



Invitation for Bids

IFB-347-25-JJ

**LARGE USER METER REPLACEMENT
24-7117**

**FOR THE
CITY OF HOLLYWOOD, FLORIDA**

IFB Issue Date:	September 24, 2025
Questions Due Date:	October 30, 2025
Submittal Due Date:	November 6, 2025, at 3 p.m. ET

CITY OF HOLLYWOOD
IFB-347-25-JJ
LARGE USER METER REPLACEMENT
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SECTION I – INTRODUCTION

1.1 **Purpose**

The City of Hollywood, Florida (City) is seeking bids from qualified and experienced firms, hereinafter referred to as the Contractor or Bidder, to provide the replacement of large user meters for the City, in accordance with the terms, conditions, and specifications contained in this solicitation. Responses to this solicitation are due by **November 6, 2025, by 3:00 PM EST**, and will be opened in a virtual public setting on **October 6, 2025, at <https://opengov.com>**

Submittals shall be received electronically through OpenGov.

Submittals shall be considered an offer on the part of the bidder/proposer, which offer shall be deemed accepted upon approval of the City, and in case of default, the City reserves the right to accept or reject any or all bids/proposals, to waive irregularities and technicalities, and request new bids/proposals. The City also reserves the right to award any resulting agreement as it deems will best serve the interests of the city.

1.2 **Pre-bid Conference and/or Site Visit (Mandatory)**

There will be a non-mandatory pre-bid conference scheduled for this solicitation. It is strongly suggested that all Contractors attend the pre-bid conference to receive information that may be critical to their understanding of this solicitation.

The non-mandatory pre-bid conference will be held on October 6, 2025, at 10:00 p.m., on <https://procurement.opengov.com/governments/954/projects/201233/sourcing>

Please keep in mind that site for improvements might not be available. It is the sole responsibility of the Contractor to become familiar with the scope of the City's requirements prior to submitting a bid. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the Bidder has familiarized themselves with the nature and extent of the work, equipment, materials, and labor required.

1.3 **OpenGov**

The City of Hollywood uses OpenGov (<https://procurement.opengov.com/portal/hollywoodfl>) to administer the competitive solicitation process, including but not limited to soliciting bids, issuing addenda, posting results and issuing notification of an intended decision.

The City shall not be responsible for a Bidders inability to submit a bid by the bid end date and time for any reason, including issues arising from the use of OpenGov.

1.4 **Point of Contact**

For information concerning procedures for responding to this solicitation, contact the Point of Contact within the Office of Procurement Services, Jean Joinville, Procurement Manager at jjoinville@hollywoodfl.org or by phone at (954) 921-3290, or Damaris Munoz, Procurement Assistant at dmunoz@hollywoodfl.org or by phone at 954-921-3222. Such contact is to be for clarification purposes only. All questions must be submitted in writing via OpenGov by October 30, 2025, by 5:00 PM EST in order to receive a response.

Project Manager: Donnelly Chin, Department of Public Utilities, email: dchin@hollywoodfl.org or by phone: (954) 921-3930.

For information concerning technical specifications, please utilize the question / answer feature provided by OpenGov at <https://procurement.opengov.com/portal/hollywoodfl>. Questions of a material nature must be received prior to the cut-off date specified in the solicitation schedule. Material changes, if any, to the scope of services or bidding procedures will only be transmitted by written addendum. (See addendum section of OpenGov Site). Bidders please note: No part of your bid can be submitted via FAX. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the Bidder has familiarized themselves with the nature and extent of the work, and the equipment, materials, and labor required. The entire bid response must be submitted in accordance with all specifications contained in this solicitation. The questions and answers submitted in OpenGov shall become part of any contract that is created from this solicitation.

It is the sole responsibility of the Bidder to ensure that their bid is submitted electronically through OpenGov at <https://procurement.opengov.com/portal/hollywoodfl>.

1.5 Cone of Silence

The City of Hollywood City Commission adopted Ordinance No. O-2007-05, which created Section 30.15(F) imposing a Cone of Silence for certain City purchases of goods and Services.

The Cone of Silence refers to limits on communications held between vendors and vendor's representatives and City elected officials, management and staff during the period in which a Formal Solicitation is open.

The Ordinance does allow potential vendors or vendor's representatives to communicate with designated employees for the limited purpose of seeking clarification or additional information. The names and contact information of those employees that may be contacted for clarification or additional information are included in the solicitation.

The Cone of Silence does not prohibit a vendor or vendor's representative from communicating verbally, or in writing with the City Manager, the City Manager's designee, the City Attorney or the City Attorney's designee on those procurement items to be considered by the City Commission.

The Cone of Silence does not prohibit a vendor or vendor's representative from making public presentations at a duly noticed pre-bid conference or duly noticed evaluation committee meeting or from communicating with the City Commission during a duly noticed public meeting.

The Cone of Silence shall be imposed when a formal competitive solicitation has been issued and 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.

To view the Cone of Silence, go to the City of Hollywood Code of Ordinance online, and view [Section 30.15F](#).

All communications regarding this bid should be sent in writing to the Procurement Services Division as identified in this bid.

END OF SECTION

SECTION II - SPECIAL TERMS AND CONDITIONS

2.1 Addenda, Changes, and Interpretations

It is the sole responsibility of each firm to notify the Point of Contact utilizing the question / answer feature provided by OpenGov and request modification or clarification of any ambiguity, conflict, discrepancy, omission or other error discovered in this competitive solicitation. Requests for clarification, modification, interpretation, or changes must be received prior to the Question and Answer (Q & A) Deadline. Requests received after this date may not be addressed. Questions and requests for information that would not materially affect the scope of services to be performed or the solicitation process will be answered within the question / answer feature provided by OpenGov and shall be for clarification purposes only. Material changes, if any, to the scope of services or the solicitation process will only be transmitted by official written addendum issued by the City and uploaded to OpenGov as a separate addendum to the solicitation. Under no circumstances shall an oral explanation given by any City official, officer, staff, or agent be binding upon the City and should be disregarded. All addenda are a part of the competitive solicitation documents and each firm will be bound by such addenda. It is the responsibility of each to read and comprehend all addenda issued.

2.2 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.

2.3 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.

2.4 Changes and Alterations

Bidder may change or withdraw a Bid at any time prior to Bid submission deadline; however, no oral modifications will be allowed. Modifications shall not be allowed following the Bid deadline.

2.5 Bidder's Costs

The City shall not be liable for any costs incurred by Bidders in responding to this solicitation.

2.6 Pricing/Delivery

All pricing must include delivery and installation and be quoted FOB: Destination, unless specified otherwise in Section III.

2.7 Price Validity

Prices provided in this solicitation shall be valid for at least One-Hundred and Twenty (120) days from time of solicitation opening unless otherwise extended and agreed upon by the City and Bidder.

2.8 No Exclusive Contract

Bidder agrees and understands that the contract shall not be construed as an exclusive arrangement and further agrees that the City may, at any time, secure similar or identical services from another vendor at the City's sole option.

2.9 Responsive

In order to be considered responsive to the solicitation, the firm's bid shall fully conform in all material respects to the solicitation and all of its requirements, including all form and substance.

2.10 Responsible

In order to be considered as a responsible firm, the firm shall be fully capable of meeting all of the requirements of the solicitation and subsequent contract, must possess the full capability, including financial and technical, to perform as contractually required, and must be able to fully document the ability to provide good faith performance.

2.11 Minimum Qualifications

To be eligible for award of a contract in response to this solicitation, the Bidder must demonstrate that they have successfully completed services, as specified in Section III of this solicitation, are normally and routinely engaged in performing such services, and are properly and legally licensed (if required) to perform such work. Bidder must possess and be able to provide the City with any and all required Federal, State, County and/or municipal licenses, and occupational licenses. Bidder must be able to provide proof of valid licensing for all subcontractors and/or material suppliers hired by the contractor, if requested. In addition, the Bidder must have no conflict of interest with regard to any other work performed by the Bidder for the City.

2.12 Award of Contract

Award may be in the aggregate, or by line item, or by group, whichever is determined to be in the best interest of the City.

The Contract will be awarded only to a Bidder, who in the opinion of the **Engineer**, is fully qualified to undertake the work, quoting the lowest price, for that product/service that will best serve the needs of the City. 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.

The City also reserves the right to accept or reject any or all bids, part of bids, and to waive minor irregularities or variations to specifications contained in bids, and minor irregularities in the bidding process. The City also reserves the right to award the contract on a split order basis, lump sum basis, individual item basis, or such combination as shall best serve the interest of the City.

The City, in all solicitations or advertisements for purchasing of goods, supplies, materials, equipment and services, will receive consideration from qualified businesses without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

2.13 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.

2.14 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 Section 2.13 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. 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.

