dep.state.fl.us</a>
Jason Meadows, USEPA/ATL	<a href="mailto:meadows.jasonb@epa.gov">meadows.jasonb@epa.gov</a>

## FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section.120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged



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Clerk

February 15, 2018

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Date



## FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Rick Scott  
Governor

Carlos Lopez-Cantera  
Lt. Governor

Noah Valenstein  
Secretary

### Underground Injection Control Class I Injection Well System Operation Permit

**Permittee:**

Steve Joseph, P.E., Director  
City of Hollywood  
1621 N. 14<sup>th</sup> Avenue  
Hollywood, Florida 33022  
[sjoseph@hollywoodfl.org](mailto:sjoseph@hollywoodfl.org)

**Permit/Certification**

Permit Number: [156419-006-007-UO/1M](#)  
WACS ID: [53391](#)  
Date of Issuance: February 15, 2018  
Date of Expiration: February 15, 2023  
Permit Processor: Douglas Thornton

**Facility**

Hollywood Southern Regional Wastewater  
Treatment Plant  
1621 N. 14<sup>th</sup> Avenue  
Hollywood, Florida 33022

**Location**

County: Broward  
Latitude: 26° 01' 38" N  
Longitude: 80° 07' 55" W

**Project:** Class I Injection Well System IW-1 and IW-2.

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and the rules adopted thereunder. The above-named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows.

**TO OPERATE:** A non-hazardous Injection Well System, consisting of two (2) Class I injection wells (IW-1 and IW-2), with twenty-four inch (24" OD) diameter steel casing set to 2,880 feet below land surface (bls) and a total depth of approximately 3,500 feet bls. The injection wells are used for the disposal of secondary treated municipal effluent from the Hollywood Southern Regional Wastewater Treatment Plant. The maximum permitted flow for each injection well is 18.6 million gallons per day (MGD). The dual-zone monitor well, MW-1, monitors the upper zone from 1,250 to 1,300 feet bls and the lower zone from 1,750 to 1,800 feet bls.

**IN ACCORDANCE WITH:** The Application to Operate DEP Form No. 62-528.900(1) received, July 27, 2017 and supporting information submitted to this agency.

**LOCATION:** Hollywood Southern Regional Wastewater Treatment Plant, 1621 N. 14<sup>th</sup> Avenue, Hollywood, Florida 33022, in the county of Broward.



**PERMITTEE:** Steve Joseph, P.E., Director  
City of Hollywood  
Hollywood Southern Regional WWTP

**Permit Number:** 156419-006-007-UO/1M  
**WACS ID:** 53391  
**Date:** February 15, 2018

The injection and monitoring wells at this facility are designated as follows:

**Injection Wells:**

<i>Well Name</i>	<i>WACS Effluent Testsite ID</i>	<i>Total Well Depth *</i>	<i>Casing Diameter (inches)</i>	<i>Casing or Tubing Type</i>	<i>Casing Depth or Interval*</i>
IW-1 156419-006-UO/1M	9173	3500	52	Steel	200
			42	Steel	999
			34	Steel	1999
			24	Steel	2880
			Open hole		2880 – 3500
IW-2 156419-007-UO/1M	9174	3499	50	Steel	200
			42	Steel	989
			34	Steel	1990
			24	Steel	2880
			Open hole		2880 – 3499

\*Feet Below Land Surface

**Monitoring Well System:**

<i>Well Name</i>	<i>WACS Monitoring Well Testsite ID</i>	<i>Monitoring Zone</i>	<i>Casing Diameter (inches)</i>	<i>Casing Type</i>	<i>Casing Depth *</i>	<i>Monitoring Depth*</i>
MW-1			24	Steel	200	
			16	Steel	1250	
	21301A	Upper Zone				1250 – 1300
	21301B	Lower Zone	6.625	FRP	1750	1750 – 1800

\*Feet Below Land Surface

**SUBJECT TO:** Specific Conditions I-VI and General Conditions 1-24.

**Specific Conditions**

**I. OPERATING REQUIREMENTS**

**A. General**

- Only non-hazardous injectate as described in this permit and purge water from the on-site monitoring wells (associated with the injection well system) may be discharged into the injection wells. [62-528.400(1)]