2.15 Manufacturer/Brand/Model Specific Request

This is a manufacturer/brand/model specification. No substitutions will be allowed unless specified in Form 3 or Attachment D, – Technical Specifications.

2.16 Permits and Fees Refer to Attachment D – Technical Specifications (Section 01025 Basis of Payment)

2.17 Contract Security

When the awarded bidder delivers the executed contract to the City, it must be accompanied by the required bonds.

2.18 Contract Period

The initial contract term shall commence upon the date of award by the City for a **365-day** term. In the event services are scheduled to end because of the expiration of this contract, the Contractor shall continue the service upon the request of the City as authorized by the awarding authority. The extension period shall not extend for more than 120 days beyond the expiration date of the existing contract. The Contractor shall be compensated for the service at the rate in effect when this extension clause is invoked by the City.

2.19 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 5% of the Bid is required for this project.

2.20 Warranties of Usage

Any estimated quantities listed are for information and tabulation purposes only. No warranty or guarantee of quantities needed is given or implied. It is understood that the Contractor will furnish the City's needs as they arise.

2.21 Rules and Submittals of Bids

The signer of the bid must declare that the only person(s), company or parties interested in the proposal as principals are named therein; that the bid is made without collusion with any other person(s), company or parties submitting a bid; that it is in all respects fair and in good faith, without collusion or fraud; and that the signer of the bid has full authority to bind the principal bidder.

2.22 Tie Breaker

In cases where there is a tie for the bid award, the award shall be made by giving preference to the low bidder(s) with the following items (in this order): (1) maintenance of a drug-free workplace in accordance with the requirements of Florida Statutes Section 287.087, (2) local Hollywood vendor preference, (3) closest proximity/location to project site or City Hall, and/or (4) minority-owned or disadvantaged

business status. If a tie still exists after the aforementioned tiebreakers are utilized, the Chief Procurement Officer will make a recommendation for award among the tied bidders.

2.23 Conflict of Interests Prohibited

Any respondent submitting a response to this solicitation is responsible for being aware of, and complying with [Section 34.02](#) of the City Code of Ordinances. If you have questions concerning whether you may or may not need to comply with the ordinance, please contact the City of Hollywood, City Clerk's Office at 954-921-3211.

2.24 Protest Procedure

Any respondent who is not recommended for award of a contract and who alleges a failure by the City to follow the City's [Procurement Code](#) or any applicable law may protest to the CPO, by delivering a letter of protest to the CPO in accordance with [Section 38.52](#) of the City's [Procurement Code](#) within five days after a notice of intent to award is posted on the City's web site, OPENGOV, City Clerk's Office, Open Government, and/or City's Sunshine Board (<https://www.hollywoodfl.org/Archive.aspx?AMID=140>).

2.25 Insurance Requirements

Contractor shall maintain, at its sole expense, during the term of this agreement the following insurances:

All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida and satisfactory to the Owner. All companies be rated a minimum A-VII, as per A.M. Best Company's Key Rating Guide, latest edition.

Any sub-contractor shall supply such similar insurance required of the Contractor. Such certificates shall name the City as additional insured on the general liability and auto liability policies.

The Contractor shall furnish certificates of insurance to Risk Management for review and approval prior to the execution of this agreement. No failure to renew, material change or cancellation of, the insurance shall be effective without a 30-day prior written notice to and approval by the Owner.

Commercial General Liability

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
Personal & Advertising Injury
Damages to rented premises

The minimum limits acceptable shall be:

\$1,000,000 Each Occurrence / \$2,000,000 General Aggregate

The City of Hollywood shall be named as an Additional Insured.

The City of Hollywood must be the certificate holder per the following format:

City of Hollywood (Nothing else on this line)
Department Name & Room # (if applicable)

Department Address
Department Address

I understand and am responsible for the insurance requirements and corresponding due date as documented in this Bid.

Initial _____ Date _____

Commercial Automobile Liability Insurance

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:

\$300,000 Combined Single Limit

The City of Hollywood shall be named as Additional Insured in the Description of Operations Box.

The City of Hollywood must be the certificate holder per the following format:

City of Hollywood (Nothing else on this line)

Department Name & Room # (if applicable)

Department Address

Department Address

Workers' Compensation / Employers Liability

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, each employee

\$500,000 bodily injury by disease, policy limit

Pollution Liability Insurance

The minimum limits of liability shall be:

\$1,000,000 per each claim / \$2,000,000 aggregate

I understand and am responsible for the insurance requirements and corresponding due date as documented in this Bid.

Initial _____ Date _____

Additional Coverage(s)

Please Note: The Certificate shall contain a provision that coverage afforded under the policy will not be cancelled until at least thirty (30) days prior written notice has been given to the City. Certificates of insurance, reflecting evidence of the required insurance, shall be provided to the City. In the event the Certificate of Insurance provided indicates that the insurance shall terminate and lapse during the period of this Agreement, the vendor shall furnish, at least thirty (30) days prior to the expiration of the date of such insurance, a renewed Certificate of Insurance as proof that equal and like coverage for the balance of the period of the Agreement or extension thereunder is in effect.

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. The City reserves the right to require additional insurance in order to meet the full value of the contract.**

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

Contractor shall ensure that Contractor's insurance policy is primary and non-contributory.

The City reserves the right to require any other insurance coverage it deems necessary depending upon the exposures.

I understand and am responsible for the insurance requirements and corresponding due date as documented in this Bid.

Initial _____ Date _____

2.26 Uncontrollable Circumstances (Force Majeure)

The City and Contractor will be excused from the performance of their respective obligations under this agreement when and to the extent that their performance is delayed or prevented by any circumstances beyond their control including, fire, flood, explosion, strikes or other labor disputes, acts of God or public emergency, war, riot, civil commotion, malicious damage, act or omission of any governmental authority, delay or failure or shortage of any type of transportation, equipment, or service from a public utility needed for their performance, provided that:

2.26.1 The nonperforming party gives the other party prompt written notice describing the particulars of the Force Majeure including, but not limited to, the nature of the occurrence and its expected duration, and continues to furnish timely reports with respect thereto during the period of the Force Majeure;

2.26.2 The excuse of performance is of no greater scope and of no longer duration than is required by the Force Majeure; and

2.26.3 No obligations of either party that arose before the Force Majeure causing the excuse of performance are excused as a result of the Force Majeure; and

2.26.4 The non-performing party uses its best efforts to remedy its inability to perform. Notwithstanding the above, performance shall not be excused under this Section for a period in excess of two (2) months, provided that in extenuating circumstances, the City may excuse performance for a longer term. Economic hardship of the Contractor will not constitute Force Majeure. The term of the agreement shall be extended by a period equal to that during which either party's performance is suspended under this Section.

2.27 Supplier Portal (Oracle) Payment Method

The City has implemented software that contains a supplier portal allowing suppliers to submit and update their information via the supplier portal. New suppliers will be required to register; and current suppliers will need to confirm and update their information.

Firms are responsible for ensuring that all contact, payment, and general information is updated at all times, and will not hold the City liable for any inaccurate information.

2.28 Debarred or Suspended Bidders or Proposers

Firm(s) certifies, by submission of a response to this solicitation, that neither it nor its principals and subcontractors are presently debarred or suspended by any federal, state, county or municipal department or agency.

2.29 Payment and Performance Bond

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

2.30 Public Records

A. Public Records/Trade Secrets/Copyright:

All responses will become the property of the City. The Consultant's response to the solicitation is a public record pursuant to Florida law and is subject to disclosure by the City pursuant to Chapter 119.07, Florida Statutes ("Public Records law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this solicitation and the Contract to be executed for this solicitation, subject to the provisions of Chapter 119, Florida Statutes.

Any language contained in the Consultant's response to the solicitation purporting to require confidentiality of any portion of the Consultant's response to the solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Consultant submits any documents or other information to the City that the Consultant claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Consultant shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Consultant must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the

Consultant's response to the solicitation constitutes a Trade Secret. The City's determination of whether an exemption applies shall be final, and the Consultant agrees to defend, indemnify, and hold harmless the City and the City's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the City's treatment of records as public records. In the event of Contract award, all documentation produced as part of the Contract shall become the exclusive property of the City. Proposals purporting to be subject to copyright protection in full or in part will be rejected.

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

B. PUBLIC RECORDS GENERAL

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, PATRICIA A. CERNY, MMC, AT: (954-921-3211), pcerny@hollywoodfl.org, CITY CLERK'S OFFICE, 2600 HOLLYWOOD BLVD, ROOM 221, HOLLYWOOD, FLORIDA 33020

Consultant shall:

1. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
2. Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of this contract if the Consultant does not transfer the records to the City.
4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the Consultant or keep and maintain public records required by the City to perform the service. If the Consultant transfers all public records to the City upon completion of this Contract, the Consultant shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Consultant keeps and maintains public records upon completion of this Contract, the Consultant shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City. It is solely and exclusively the Contractor's responsibility to familiarize itself with Chapter 119, Florida Statutes, and to ensure compliance with its requirements.

END OF SECTION

SECTION III - SCOPE OF SERVICES

3.1 **Project Description**

The scope of work under this contract includes the replacement of ten (10) large user meters in Hollywood, Florida, as outlined below:

1. **LUM-BC-01 (5500 Stirling Road):** Replacement of a 16" ABB meter assembly, replacement of sump and associated piping, and raising of the electric panel by 30" above ground level.
2. **LUM-03 (3350 Pembroke Road):** Replacement of an 8" ABB meter assembly, replacement of sump and associated piping, the addition of a 4" curb and 2' of grading around the structure, removal of roots from inside of the vault, repair of the concrete wall in areas that are spalling, and repair of the vault door hinge.
3. **LUM-03B (5400 Pembroke Road):** Replacement of a 12" ABB meter assembly, replacement of sump and associated piping, repair of the locking mechanism on the control panel, and raising of the electrical panel by 30" above existing ground level.
4. **LUM-05 (2073 N 14th Ave):** Removal of any water inside the vault, replacement of a 12" ABB meter assembly, replacement of sump and associated piping, and raising of the electrical panel by 30" above existing ground level.
5. **LUM-06 (3500 NW 76th Ave):** Replacement of a 12" ABB meter assembly, replacement of sump and associated piping.
6. **LUM-08 (1615 S 22nd Ave):** Replacement of a 10" ABB meter assembly, replacement of sump and associated piping, addition of a rain guard on the manhole, and raising of the electrical panel by 30" above existing ground level.
7. **LUM-09 (1112 S 14th Ave):** Replacement of a 16" ABB meter assembly, replacement of sump and associated piping, and installation of new conduit wiring from the panel to the lift station.
8. **LUM-10 (1200 Three Islands Boulevard):** Removal of any water inside the vault, replacement of a 10" ABB meter assembly, replacement of sump and associated piping.
9. **LUM-11 (6900 Miramar Parkway):** Replacement of a 8" ABB meter assembly, replacement of sump and associated piping.
10. **LUM-12 (7342 Taft St, Pembroke Pines):** Replacement of a 20" ABB meter assembly, replacement of sump and associated piping.

This scope involves comprehensive meter assembly replacements, sump and piping work, electrical panel adjustments, and other required improvements to ensure the functionality and safety of the large user meters at each location.

The Contractor agrees to cooperate and work with the City of Hollywood Utilities Department.

3.2 **Technical Specifications**

Refer to Attachment D.

3.3 **Contractor Qualifications**

The contract will be awarded only to a responsive contractor qualified by experience to do the Work specified. The bidder shall submit, prior to award of contract, satisfactory evidence of his experience in like Work and that he is fully prepared with the necessary organization, capital, equipment and machinery to complete the Work to the satisfaction of the City within the time limit stated. In addition to the above, the Contractor shall satisfy the following criteria:

Contractor to be able to furnish and install large sanitary force main meters (8-inch diameter or larger) in various locations, which may include underground utility excavation, work and surface restoration, as well concrete vault rehabilitation/construction. Contractor shall be able to furnish and install all the electrical components of said meters, which include electrical control panels, RTU/SCADA equipment, conduits and all other related work.

Form 14 – Information Required from Bidders, shall be completed fully and accurately by the Contractor and submitted with the bid. Information included on the questionnaire will be used in evaluating the qualifications of the Contractor. The City reserves the right to request additional information not identified on the questionnaire.

3.4 Subcontractors

For the City to be assured that only competent and qualified subcontractors will be employed on this project, each Bidder shall submit in the bid a list of the subcontractors performing work on this project. This subcontractors list shall include each firm's name, address, telephone number, contact person and work to be performed. Subcontractors shall be properly registered or licensed with the State of Florida, Broward County and the City of Hollywood. Subcontractors shall, in the City's opinion, be qualified both technically and financially to perform the work.

The City reserves the right to reject any subcontractor who is deemed by the City to be unacceptable technically or financially, or has previously performed work which the City believes to be unsatisfactory. No change may be made to this list of subcontractors by the Contractor, before or after contract award, without the express written consent of the City.

If, prior to award, the City rejects any subcontractor, the Contractor shall be afforded the opportunity to submit qualifications for an alternate subcontractor with no attendant increase in the base lump sum bid amount, adjustment of contract time or alteration of the bid documents. Such qualifications will be due within ten (10) days of receipt of notification of subcontractor rejection. Failure to submit an acceptable alternate subcontractor may result in rejection of the bid. In this event, the bid bond shall be returned to Contractor without claim by the City and with forfeiture of all claim rights by the Contractor.

3.5 Deliverables and Objectives

Refer to Attachment B General Conditions, Attachment C Supplementary General Conditions, Attachment D Technical Specifications and Attachment E Drawings.

3.6 Project Schedule / Timeline

Refer to Appendix C, Supplementary conditions, Section 1, Project Schedule.

3.7 Questions

Refer to Form 14, Information Required from Bidders.

3.8 Substantial Completion

Refer to Appendix C, Supplementary conditions, Section 1, Project Schedule.

END OF SECTION

SECTION IV – GENERAL TERMS AND CONDITIONS

1.1 INTENT

It is the policy of the City to encourage full and open competition among all available qualified vendors. All vendors regularly engaged in the type of Work specified in the Bid Solicitation are encouraged to submit bids. To receive notification and to be eligible to bid vendor should be registered with OpenGov. Vendors may register with the OpenGov (registration is free) to be included on a mailing list for selected categories of goods and Services. In order to be processed for payment, any awarded vendor must register with the City by completing and returning a Vendor Application and all supporting documents. For information and to apply as a vendor, please visit our website at hollywoodfl.org to download an application and submit it to Procurement Services Division.

It is the intent of the City of Hollywood, FL ("the City"), through this solicitation and the contract conditions contained herein, to establish to the greatest possible extent complete clarity regarding the requirements of both parties to the agreement resulting from this solicitation.

Before submitting a bid, the Vendor shall be thoroughly familiarized with all contract conditions referred to in this document and any addenda issued before the bid/proposal submission date. Such addenda shall form a part of the SOLICITATION and shall be made a part of the contract. It shall be the Vendor's responsibility to ascertain that the bid/proposal includes all addenda issued prior to the bid/proposal submission date. Addenda will be posted on the City's internet site along with the SOLICITATION.

The terms of the SOLICITATION and the selected Vendor's bid and any additional documentation (e.g. questions and answers) provided by the Vendor during the solicitation process will be integrated into the final contract for services entered into between the City and the selected Vendor. The Vendor shall determine, by personal examination and by such other means as may be preferred, the conditions and requirements under which the agreement must be performed.

1.2 PROPOSER'S RESPONSIBILITIES

Proposers are required to submit their bids upon the following express conditions:

- A. Proposers shall thoroughly examine the drawings, specifications, schedules, instructions and all other contract documents.
- B. Proposers shall make all investigations necessary to thoroughly inform themselves regarding delivery of material, equipment or services as required by the SOLICITATION conditions. No plea of ignorance, by the proposer, of conditions that exist or that may hereafter exist as a result of failure or omission on the part of the proposer to make the necessary examinations and investigations, or failure to fulfill in every detail the requirements of the contract documents, will be accepted as a basis for varying the requirements of the City or the compensation due the proposer.
- C. Proposers are advised that all City contracts are subject to all legal requirements provided for in the City of Hollywood Charter, Code of Ordinances and applicable County Ordinances, State Statutes and Federal Statutes.

1.3 PREPARATION OF BIDS/PROPOSALS

Bids/proposals shall be prepared in accordance with the bid/proposal response format. Bids/proposals not complying with this format may be considered non-responsive and may be removed from consideration on this basis. Each proposer, by making a bid/proposal, represents that this document has been read and is fully understood.

Bids/proposals will be prepared in accordance with the following:

- A. The City's enclosed bid/proposal Forms, in their entirety, are to be used in submitting your bid/proposal. **NO OTHER FORM WILL BE ACCEPTED.**
- B. All information required by the bid/proposal form shall be furnished. The proposer shall sign each continuation sheet (where indicated) on which an entry is made.

C. Prices shall be shown and where there is an error in extension of prices, the unit price shall govern.

The City of Hollywood is exempt from payment to its vendors of State of Florida sales tax and, therefore, such taxes should not be figured into the SOLICITATION. However, this exemption does not apply to suppliers to the City in their (supplier) purchases of goods or services, used in work or goods supplied to the City. Proposers are responsible for any taxes, sales or otherwise, levied on their purchases, subcontracts, employment, etc. An exemption certificate will be signed where applicable, upon request. The City will pay no sales tax.