**PERMITTEE:** Steve Joseph, P.E., Director  
City of Hollywood  
Hollywood Southern Regional WWTP

City of Hollywood, Florida

**Permit Number:** 156419-006-007-UO/1M  
**WACS ID:** 53391  
**Date:** February 15, 2018

Bid IFB-4714-22-OT

2. The injection pressure at the wellhead shall be monitored and controlled at all times to ensure the maximum pressure at the wellhead does not exceed two-thirds of the most recent tested pressure on the final casing, final cemented tubing, or casing/tubing annular space, as applicable. The following table outlines the wellhead pressures applicable at the time of permit issuance:

Well	Maximum Permitted Wellhead Pressure (psi)	Most Recent tested wellhead pressure at the time of issuance of this permit (psi)
IW-1	129	194
IW-2	121	182

At such time as the next pressure test is performed and a report for that test is submitted to and accepted by the Department, the maximum wellhead pressure allowable will become two-thirds of the tested pressure from the successive test.

[62-528.300(6)(e)]

3. The flow to the injection wells at each wellhead shall be monitored and controlled at all times to ensure the maximum fluid velocity down the well during operation does not exceed the respective flow rate indicated below, and shall not exceed 10 feet per second except during planned testing, maintenance, or emergency conditions in which case the flow rate shall not exceed 12 feet per second [62-528.415(1)(f)]:

Well	Peak Flow Rate	
	GPM	MGD
IW-1	12916	18.6
IW-2	12916	18.6

4. No underground injection is allowed that causes or allows movement of fluid into an underground source of drinking water if such fluid movement may cause a violation of any Primary Drinking Water Standard or may otherwise affect the health of persons. [62-528.440(2)(c)]

5. All equipment of this facility shall be operated and maintained so as to function consistently as designed in removing pollutants. The wastewater stream shall remain non-hazardous at all times. [62-528.307(3)(b) and 62-528.400(1)]

6. In the event a well must be plugged or abandoned, the permittee shall obtain a permit from the Department as required by Chapter 62-528, Florida Administrative Code (F.A.C.). When no longer used for their intended purpose, these wells shall be properly plugged and abandoned. Within 180 days of well abandonment, the permittee shall submit to the Department the proposed plugging method, pursuant to Rule 62-528.460, F.A.C. [62-528.460(1) and 62-528.435(6)]

7. In accordance with rules 62-4.090 and 62-528.455(3)(a), F.A.C., the permittee shall submit an application for permit renewal at least 60 days prior to expiration of this permit. [62-528.307(3)(a)]



**PERMITTEE:** Steve Joseph, P.E., Director  
City of Hollywood  
Hollywood Southern Regional WWTP

City of Hollywood, Florida

**Permit Number:** 156419-006-007-UO/1M  
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**Date:** February 15, 2018

Bid IFB-4714-22-OT

8. Hurricane Preparedness: Preparations to be made by permittee upon issuance of a "Hurricane Watch" by the National Weather Service include, but are not limited to:
  - a. Secure all onsite salt and other stockpiled additive materials to prevent surface and/or ground water contamination.
  - b. Properly secure equipment to prevent damage to well(s) and onsite treatment process equipment.

[62-528.307(1)(f)]

## **B. Mechanical Integrity and Mechanical Integrity Testing (MIT)**

1. Mechanical Integrity.
  - a. The permittee shall maintain the mechanical integrity of the well at all times.
  - b. If the Department determines that the injection well lacks mechanical integrity, written notice shall be given to the permittee.
  - c. Within 48 hours of receiving written notice that the well lacks mechanical integrity, unless the Department requires immediate cessation of injection, the permittee shall cease injection into the well unless the Department allows continued injection pursuant to subparagraph d. below.
  - d. The Department shall allow the permittee to continue operation of a well that lacks mechanical integrity if the permittee has made a satisfactory demonstration that fluid movement into or between underground sources of drinking water is not occurring.

[62-528.307(3)(e)]

2. The permittee shall demonstrate mechanical integrity at least once every five years during the life of each injection well. In the event operational or other data indicate a possible loss of integrity in an injection well, the mechanical integrity and other testing may be required at less than a five-year interval. For each injection well, the mechanical integrity testing program shall include: TV survey, pressure test, radioactive tracer survey (RTS), and temperature log. Mechanical integrity testing shall be run and completed prior to the following dates:

Five-Year MIT	
Well Name	Required Completion Date
IW-1	August 21, 2017
IW-2	August 31, 2017

[62-528.300(6)(b)2, 62-528.300(6)(c), and 62-528.425(1)(d)]

3. A plan describing the mechanical integrity procedures shall be submitted to the Department's Tallahassee and Southeast District offices for approval at least 90 days prior to the required completion date noted above. [62-528.307(1)(m)4]

4. The Department's Southeast District office must be notified a minimum of seventy-two (72) hours prior to all testing for mechanical integrity on the injection wells. The testing procedure must be approved by the Department before testing begins. Any change in the approved testing procedure must be approved by the Department before testing begins. All testing must be initiated during daylight hours, Monday through Friday other than State holidays, unless approval has been given by the Department. An evaluation of all test results must be submitted with all test data. *[62-528.300(6)(f)]*
5. Pursuant to Rule 62-528.430(2)(b)2.a., F.A.C., the final report for the demonstration of mechanical integrity for the injection wells shall be submitted to the Department's Tallahassee office for review and approval within three months of the completion date for mechanical integrity testing. In addition, a copy of the cover letter for the MIT results shall be sent to the U.S. Environmental Protection Agency, Region 4, UIC program, 61 Forsyth St. SW, Atlanta, GA 30303-8909, or R4gwaic@epa.gov. The final MIT report shall be prepared by a registered/certified Professional Engineer and/or Professional Geologist (as appropriate), and it shall address all tests noted in specific condition I.B.2. (including procedures followed, results, and interpretations), and shall include a tabular presentation/graphical evaluation of monitoring well data over the previous 5-year period. For wells with a fluid-filled annulus, the report shall also include a tabular presentation/graphical evaluation of annular pressure data over the previous 5-year period, with the addition or removal of pressure and annular fluid noted. If the well has failed any of the specified tests, or the annular pressure system exhibits leaks, the MIT report shall include a plan for corrective action for all discovered deficiencies. *[62-528.440(5)(b)]*

### **C. Surface Equipment**

1. The integrity of the monitoring zone sampling systems shall be maintained at all times. Sampling lines shall be clearly and unambiguously identified by monitoring zone at the point at which samples are drawn. All reasonable and prudent precautions shall be taken to ensure that samples are properly identified by monitoring zone and that samples obtained are representative of those zones. Sampling lines and equipment shall be kept free of contamination with independent discharges and no interconnections with any other lines. *[62-528.307(1)(f) and 62-528.307(3)(b)]*
2. The surface equipment for each injection well disposing of domestic (municipal) effluent shall maintain compliance with Chapter 62-600.540(4), F.A.C., for water hammer control, screening, access for logging and testing, and reliability and flexibility in the event of damage to the well and effluent piping. *[62-600.540(4), 62-528.307(1)(f), and 62-528.307(3)(b)]*
3. Injection wells not disposing of domestic (municipal) effluent shall maintain compliance with Chapter 62-528.450(2)(j), F.A.C., for water hammer control, as well as access for logging and testing, and reliability and flexibility in the event of damage to the well and effluent piping. *[62-528.450(2)(j), 62-528.307(1)(f), and 62-528.307(3)(b)]*



**PERMITTEE:** Steve Joseph, P.E., Director  
City of Hollywood  
Hollywood Southern Regional WWTP

**Permit Number:** 156419-006-007-UO/1M  
**WACS ID:** 53391  
**Date:** February 15, 2018

4. The surface equipment and piping for the injection and monitoring wells shall be kept free of corrosion at all times. *[62-528.307(1)(f) and 62-528.307(3)(b)]*
5. Spillage onto the injection well pad(s) during construction activities, and any waters spilled during mechanical integrity testing, maintenance, testing, or repairs to the system(s) shall be contained on the pad(s) and directed to a sump which in turn discharges to the pumping station wet well, or via other approved means to the injection well system, or by another method approved by the Department.  
*[62-528.307(1)(f) and 62-528.307(3)(b)]*
6. The injection well pads are not, unless specific approval is obtained from the Department, to be used for storage of any material or equipment at any time.  
*[62-528.307(1)(f) and 62-528.307(3)(b)]*
7. The surficial aquifer monitoring wells adjacent to the injection and monitoring wells shall be secured, maintained, and retained in service for subsequent sampling that may be needed (i.e., should there be an accidental discharge to the surficial aquifer); alternatively, the facility may submit a request to the Department for cessation of sampling followed by capping, or plugging and abandonment of these wells.  
*[62-528.307(3)(b) and 62-520.600(6)(k)]*