1.4 DESCRIPTION OF SUPPLIES (As Applicable)

Any manufacturer's names, trade names, brand names, or catalog numbers used in these applications are for the purpose of describing and establishing minimum requirements or level of quality, standards of performance, and design required, and are in no way intended to prohibit the bidding of other manufacturers' items of equal material, unless specifications state "NO SUBSTITUTIONS."

Proposers must indicate any variances to the specifications, terms, and conditions, no matter how slight. If variations are not stated in the bid/proposal, it shall be construed that the bid/proposal fully complies with the Specifications, Terms and Conditions.

Proposers are required to state exactly what they intend to furnish; otherwise they shall be required to furnish the items as specified.

Proposers will submit, with their bid/proposal, necessary data (factory information sheets, specifications, brochures, etc.) to evaluate and determine the quality of the item(s) they are proposing.

The City shall be the sole judge of equality and its decision shall be final.

1.5 ADDENDA

The Procurement Services Division may issue an addendum in response to any inquiry received, prior to bid/proposal opening, which changes, adds to or clarifies the terms, provisions or requirements of the solicitation. The Proposer should not rely on any representation, statement or explanation, whether written or verbal, other than those made in this solicitation document or in any addenda issued. Where there appears to be a conflict between this solicitation and any addendum, the last addendum issued shall prevail. It is the proposer's responsibility to ensure receipt of all addenda and any accompanying documents. Proposer(s) shall acknowledge receipt of any formal Addenda by signing the addendum and including it with their bid/proposal. Failure to include signed formal addenda in its bid/proposal shall cause the City to deem the bid/proposal non-responsive provided, however, that the City may waive this requirement in its best interest.

1.6 REJECTION OF BIDS/PROPOSALS

To the extent permitted by applicable state and federal laws and regulations, the City reserves the right to reject any and all bids/proposals, to waive any and all informalities, irregularities and technicalities not involving price, time or changes in the commodities and/or services, and the right to disregard all nonconforming, non-responsive, unbalanced or conditional bids/proposals. Bids/proposals will be considered irregular and may be rejected if they show serious omissions, alterations in form, additions not called for, conditions or unauthorized alterations or irregularities of any kind.

The City also reserves the right to waive minor technical defects in a bid/proposal. The City reserves the right to determine, in its sole discretion, whether any aspect of a bid/proposal satisfies the criteria established in this Solicitation.

The City reserves the right to reject, in whole or in part, the bid/proposal of any Proposer if the City believes that it would not be in the best interest of the City to make an award to that Proposer, whether because the bid/proposal is not responsive or the Proposer is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criterion established by City.

The foregoing reasons for rejection of bids/proposals are not intended to be exhaustive.

The City may reject a bid/proposal if:

A. The Proposer fails to acknowledge receipt of an addendum, or if

- B. The Proposer misstates or conceals any material fact in the bid/proposal, or if
- C. The bid/proposal does not strictly conform to the law or requirements of the SOLICITATION, or if
- D. The City is under a pre- lawsuit claim or current litigation with the proposer.

Additionally, any one of the following causes (not limited to) may be considered as sufficient justification to disqualify a Bidder and reject his/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 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. 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

The City may reject all bids whenever it is deemed in the best interest of the City to do so, and may reject any part of a bid unless the bid has been qualified as provided in herein.

1.7 WITHDRAWAL OF BIDS

- A. Bids may not be withdrawn and shall be deemed enforceable for a period of 180 days after the time set for the SOLICITATION opening.
- B. Bids may be withdrawn prior to the time set for the SOLICITATION opening. Such request must be in writing.
- C. The City will permanently retain as liquidated damages and the bid deposit furnished by any Bidder who requests to withdraw a bid after the SOLICITATION opening.

1.8 BIDS TO REMAIN OPEN

All bids shall remain open for 180 calendar days after the day of the bid opening, but the City may, at its sole discretion, release any bid and return the bid Security prior to that date.

Extensions of time when bids shall remain open beyond the 180 day period may be made only by mutual written agreement between the City, the successful Bidder and the surety, if any, for the successful Bidder.

1.9 LATE BIDS OR MODIFICATIONS

Only bids received as of the opening date and time will be considered timely. Bids and modifications received after the time set for the opening will be returned un-opened to the sender and rejected as late.

1.10 CONFLICTS WITHIN THE SOLICITATION

Where there appears to be a conflict between the General Terms and Conditions, Special Conditions, the Technical Specifications, the SOLICITATION Submittal Section, or any addendum issued, the order of precedence shall be the last addendum issued, the SOLICITATION Submittal Section, the Technical Specifications, the Special Conditions, and then the General Terms and Conditions.

1.11 CLARIFICATION OR OBJECTION TO BID SPECIFICATIONS

If any person contemplating submitting a bid for this contract is in doubt as to the true meaning of the specifications or other SOLICITATION documents or any part thereof, they may submit requests for clarification to the Procurement Services Division on or before the date specified for a request for clarification. All such requests for clarification shall be made in writing and the person submitting the request will be responsible for its prompt delivery. Any interpretation of the SOLICITATION, if made, will be made only by Addendum duly issued. A copy of such Addendum will be made available to each person receiving a Solicitation. The City will not be responsible for any other explanation or interpretation of the SOLICITATION given prior to the award of the contract. Any objection to the specifications and requirements as set forth in this SOLICITATION must be filed in writing with the Chief Procurement Officer on or before the date specified for a request for clarification.

1.12 COMPETENCY OF PROPOSERS

Pre-award inspection of the Bidder's facility may be made prior to the award of a contract. Bids will be considered only from firms which are regularly engaged in the business of providing the goods and/or services as described in this SOLICITATION(s); have a record of performance for a reasonable period of time; and have sufficient financial support, equipment and organization to ensure that they can satisfactorily deliver the material and/or services if awarded a Contract under the terms and conditions herein stated. The terms "equipment and organization" as used herein shall be construed to mean a fully equipped and well established company in line with the best business practices in the industry and as determined by the proper authorities of the City.

The City may consider any evidence available to it of the financial, technical and other qualifications and abilities of a proposer, including past performance (experience) in making the award in the best interest of the City. In all cases the City of Hollywood shall have no liability to any proposer for any costs or expense incurred in connection with this SOLICITATION or otherwise.

1.13 QUALIFICATIONS OF PROPOSERS

No Bid will be accepted from, nor will any contract be awarded to any person who is in arrears to the City upon any debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to City, or who is deemed responsible or unreliable by the City.

As part of the bid evaluation process, City may conduct a background investigation including a record check by the Hollywood Police Department. Proposer's submission of a bid constitutes acknowledgment of the process and consent to such investigation. City shall be the sole judge in determining a Bidder's qualifications.

1.14 CONSIDERATION OF BIDS

In cases where an item requested is identified by a manufacturer's name, trade name, catalog number, or reference, it is understood that the Vendor proposes to furnish the item so identified and does not propose to furnish an "equal" unless the proposed "equal" is pre-approved by the City.

References to any of the above are intended to be descriptive but not restrictive and only indicate articles that will be satisfactory. A bid of an "equal" will be considered, provided that the Vendor states in his bid exactly what he proposes to furnish, including sample, illustration, or other descriptive matter which will clearly indicate the character of the article covered by such bid. The designated City representative hereby reserves the right to approve as an "equal", or to reject as not being an "equal", any article proposed which contains major or minor variations from specifications requirements.

1.15 AWARD OF CONTRACT

If the Contract is to be awarded, it will be awarded, after evaluation by the City, to the responsible and responsive Proposer whom the City determines will be in the best interests of the City and not necessarily to the lowest cost Proposer. Proposers may be invited to an oral interview before the committee. A short list of finalists will be determined and presented to either the City Manager or his/her designee or to the City Commission, in accordance with the applicable City of Hollywood Code of Ordinances, and will make the final ranking for the purposes of negotiating a contract with the top ranked firm. The successful Proposer shall be required to sign a negotiated contract; the refusal or failure of a successful Proposer to execute a contract which contains the mandatory material terms and conditions contained in the SOLICITATION, shall be grounds for deeming the Proposer and/or the Proposer's bid/proposal non-responsive.

If applicable, the Proposer to whom award is made shall execute a written contract prior to award by the City Commission. If the Proposer to whom the first award is made fails to enter into a contract as herein provided, the Contract may be let to the next highest ranked Proposer who is responsible and responsive in the opinion of the City.

1.16 BASIS FOR AWARD, EVALUATION CRITERIA AND QUESTIONS

The qualification of bid/proposal responders on this project will be considered in making the award. The City is not obligated to accept any bid/proposal if deemed not in the best interest of the City to do so. The City shall make award to a qualified proposer based on fees submitted and responses to this SOLICITATION.

Failure to include in the bid all information outlined herein may be cause for rejection of the bid.