## **II. QUALITY ASSURANCE/QUALITY CONTROL**

1. The permittee shall ensure that the operation of this injection well system shall be as described in the application and supporting documents. Any proposed modifications to the permit, construction procedures, testing procedures, completion procedures, operation procedures, or any additional work not described in the application or supporting documents shall be submitted in writing to the Tallahassee office of the Aquifer Protection Program for review and clearance prior to implementation. Changes of negligible impact to the environment and staff time will be reviewed by the program manager, cleared when appropriate and incorporated into this permit. Changes or modifications other than those described above will require submission of a completed application and appropriate processing fee as per Rule 62-4.050, F.A.C.  
*[62-528.100, 62-4.050]*
2. Proper operation and maintenance include effective performance and appropriate quality assurance procedures; adequate operator staffing and training; and adequate laboratory and process controls. *[62-528.307(3)(b)]*



**PERMITTEE:** Steve Joseph, P.E., Director  
City of Hollywood  
Hollywood Southern Regional WWTP

**Permit Number:** 156419-006-007-UO/1M  
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**Date:** February 15, 2018

3. All water quality samples required by this permit shall be collected in accordance with the appropriate Department Standard Operation Procedures (SOP), pursuant to Chapter 62-160, F.A.C., Field Procedures. A certified laboratory shall conduct the analytical work, as provided by Chapter 62-160, F.A.C., Laboratory Certification. Department approved test methods shall be utilized, unless otherwise stated in this permit. All calibration procedures for field testing and laboratory equipment shall follow manufacturer's instrumentation manuals and satisfy the requirements of the Department SOPs. A listing of the SOPs pertaining to field and laboratory activities is available at the FDEP website at: <http://www.dep.state.fl.us/water/sas/sop/sops.htm>.  
[62-4.246, 62-160]
4. All indicating, recording and totalizing devices associated with the injection well system shall be maintained in good operating condition and calibrated annually at a minimum. The pressure gauges, flow meter, and chart recorders shall be calibrated using standard engineering methods. [62-528.307(1)(f) and 62-528.307(3)(b)]
5. All reports submitted to satisfy the requirements of this permit shall be signed by a person authorized under Rule 62-528.340(1), F.A.C., or a duly authorized representative of that person under Rule 62-528.340(2), F.A.C. All reports required by this permit which are submitted to the Department shall contain the following certification as required by Rule 62-528.340(4), F.A.C.:  
  
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.  
[62-528.340(1), (2), and (4)]
6. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved by the Southeast District as being more representative of ground water conditions. [62 520.310(5)]

**PERMITTEE:** Steve Joseph, P.E., Director  
City of Hollywood  
Hollywood Southern Regional WWTP

City of Hollywood, Florida

**Permit Number:** 156419-006-007-UO/1M  
**WACS ID:** 53391  
**Date:** February 15, 2018

Bid IFB-4714-22-OT

### III. TESTING AND REPORTING REQUIREMENTS

#### A. General

1. The permittee shall submit monthly to the Department the results of all injection well and monitoring well data required by this permit no later than the last day of the month immediately following the month of record. The report shall include:
  - a. A cover page summarizing the current status of all monthly activities, including, but not limited to, the certification and signature required in condition II.5.
  - b. Operational and water quality data in a tabular format. The following identifying information must be included on each data sheet:
    - i. Facility Name
    - ii. Well Name
    - iii. UIC Permit Number
    - iv. WACS Facility ID
    - v. WACS Testsite ID number (on appropriate data sheet) as provided on the Injection Well and Monitoring Well tables on page 2 of this permit.
  - c. Laboratory pages and supporting documentation including form FD 9000-24, Groundwater Sampling Log, for the purging of each monitor well.
2. The report may be sent via electronic mail in Adobe™ (.pdf) format to the following Program e-mail addresses:

Southeast District

SED\_UIC@dep.state.fl.us

Tallahassee - UIC Program

TAL\_UIC@dep.state.fl.us

If a paper copy of the report is submitted, it should be sent to Department staff at the following addresses:

Southeast District

3301 Gun Club Road, MSC 7210-1

West Palm Beach, Florida 33406

Tallahassee - UIC Program

2600 Blair Stone Road, MS 3530

Tallahassee, Florida, 32399-2400

[62-528.307(3)(d)]

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Hollywood Southern Regional WWTP