The City reserves the right to accept or reject any and all bids, in whole or in part, as determined to be in the best interest of the City in its sole discretion.

The City reserves the right to waive any informalities or irregularities in bids.

The City reserves the right to negotiate separately the terms and conditions or all or any part of the bids as deemed to be in the City's best interest in its sole discretion.

Information and/or factors gathered during interviews, negotiations and any reference checks, and any other information or factors deemed relevant by the City, shall be utilized in the final award. The final award of a contract is subject to approval by the City Commission.

1.17 AGREEMENT

An agreement shall be sent to the awarded proposer to be signed, witnessed, and returned to the City for execution. The City will provide a copy of the fully executed agreement to the awarded proposer.

1.18 NOTICE TO PROCEED

A signed purchase order, blanket purchase order or fully executed agreement will be the Proposer's authorization to proceed and may substitute for a "Notice to Proceed" form.

1.19 BID PROTESTS

The City shall provide notice of its intent to award or reject to all Proposers by posting such notice on the City's website.

After a notice of intent to award a contract is posted, any actual or prospective proposer who is aggrieved in connection with the pending award of the contract or any element of the process leading to the award of the contract may protest to the Director of Procurement Services. A protest must be filed within five business days after posting or any right to protest is forfeited. The protest must be in writing, must identify the name and address of the protester, and must include a factual summary of, and the basis for, the protest. Filing shall be considered complete when the protest, including a deposit, is received by the Procurement Services Division. Failure to file a protest within the time-frame specified herein shall constitute a full waiver of all rights to protest the City's decision regarding the award.

The written protest shall state in detail the specific facts and law or ordinance upon which the protest of the proposed award is based, and shall include all pertinent documents.

A written protest may not challenge the relative weight of evaluation criteria or a formula for assigning points.

Upon receipt of a formal written protest, the City shall stop award proceedings until resolution of the protest; unless it has been determined that the award of the contract without delay is necessary to protect substantial interests of the City.

Any and all costs incurred by a protesting party in connection with a bid protest shall be the sole responsibility of the protesting party.

Upon receipt of a protest of the pending award of a contract, a copy of the protest shall promptly be forwarded to the City Attorney. The City Attorney shall thereupon review the charge to determine its sufficiency, including whether the protest was timely filed. If upon review the City Attorney determines that the charge is insufficient, the City Attorney may issue a

summary dismissal of the protest. If upon review the City Attorney determines that the charge is sufficient, a hearing of the protest committee shall be scheduled.

A protest committee shall have the authority to review, settle and resolve the protest. The committee shall consist of three members appointed by the City Manager. The committee's review shall be informal.

If the protest committee determines that the pending award of a contract or any element of the process leading to the award involved a significant violation of law or applicable rule or regulation, all steps necessary and proper to correct the violation shall be taken. If the committee determines that the protest is without merit,

The Director shall promptly issue a decision in writing stating the reason for the decision and furnish a copy to the protester and any other interested party, and the process leading to the award shall proceed.

1.20 REQUIREMENTS FOR SIGNING BIDS/PROPOSALS

Requirements for Signing Bid/Proposal:

- A. The bid/proposal must be signed in ink by an individual authorized to legally bind the person, partnership, company, or corporation submitting the bid/proposal. In cases where the bid/proposal is signed by a deputy or subordinate, the principal's proper written grant of authority to such deputy or subordinate must accompany the bid/proposal.
- B. Bids/proposals by corporations must be executed in the corporate name by the President or other corporate officers accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown below the signature.
- C. Bids/proposals by partnerships must be executed in the partnership name and signed by a general partner whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- D. All manual signatures must have the name typed directly under the line of the signature
- E. The above requirements apply to all SOLICITATION addenda.

1.21 EXAMINATION OF BID DOCUMENTS

Before submitting a bid, each Bidder must: examine the bid Documents thoroughly; consider federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress, performance, or provision of the commodities and/or services; study and carefully correlate Proposer's observations with the bid Documents, and notify the City's agent of all conflicts, errors and discrepancies in the bid Documents.

The submission of a bid/proposal will constitute an incontrovertible representation by the Bidder, that the Bidder has complied with every requirement of this SOLICITATION, that without exception, the bid is premised upon performing the services and/or furnishing the commodities and materials in accordance with such means, methods, techniques, sequences or procedures as may be indicated in or required by the bid/proposal Documents, and that the bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions of performance and furnishing of the goods and/or services.

1.22 PUBLIC RECORDS LAW

If applicable, for each public agency contract for services, the Proposer is required to comply with F.S. 119.0701, which includes the following:

- A. Keep and maintain public records that ordinarily and necessarily would be required by the public agency in order to perform the service.
- B. Provide the public with access to public records on the same terms and conditions that the public agency would provide the records and at a cost that does not exceed the cost provided in F.S. Chapter 119 or as otherwise provided by law.

- C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.
- D. Meet all requirements for retaining public records and transfer, at no cost, to the public agency, all public records in possession of the proposer upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the public agency in a format that is compatible with the information technology systems of the public agency.

Public records may be inspected and examined by anyone desiring to do so, at a reasonable time, under reasonable conditions, and under supervision by the custodian of the public record. Sealed Bids become subject to the public records disclosure requirements of F.S. Chapter 119, notwithstanding a proposers' request to the contrary, at the time the City provides notice of a decision or intended decision, or 30 days after the bid/proposal opening, whichever is earlier.

Financial statements submitted in response to a request by the City may be confidential and exempt from disclosure.

Data processing software obtained under a licensing agreement which prohibits its disclosure may also exempt.

Proposers are hereby notified and agree that all information submitted as part of, or in support of SOLICITATION submittals will be available for public inspection after opening of SOLICITATION in compliance with Chapter 119 of the Florida Statutes. The proposer shall not, unless required as part of this SOLICITATION, submit any information in response to this invitation which the proposer considers to be a trade secret, proprietary or confidential. The submission, not required as part of this SOLICITATION, of any information to the City in connection with this invitation shall be deemed conclusively to be a waiver of any trade secret or other protection, which would otherwise be available to the proposer.

1.23 INFORMATION

For information concerning procedure for responding to this Solicitation (SOLICITATION), contact the Point of Contact in the Section 1.4. Such contact shall be for clarification purposes only. **It is preferred that all other questions be submitted in writing via OpenGov at least 10 calendar days prior to the bid/proposal due/opening date.**

1.24 N/A – INTENTIONALLY OMITTED

1.25 MODIFICATION AND WITHDRAWAL OF BIDS/PROPOSALS

Bids must be modified or withdrawn by an appropriate document duly executed in the manner that a bid must be executed and delivered to the place where bids are to be submitted at any time prior to the deadline for submitting bids. A request for withdrawal or a modification must be in writing and signed by a person duly authorized to do so and, in a case where signed by a deputy or subordinate, the principal's proper written grant of authority to such deputy or subordinate must accompany the request for withdrawal or modification. Withdrawal of a bid will not prejudice the rights of a Bidder to submit a new bid prior to the bid date and time. Except where provided in the following paragraph no bid may be withdrawn or modified after expiration of the period for receiving bids.

If, within twenty-four (24) hours after bids are opened, any Bidder files a duly signed written notice with the City and within five (5) calendar days thereafter demonstrates to the reasonable satisfaction of the City by clear and convincing evidence that there was a material and substantial mistake in the preparation of its bid, or that the mistake is clearly evident on the face of the bid but the intended correct bid is not similarly evident, then the Bidder may withdraw its bid and the bid Security will be returned.

1.26 N/A – INTENTIONALLY OMITTED

1.27 OPEN END CONTRACT

No guarantee is expressed or implied as to the total quantity of commodities/services to be purchased under any open end contract. Estimated quantities will be used for bid comparison purposes only. The City reserves the right to issue purchase orders as and when required, or a blanket purchase order and release partial quantities as and when required or any combination of the preceding.

ORDERING: The CITY reserves the right to purchase commodities/services specified herein through Contracts established by other governmental agencies or through separate procurement actions due to unique or special needs. If an urgent

delivery is required within a period shorter than the delivery time specified in the contract, and if the seller is unable to comply therewith, the City reserves the right to obtain such delivery from others without penalty or prejudice to the City or to the Bidder.

1.28 AUDIT RIGHTS

The City reserves the right to audit the records of the successful Bidder for the commodities and/or services provided under the Contract at any time during the performance and term of the Contract and for a period of three (3) years after completion and acceptance by the City. If required by the City, the successful Bidder agrees to submit to an audit by an independent certified public accountant selected by the City. The successful Bidder shall allow the City to inspect, examine and review the records of the successful Bidder in relation to this contract at any and all times during normal business hours during the term of the Contract.

1.29 LOCAL, STATE AND FEDERAL COMPLIANCE REQUIREMENTS

The Bidder shall comply with all local, state and federal directives, orders and laws as applicable to this SOLICITATION and subsequent contract(s) including, but not limited to:

- A. Equal Employment Opportunity (EEO), in compliance with Executive Order 11246 as amended and applicable to this contract.
- B. All manufactured items and fabricated assemblies shall comply with applicable requirements of the Occupation Safety and Health Act of 1970 as amended, and be in compliance with Chapter 442, Florida Statutes. Any toxic substance listed in Section 38F-41.03 of the Florida Administrative Code delivered as a result of this order must be accompanied by a completed Material Safety Data Sheet (MSDS).
- C. The Immigration and Nationality Act prohibits (i) the employment of an unauthorized alien when the employer knows the individual is an unauthorized alien and (ii) the employment of an individual without complying with the requirements of the federal employment verification system. If a proposer commits either of these violations, such violation shall be cause for unilateral cancellation of the contract.
- D. This Section applies only to any contract for goods or services of \$1 million or more: The Proposer certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List and that it does not have business operations in Cuba or Syria as provided in section 287.135, Florida Statutes (2011), as may be amended or revised. The City may terminate this Contract at the City's option if the Proposer is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2011), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or has engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2011), as may be amended or revised.

1.30 FRAUD AND MISREPRESENTATION

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

1.31 DEBARRED OR SUSPENDED BIDDERS

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

1.32 COLLUSION

More than one bid/proposal received for the same work from an individual, firm, partnership, corporation or association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one bid for the same work will cause the rejection of such bid which the Bidder is interested. If there are reasonable grounds for believing that collusion exists among the Bidder, the bids of participants in such collusion will not be considered.

1.33 COPELAND "ANTI-KICKBACK"

The Bidder and all sub bidders will comply with the Copeland Anti-Kickback Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3).

1.34 FORCE MAJEURE

The Agreement which is awarded to the successful proposer may provide that the performance of any act by the City or Bidder hereunder may be delayed or suspended at any time while, but only so long as, either party is hindered in or prevented from performance by acts of God, the elements, war, rebellion, strikes, lockouts or any cause beyond the reasonable control of such party, provided however, the City shall have the right to provide substitute service from third parties or City forces and in such event the City shall withhold payment due the Bidder for such period of time. If the condition of force majeure exceeds a period of 14 days the City may, at its option and discretion, cancel or renegotiate this Agreement.

1.35 PUBLIC ENTITY CRIMES

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a Bidder, supplier, sub bidder, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida Statutes, Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

1.36 DRUG-FREE WORKPLACE PROGRAM

Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program.

1.37 SOLICITATION, GIVING, AND ACCEPTANCE OF GIFTS POLICY

Bidder shall sign and submit the attached form indicating understanding and compliance with the City's and State's policies prohibiting solicitation and acceptance of gifts by public officers, employees and candidates. Failure to submit the signed form will result in your bid being declared non-responsive; provided, however, that a responsible Bidder whose bid would be responsive but for the failure to submit the signed form in its bid may be given the opportunity to submit the form to the City within five calendar days after notification by the City, if this is determined to be in the best interest of the City.

1.38 CONFLICT OF INTEREST

The Bidder represents that:

No officer, director, employee, agent, or other consultant of the City or a member of the immediate family or household of the aforesaid has directly or indirectly received or been promised any form of benefit, payment or compensation, whether tangible or intangible, in connection with the grant of this Agreement.

There are no undisclosed persons or entities interested with the Proposer in this Agreement. This Agreement is entered into by the Proposer without any connection with any other entity or person making a bid Bidder for the same purpose, and without collusion, fraud or conflict of interest. No elected or appointed officer or official, director, employee, agent or other consultant of the City, or of the State of Florida (including elected and appointed members of the legislative and executive branches of government), or member of the immediate family or household of any of the aforesaid:

1. Is interested on behalf of or through the Bidder directly or indirectly in any manner whatsoever in the execution or the performance of this Agreement, or in the services, supplies or work, to which this Agreement relates or in any portion of the revenues; or

2. Is an employee, agent, advisor, or consultant to the Proposer or to the best of the Proposer's knowledge, any sub bidder or supplier to the Bidder.

Neither the Bidder nor any officer, director, employee, agent, parent, subsidiary, or affiliate of the Bidder shall have an interest which is in conflict with the Bidder's faithful performance of its obligations under this Agreement; provided that the City, in its sole discretion, may consent in writing to such a relationship, and provided the Bidder provides the City with a written notice, in advance, which identifies all the individuals and entities involved and sets forth in detail the nature of the relationship and why it is in the City's best interest to consent to such relationship.

The provisions of this Article are supplemental to, not in lieu of, all applicable laws with respect to conflict of interest. In the event there is a difference between the standards applicable under this Agreement and those provided by statute, the stricter standard shall apply.

In the event the Bidder has no prior knowledge of a conflict of interest as set forth above and acquires information which may indicate that there may be an actual or apparent violation of any of the above, the Bidder shall promptly bring such information to the attention of the City's ENGINEER. The Bidder shall thereafter cooperate with the City's review and investigation of such information, and comply with the instructions the Bidder receives from the ENGINEER in regard to remedying the situation.

1.39 DISCRIMINATION

Any entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not award or perform work as a proposer, supplier, sub bidder, or consultant under contract with any public entity, and may not transact business with any public entity.

1.40 ADVICE OF OMISSION OR MISSTATEMENT

In the event it is evident to a Vendor responding to this SOLICITATION that the City has omitted or misstated a material requirement to this SOLICITATION and/or the services required by this SOLICITATION, the responding Vendor shall advise the contact identified in the SOLICITATION Clarifications and Questions section above of such omission or misstatement.

1.41 CONFIDENTIAL INFORMATION

Information contained in the Vendor's bid that is company confidential must be clearly identified in the bid/proposal itself. The City will be free to use all information in the Vendor's bid for the City's purposes, in accordance with State Law. Vendor bids shall remain confidential for 30 days or until a notice of intent to award is posted, which is sooner. The Vendor understands that any material supplied to the City may be subject to public disclosure under the Public Records Law.

1.42 GOVERNING LAW

This Contract, including appendices, and all matters relating to this Contract (whether in contract, statute, tort (such as negligence), or otherwise) shall be governed by, and construed in accordance with, the laws of the State of Florida. This shall apply notwithstanding such factors which include, but are not limited to, the place where the contract is entered into, the place where the accident occurs and notwithstanding application of conflicts of law principles.

1.43 LITIGATION VENUE

The parties waive the privilege of venue and agree that all litigation between them in the state courts shall take place in Broward County, Florida and that all litigation between them in the federal courts shall take place in the Southern District of Florida.

1.44 SOVEREIGN IMMUNITY

Nothing in this agreement shall be interpreted or construed to mean that the city waives its common law sovereign immunity or the limits of liability set forth in Section 768.28, Florida Statute.

1.45 SURVIVAL

The parties acknowledge that any of the obligations in this Agreement will survive the term, termination and cancellation hereof. Accordingly, the respective obligations of the Proposer and the City under this Agreement, which by nature would continue beyond the termination, cancellation or expiration thereof, shall survive termination, cancellation or expiration hereof.

1.46 INDEMNIFICATION AND HOLD HARMLESS AGREEMENT

The Contractor shall indemnify and hold harmless the City of Hollywood and its officers, employees, agents and instrumentalities from any and all liability, losses or damages. In addition, the City shall be entitled to attorney's fees and costs of defense, which the City of Hollywood, or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this project by the awarded Bidder or its employees, agents, servants, partners, principals or subcontractors. Furthermore, the awarded Bidder shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind of nature in the name of the City of Hollywood, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. The awarded Bidder expressly understands and agrees that any insurance protection required by the resulting agreement or otherwise provided by the awarded Bidder shall cover the City of Hollywood, its officers, employees, agents and instrumentalities and shall include claims for damages resulting from and/or caused by the negligence, recklessness or intentional wrongful misconduct of the Contractor and persons employed by or utilized by the Contractor in the performance of the contract.

1.47 PATENT AND COPYRIGHT INDEMNIFICATION

The Bidder warrants that all deliverables furnished hereunder, including but not limited to: services, equipment programs, documentation, software, analyses, applications, methods, ways, processes, and the like, do not infringe upon or violate any patent, copyrights, service marks, trade secret, or any other third party proprietary rights.

The Bidder shall be liable and responsible for any and all claims made against the City for infringement of patents, copyrights, service marks, trade secrets or any other third party proprietary rights, by the use or supplying of any programs, documentation, software, analyses, applications, methods, ways, processes, and the like, in the course of performance or completion of, or in any way connected with, the work, or the City's continued use of the deliverables furnished hereunder. Accordingly, the Bidder, at its own expense, including the payment of attorney's fees, shall indemnify, and hold harmless the City and defend any action brought against the City with respect to any claim, demand, and cause of action, debt, or liability.