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## B. Monitoring

1. The injection system shall be monitored in accordance with Rules 62-528.425(1)(g) and 62-528.430(2), F.A.C. The following injection well performance data and monitor zone data shall be recorded and reported in the Monthly Operating Report (MOR) as indicated below. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [62-528.307(3)(d) and 528.430(2)]

PARAMETER	UNIT	RECORDING FREQUENCY OR SAMPLING METHOD	FREQUENCY OF ANALYSES		
			IW-1 9173	IW-2 9174	MW-1 21301A & 21301B
Injection Pressure, max.	psi	continuous	D/M <sup>a</sup>	D/M <sup>a</sup>	
Injection Pressure, min.	psi	continuous	D/M <sup>a</sup>	D/M <sup>a</sup>	
Injection Pressure, avg.	psi	continuous	D/M <sup>a</sup>	D/M <sup>a</sup>	
Flow Rate, max.	gpm	continuous	D/M <sup>a</sup>	D/M <sup>a</sup>	
Flow Rate, min.	gpm	continuous	D/M <sup>a</sup>	D/M <sup>a</sup>	
Flow Rate, avg.	gpm	continuous	D/M <sup>a</sup>	D/M <sup>a</sup>	
Volume Injected Each Well	mg	daily/monthly	D/M	D/M	
Total Volume Injected	mg	daily/monthly	D/M	D/M	
Water Level or Pressure max.	ft NAVD or psi	continuous			D/M <sup>a</sup>
Water Level or Pressure min.	ft NAVD or psi	continuous			D/M <sup>a</sup>
Water Level or Pressure avg.	ft NAVD or psi	continuous			D/M <sup>a</sup>
pH <sup>b</sup>	std. units	grab			M
Specific Conductance <sup>b</sup>	µmhos/cm	grab			M
Temperature (field) <sup>b</sup>	°C	grab			M
Ammonia (as N)	mg/L	grab	M		M
Total Organic Carbon	mg/L	grab	M		M
Chloride	mg/L	grab			M
Nitrate (as N)	mg/L	grab	M		
Sodium	mg/L	grab			M
Sulfate	mg/L	grab			M
Total Dissolved Solids	mg/L	grab			M
Total Kjeldahl Nitrogen	mg/L	grab	M		M

See injection well and monitoring well tables at beginning of permit for more information.

D – daily; M – monthly

<sup>a</sup> – Operational data reporting for flows, pressures and water levels: daily max, min and average from continuous reporting; monthly max, min and average (calculated from daily averages).

<sup>b</sup> – Field samples

One sample to be taken for the injected water each sampling period.



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2. A specific injectivity test shall be performed quarterly on the injection well as required by Rule 62-528.430 (2) (b)l.b., F.A.C. Pursuant to Rule 62-528.430(2)(d), F.A.C, the specific injectivity test shall be performed with the pumping rate to the well set at a predetermined level and reported as the specific injectivity index (gallons per minute/specific pressure). The pumping rate to be used shall be based on the expected flow, the design of the pump types, and the type of pump control used. As part of this test, the well shall be shut-in for a period of time necessary to conduct a valid observation of pressure fall-off. The specific injectivity and pressure fall-off test data shall be submitted along with the monitoring results of the injection and monitoring well data. *[62-528.430(2) (b) and (d)]*
3. Monitor well purging and field stabilization parameter measurement is required prior to the collection of laboratory samples for the Monthly Operating Reports (MORs). The facility shall conduct the monitor well sampling following the monitor well sampling protocols taken from FS 2200-Groundwater Sampling in the DEP-SOP-001/01 Field Sampling Procedures Manual. The following protocol for UIC monitor wells is based on this standard and the facility shall follow this purging protocol. The results of the purging techniques and field stabilization parameters shall be provided on DEP Form FD 9000-24 or a similar alternative approved by DEP, and the completed forms shall be submitted to DEP with the MORs.
  - a. Calculate the volume of water in the well casing (or sample pipe if installed), and the monitoring interval. For dual zone monitor wells calculate the upper monitor zone volume with allowance for reduced volume due to the hollow cylinder created by the lower zone tubing. Purge until the water level has stabilized (well recovery rate equals the purge rate), purging a minimum of one well volume, and then collect the first set of stabilization parameters.
  - b. Thereafter, collect stabilization parameters after every  $\frac{1}{4}$  well volume beyond the initial one volume.
  - c. Purging shall be complete when three consecutive readings of the parameters listed below are within the following ranges<sup>[1]</sup> **and** a minimum of 1.5 well casing volumes of fluid since the beginning of purging have been evacuated from the monitoring well:
    - pH  $\pm$  0.2 Standard Units
    - Specific Conductance  $\pm$  5.0% of reading
    - Temperature  $\pm$  0.2% C
    - Dissolved Oxygen  $\leq$  20% Saturation
    - Turbidity  $\leq$  20 NTU
  - d. If necessary, continue to take the above readings every additional  $\frac{1}{4}$  well volume until three consecutive readings meet the above criteria.