In the event any deliverable or anything provided to the City hereunder, or a portion thereof, is held to constitute an infringement and its use is or may be enjoined, the Bidder shall have the obligation, at the City's option, to (i) modify, or require that the applicable sub bidder or supplier modify, the alleged infringing item(s) at the Bidder's expense, without impairing in any respect the functionality or performance of the item(s), or (ii) procure for the City, at the Bidder's expense, the rights provided under this Agreement to use the item(s).

The Bidder shall be solely responsible for determining and informing the City whether a prospective supplier or sub bidder is a party to any litigation involving patent or copyright infringement, service mark, trademark, violation, or proprietary rights claims or is subject to any injunction which may prohibit it from providing any deliverable hereunder. The Bidder shall enter into agreements with all suppliers and sub bidder at the Bidder's own risk. The City may reject any deliverable that it believes to be the subject of any such litigation or injunction, or if, in the City's judgment, use thereof would delay the work or be unlawful.

The Bidder shall not infringe any copyright, trademark, service mark, trade secrets, patent rights, or other intellectual property rights in the performance of the work.

1.48 ADVERTISING

Vendor shall not advertise or publish the fact that the City has placed this order without prior written consent from the City, except as may be necessary to comply with a proper request for information from an authorized representative of a governmental unit or agency.

1.49 DISCLAIMER

The Hollywood may, in its sole discretion, accept or reject, in whole or in part, for any reason whatsoever any or all bids; re-advertise this SOLICITATION, postpone or cancel at any time this SOLICITATION process; or, waive any formalities of or irregularities in the bid process. Bids that are not submitted on time and/or do not conform to the City of Hollywood's requirements will not be considered. After all bids are analyzed, organization(s) submitting bid that appear, solely in the opinion of the City of Hollywood, to be the most competitive, shall be submitted to the City of Hollywood's City Commission, and the final selection will be made shortly thereafter with a timetable set solely by the City of Hollywood. The selection by the City of Hollywood shall be based on the bid, which is, in the sole opinion of the City Commission of the City of Hollywood, in the best interest of the City of Hollywood. The issuance of this SOLICITATION constitutes only an invitation to make a bid to the City of Hollywood. The City of Hollywood reserves the right to determine, in its sole discretion, whether any aspect of the bid satisfies the criteria established by the City. In all cases the City of Hollywood shall have no liability to any proposer for any costs or expense incurred in connection with this bid or otherwise.

1.50 TRADEMARKS

The City warrants that all trademarks the City requests the Vendor to affix to articles purchased are those owned by the City and it is understood that the Vendor shall not acquire or claim any rights, title, or interest therein, or use any of such trademarks on any articles produced for itself or anyone other than the City.

1.51 RIGHT TO REQUEST ADDITIONAL INFORMATION

The City reserves the right to request any additional information that might be deemed necessary during the evaluation process.

1.52 BID PREPARATION COSTS

The Vendor is responsible for any and all costs incurred by the Vendor or his/her sub bidders in responding to this solicitation.

1.53 DESIGN COSTS (N/A)

1.54 ADDITIONAL CHARGES

No additional charges, other than those listed on the price breakdown sheets, shall be made. Prices quoted will include verification/coordination of order, all costs for shipping, delivery to all sites, unpacking, setup, installation, operation, testing, cleanup, training and Vendor travel charges.

1.55 RIGHTS TO PERTINENT MATERIALS

All responses, inquires, and correspondence relating to this SOLICITATION and all reports, charts, displays, schedules, exhibits and other documentation produced by the Vendor that are submitted as part of the bid shall become the property of the City upon receipt, a part of a public record upon opening, and will not be returned.

1.56 INSURANCE REQUIREMENTS

See insurance requirements in the main solicitation document.

1.57 NATURE OF THE AGREEMENT

The Agreement incorporates and includes all negotiations, correspondence, conversations, agreements, and understandings applicable to the matters contained in the Agreement. The parties agree that there are no commitments, agreements, or understandings concerning the subject matter of the Agreement that are not contained in the Agreement, and that the Agreement contains the entire agreement between the parties as to all matters contained herein. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written. It is further agreed that any oral representations or modifications concerning this Agreement shall be of no force or effect, and that the Agreement may be modified, altered or amended only by a written amendment duly executed by both parties hereto or their authorized representatives.

The Bidder shall provide the services set forth in the Scope of Services, and render full and prompt cooperation with the City in all aspects of the services performed hereunder.

The Bidder acknowledges that the Agreement requires the performance of all things necessary for or incidental to the effective and complete performance of all work and services under this Contract. All things not expressly mentioned in the Agreement but necessary to carrying out its intent are required by the Agreement, and the Bidder shall perform the same as though they were specifically mentioned, described and delineated.

The Bidder shall furnish all labor, materials, tools, supplies, and other items required to perform the work and services that are necessary for the completion of this Contract. All work and services shall be accomplished at the direction of and to the satisfaction of the City's ENGINEER.

The Bidder acknowledges that the City shall be responsible for making all policy decisions regarding the Scope of Services. The Proposer agrees to provide input on policy issues in the form of recommendations.

The Bidder agrees to implement any and all changes in providing services hereunder as a result of a policy change implemented by the City. The Bidder agrees to act in an expeditious and fiscally sound manner in providing the City with input regarding the time and cost to implement said changes and in executing the activities required to implement said changes

1.58 AUTHORITY OF THE CITY'S ENGINEER

The Bidder hereby acknowledges that the City's ENGINEER will determine in the first instance all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Agreement including without limitations: questions as to the value, acceptability and fitness of the services; questions as to either party's fulfillment of its obligations under the Contract; negligence, fraud or misrepresentation before or subsequent to acceptance of the Bid; questions as to the interpretation of the Scope of Services; and claims for damages, compensation and losses.

The Bidder shall be bound by all determinations or orders and shall promptly obey and follow every order of the ENGINEER, including the withdrawal or modification of any previous order and regardless of whether the Bidder agrees with the ENGINEER's determination or order. Where orders are given orally, they will be issued in writing by the ENGINEER as soon thereafter as is practicable.

The Bidder must, in the final instance, seek to resolve every difference concerning the Agreement with the ENGINEER. In the event that the ENGINEER and the Bidder are unable to resolve their difference, the Bidder may initiate a dispute in accordance with the procedures set forth in the section below. Exhaustion of these procedures shall be a condition precedent to any lawsuit permitted hereunder.

In the event of such dispute, the parties to this Agreement authorize the City Manager or designee, who may not be the ENGINEER or anyone associated with this Project, acting personally, to decide all questions arising out of, under, or in connection with, or in any way related to or on account of the Agreement (including but not limited to claims in the nature of breach of contract, fraud or misrepresentation arising either before or subsequent to execution hereof) and the decision of each with respect to matters within the City Manager's purview as set forth above shall be conclusive, final and binding on the parties. Any such dispute shall be brought, if at all, before the City Manager within 10 days of the occurrence, event or act out of which the dispute arises.

The City Manager may base this decision on such assistance as may be desirable, including advice of experts, but in any event shall base the decision on an independent and objective determination of whether the Bidder's performance or any deliverable meets the requirements of this Agreement and any specifications with respect thereto set forth herein. The effect of any decision shall not be impaired or waived by any negotiations or settlements or offers made in connection with the dispute, whether or not the City Manager participated therein, or by any prior decision of others, which prior decision shall be deemed subject to review, or by any termination or cancellation of the Agreement. All such disputes shall be submitted in writing by the Bidder to the City Manager for a decision, together with all pertinent information in regard to such questions, in order that a fair and impartial decision may be made. The parties agree that whenever the City Manager is entitled to exercise discretion or judgment or to make a determination or form an opinion pursuant to the provisions of this Article, such action shall be deemed fair and impartial when exercised or taken. The City Manager shall render a decision in writing and deliver a copy of the same to the Bidder. Except as such remedies may be limited or waived elsewhere in the Agreement, the Bidder reserves the right to pursue any remedies available under law after exhausting the provisions of this Article.

1.59 MUTUAL OBLIGATIONS

This Agreement, including attachments and appendices to the Agreement, shall constitute the entire Agreement between the parties with respect hereto and supersedes all previous communications and representations or agreements, whether written or oral, with respect to the subject matter hereof unless acknowledged in writing by the duly authorized representatives of both parties.

Nothing in this Agreement shall be construed for the benefit, intended or otherwise, of any third party that is not a parent or subsidiary of a party or otherwise related (by virtue of ownership control or statutory control) to a party.

In those situations where this Agreement imposes an indemnity or defense obligation on the Bidder, the City may, at its expense, elect to participate in the defense if the City should so choose. Furthermore, the City may at its own expense defend or settle any such claims if the Bidder fails to diligently defend such claims, and thereafter seek indemnity for costs and attorney's fees from the Bidder.