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<sup>[1]</sup> Provided dissolved oxygen in the groundwater of the zone being monitored is  $\leq$  20% of saturation for the measured temperature and turbidity is  $\leq$  20 NTUs. This assumption holds true for groundwater in most zones of the Floridan aquifer.

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- e. Typical field conditions may not allow the temperature parameter to be met. The sampling team leader may decide whether to collect a sample if a parameter has not been met (DEP SOP FS2212 Section 3.6). Documentation as to why the sample was collected without meeting a field parameter must be recorded in the groundwater sampling log.
- f. If three consecutive  $\frac{1}{4}$  well volume readings have not reached the stabilization criteria listed above by the time the fifth well volume has been reached, the monitoring well sample shall be taken, and document the reason(s) in the groundwater sampling log.
- g. If a sampling pipe is used for purging, the sampling pipe volume will substitute for the well casing volume.

The Department will consider an alternate purging method meeting monitor well sampling protocol in FS 2200-Groundwater Sampling in the DEP-SOP-001/01 Field Sampling Procedures Manual in the case where the above procedure causes a hardship to the facility. The permittee shall request an alternate method and receive written Department approval before implementing it. [62-160.210(1) and 62-528.430(2)]

4. The flow from the monitoring zones during well evacuation and sampling shall not be discharged to surface waters or aquifers containing an underground source of drinking water. Waters purged from monitoring wells in preparation for sampling shall be diverted to the injection well head via the pad drainage system, wet well, or treatment plant. [62-4.030, 62-620.320]

#### IV. ABNORMAL EVENTS

1. In the event the permittee is temporarily unable to comply with any of the conditions of a permit due to breakdown of equipment, power outages or destruction by hazard of fire, wind, or by other cause, the permittee of the facility shall notify the Southeast District office. [62-528.415(4)(a)]
2. Notification shall be made in person, by telephone, or by electronic mail (e-mail) within 24 hours of breakdown or malfunction to the Southeast District office. [62-528.307(1)(x)]
3. A written report of any noncompliance referenced in Specific Condition (1) above shall be submitted to the Southeast District office and the Tallahassee office within five days after its occurrence. The report shall describe the nature and cause of the breakdown or malfunction, the steps being taken or planned to be taken to correct the problem and prevent its reoccurrence, emergency procedures in use pending correction of the problem, and the time when the facility will again be operating in accordance with permit conditions. [62-528.415(4)(b)]

#### V. EMERGENCY DISPOSAL

1. All applicable federal, state and local permits must be in place to allow for any alternate discharges due to emergency or planned outage conditions. [62-528.415(4)(c)1]



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2. Any proposed changes in emergency disposal methods shall be submitted to the Southeast District office and the Tallahassee office for review and approval prior to implementation. [62-528.415(4)(c)]
3. The emergency disposal method must be fully operational in the event of planned or emergency outages of the injection well system. [62-528.415(4)(c)2]

## **VI. FINANCIAL RESPONSIBILITY**

1. The permittee shall maintain at all times the financial resources necessary to close, plug, and abandon the injection and associated monitoring wells. [62-528.435(9)]
2. The permittee shall annually review the cost estimate for plugging and abandonment. Upon the occurrence of the plugging and abandonment cost estimate exceeding, by 10 percent or more on an annual basis, the cost estimate upon which the current financial responsibility is based, the permittee shall submit to the Department certified financial documentation necessary to amend, renew, or otherwise replace the existing financial responsibility pursuant to Rule 62-528.435(9)(b), F.A.C. and the conditions of this permit. Documentation that the annual updates are being conducted shall be submitted thirty (30) months after the date of permit issuance. [62-528.435(9)(b)]
3. In the event that the mechanism used to demonstrate financial responsibility should become insufficient or invalid for any reason, the permittee shall notify the Department's Tallahassee office in writing within 14 days of such insufficiency or invalidation. The permittee shall within 90 days of said notification submit to the Department's Tallahassee office for approval new financial documentation certifying either the remedy of current financial insufficiency or resolution of the financial instrument invalidation in order to comply with Rule 62-528.435(9)(b), F.A.C. and the conditions of this permit. [62-528.435(9)(b)]

### **General Conditions**

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are "permit conditions" and are binding and enforceable pursuant to section 403.141, F.S. [62-528.307(1)(a)]
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action. [62-528.307(1)(b)]
3. As provided in subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit. [62-528.307(1)(c)]

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4. This permit conveys no title to land, water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-528.307(1)(d)]
5. This permit does not relieve the permittee from liability for harm to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties there from; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. [62-528.307(1)(e)]
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, or are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules. [62-528.307(1)(f)]
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - a. Have access to and copy any records that must be kept under conditions of this permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
  - d. Reasonable time will depend on the nature of the concern being investigated.[62-528.307(1)(g)]
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of noncompliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent the recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.[62-528.307(1)(h)]
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department



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as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

*[62-528.307(1)(i)]*

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. *[62-528.307(1)(j)]*
11. This permit is transferable only upon Department approval in accordance with rules 62-4.120 and 62-528.350, F.A.C. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.  
*[62-528.307(1)(k)]*
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.  
*[62-528.307(1)(l)]*
13. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records shall be extended automatically unless the Department determines that the records are no longer required.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) the date, exact place, and time of sampling or measurements;
    - 2) the person responsible for performing the sampling or measurements;
    - 3) the dates analyses were performed;
    - 4) the person responsible for performing the analyses;
    - 5) the analytical techniques or methods used;
    - 6) the results of such analyses.
  - d. The permittee shall furnish to the Department, within the time requested in writing, any information which the Department requests to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
  - e. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

*[62-528.307(1)(m)]*



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14. All applications, reports, or information required by the Department shall be certified as being true, accurate, and complete. [62-528.307(1)(n)]
15. Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each scheduled date. [62-528.307(1)(o)]
16. Any permit noncompliance constitutes a violation of the Safe Drinking Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [62-528.307(1)(p)]
17. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-528.307(1)(q)]
18. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit. [62-528.307(1)(r)]
19. This permit may be modified, revoked and reissued, or terminated for cause, as provided in 40 C.F.R. sections 144.39(a), 144.40(a), and 144.41 (1998). The filing of a request by the permittee for a permit modification, revocation or reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. [62-528.307(1)(s)]
20. The permittee shall retain all records of all monitoring information concerning the nature and composition of injected fluid until five years after completion of any plugging and abandonment procedures specified under rule 62-528.435, F.A.C. The permittee shall deliver the records to the Department office that issued the permit at the conclusion of the retention period unless the permittee elects to continue retention of the records. [62-528.307(1)(t)]
21. All reports and other submittals required to comply with this permit shall be signed by a person authorized under rules 62-528.340(1) or (2), F.A.C. All reports shall contain the certification required in rule 62-528.340(4), F.A.C. [62-528.307(1)(u)]
22. The permittee shall notify the Department as soon as possible of any planned physical alterations or additions to the permitted facility. In addition, prior approval is required for activities described in rule 62-528.410(1)(h). [62-528.307(1)(v)]
23. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or injection activity which may result in noncompliance with permit requirements. [62-528.307(1)(w)]

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24. The permittee shall report any noncompliance which may endanger health or the environment including:
- Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground source of drinking water; or
  - Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.

Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

[62-528.307(1)(x)]

Issued this 15<sup>th</sup> day of February 2018

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION



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Joseph Haberfeld, P.G.  
Aquifer Protection Program  
Division of Water Resource Management

SITE NAME:		SITE LOCATION:	
WELL NO:	SAMPLE ID:		DATE:

[illegible][illegible]

**pH:**  $\pm 0.2$  units **Temperature:**  $\pm 0.2$  °C **Specific Conductance:**  $\pm 5\%$  **Dissolved Oxygen:** all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) **Turbidity:** all readings  $< 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

## **Question and Answers for Bid #IFB-4714-22-OT - SRWWTP INJECTION WELLS 1 & 2 MECHANICAL**

### **Overall Bid Questions**

There are no questions associated with this bid.