1.60 SUBCONTRACTUAL RELATIONS

If the Bidder will cause any part of this Agreement to be performed by a sub bidder, the provisions of this Contract will apply to such sub bidder and its officers, agents and employees in all respects as if it and they were employees of the Proposer; and the Proposer will not be in any manner thereby discharged from its obligations and liabilities hereunder, but will be liable hereunder for all acts and negligence of the sub bidder, its officers, agents, and employees, as if they were employees of the Proposer. The services performed by the sub bidder will be subject to the provisions hereof as if performed directly by the Bidder.

The Bidder, before making any subcontract for any portion of the services, will state in writing to the City the name of the proposed sub bidder, the portion of the services which the sub bidder is to do, the place of business of such sub bidder, and such other information as the City may require. The City will have the right to require the Bidder not to award any subcontract to a person, firm or corporation disapproved by the City.

Before entering into any subcontract hereunder, the Bidder will inform the sub bidder fully and completely of all provisions and requirements of this Agreement relating either directly or indirectly to the services to be performed. Such services performed by such sub bidder will strictly comply with the requirements of this Contract.

In order to qualify as a sub bidder satisfactory to the City, in addition to the other requirements herein provided, the sub bidder must be prepared to prove to the satisfaction of the City that it has the necessary facilities, skill and experience, and ample financial resources to perform the services in a satisfactory manner. To be considered skilled and experienced, the sub bidder must show to the satisfaction of the City that it has satisfactorily performed services of the same general type which are required to be performed under this Agreement.

The City shall have the right to withdraw its consent to a subcontract if it appears to the City that the subcontract will delay, prevent, or otherwise impair the performance of the Bidder's obligations under this Agreement. All sub bidder are required to protect the confidentiality of the City and City's proprietary and confidential information. The Bidder shall furnish to the City copies of all subcontracts between the Bidder and sub bidder and suppliers hereunder. Within each such subcontract, there shall be a clause for the benefit of the City permitting the City to request completion of performance by the sub bidder of its obligations under the subcontract, in the event the City finds the Bidder in breach of its obligations, and the option to pay the sub bidder directly for the performance by such sub bidder. The foregoing shall neither convey nor imply any obligation or liability on the part of the City to any sub bidder hereunder as more fully described herein.

1.61 PROMPT PAYMENT: LATE PAYMENTS BY BIDDER TO SUB BIDDER AND MATERIAL SUPPLIERS; PENALTY:

When a Bidder receives from the City of Hollywood any payment for contractual services, commodities, materials, supplies, or construction contracts, the proposer shall pay such moneys received to each sub bidder and material supplier in proportion to the percentage of work completed by each sub bidder and material supplier at the time of receipt. If the Bidder receives less than full payment, then the proposer shall be required to disburse only the funds received on a pro rata basis to the sub bidder and materials Suppliers, each receiving a prorated portion based on the amount due on the payment. If the proposer without reasonable cause fails to make payments required by this section to sub bidder and material suppliers within fifteen (15) working days after the receipt by the Bidder of full or partial payment, the proposer shall pay to the sub bidder and material suppliers a penalty in the amount of one percent (1%) of the amount due, per month, from the expiration of the period allowed herein for payment. Such penalty shall be in addition to actual payments owed. Retainage is also subject to the prompt payment requirement and must be returned to the sub bidder or material

supplier whose work has been completed, even if the prime contract has not been completed. The Bidder shall include the above obligation in each subcontract it signs with a sub bidder or material supplier.

1.62 TERMINATION FOR CONVENIENCE AND SUSPENSION OF WORK

The City may terminate this Agreement if an individual or corporation or other entity attempts to meet its contractual obligation with the City through fraud, misrepresentation or material misstatement.

The City may, as a further sanction, terminate or cancel any other contract(s) that such individual or corporation or other entity has with the City. Such individual, corporation or other entity shall be responsible for all direct and indirect costs associated with such termination or cancellation, including attorney's fees.

The foregoing notwithstanding, any individual, corporation or other entity which attempts to meet its contractual obligations with the City through fraud, misrepresentation or material misstatement may be debarred from City contracting in accordance with the City debarment procedures. The Bidder may be subject to debarment for failure to perform and any other reasons related to the Bidder's breach or failure of satisfactory performance.

In addition to cancellation or termination as otherwise provided in this Agreement, the City may at any time, in its sole discretion, with or without cause, terminate this Agreement by written notice to the Bidder and in such event:

The Bidder shall, upon receipt of such notice, unless otherwise directed by the City:

1. Stop work on the date specified in the notice ("the Effective Termination Date");
2. Take such action as may be necessary for the protection and preservation of the City's materials and property;
3. Cancel orders;
4. Assign to the City and deliver to any location designated by the City any non-cancelable orders for deliverables that are not capable of use except in the performance of this Agreement and which have been specifically developed for the sole purpose of this Agreement and not incorporated in the services;
5. Take no action which will increase the amounts payable by the City under this Agreement.

In the event that the City exercises its right to terminate this Agreement pursuant to this Article, the Bidder will be compensated as stated in the payment articles herein, for the:

1. Portion of the services completed in accordance with the Agreement up to the Effective Termination Date; and
2. Non-cancelable deliverables that are not capable of use except in the performance of this Agreement and which have been specifically developed for the sole purpose of this Agreement but not incorporated in the services.

All compensation pursuant to this Article is subject to audit.

1.63 EVENT OF DEFAULT

An Event of Default shall mean a breach of this Agreement by the Bidder. Without limiting the generality of the foregoing and in addition to those instances referred to herein as a breach, an Event of Default, shall include the following:

1. The Bidder has not delivered deliverables on a timely basis;
2. The Bidder has refused or failed, except in any case for which an extension of time is provided, to supply enough properly skilled staff personnel;
3. The Bidder has failed to make prompt payment to sub bidder or suppliers for any services;

4. The Bidder has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received for the benefit of the Bidder 's creditors, or the Bidder has taken advantage of any insolvency statute or debtor/creditor law or if the Bidder 's affairs have been put in the hands of a receiver;
5. The Bidder has failed to obtain the approval of the City where required by this Agreement;
6. The Bidder has failed to provide "adequate assurances" as required under subsection "B" below; and
7. The Bidder has failed in the representation of any warranties stated herein.

When, in the opinion of the City, reasonable grounds for uncertainty exist with respect to the Proposer's ability to perform the services or any portion thereof, the City may request that the Proposer, within the time frame set forth in the City's request, provide adequate assurances to the City, in writing, of the Proposer's ability to perform in accordance with terms of this Agreement. Until the City receives such assurances the City may request an adjustment to the compensation received by the Proposer for portions of the services which the Proposer has not performed. In the event that the Proposer fails to provide to the City the requested assurances within the prescribed time frame, the City may:

1. Treat such failure as a repudiation of this Agreement;
2. Resort to any remedy for breach provided herein or at law, including but not limited to, taking over the performance of the services or any part thereof either by itself or through others.

In the event the City shall terminate this Agreement for default, the City or its designated representatives may immediately take possession of all applicable equipment, materials, products, documentation, reports and data.

1.64 REMEDIES IN THE EVENT OF DEFAULT

If an Event of Default occurs, the Proposer shall be liable for all damages resulting from the default, including but not limited to:

- A. Lost revenues;
- B. The difference between the cost associated with procuring services hereunder and the amount actually expended by the City for procurement of services, including procurement and administrative costs; and,
- C. Such other damages that the City may suffer.

The Proposer shall also remain liable for any liabilities and claims related to the Proposer's default. The City may also bring any suit or proceeding for specific performance or for an injunction.

1.65 BANKRUPTCY

The City reserves the right to terminate this contract if, during the term of any contract the Proposer has with the City, the Proposer becomes involved as a debtor in a bankruptcy proceeding, or becomes involved in a reorganization, dissolution, or liquidation proceeding, or if a trustee or receiver is appointed over all or a substantial portion of the property of the Proposer under federal bankruptcy law or any state insolvency law.

1.66 CANCELLATION FOR UNAPPROPRIATED FUNDS

The obligation of the City for payment to a Proposer is limited to the availability of funds appropriated in a current fiscal period, and continuation of the contract into a subsequent fiscal period is subject to appropriation of funds, **unless otherwise authorized by law.**

1.67 VERBAL INSTRUCTIONS PROCEDURE

No negotiations, decisions, or actions shall be initiated or executed by the Proposer as a result of any discussions with any City employee. Only those communications which are in writing from an authorized City representative may be considered. Only written communications from Proposers, which are signed by a person designated as authorized to bind the Proposer, will be recognized by the City as duly authorized expressions on behalf of the Proposer.

1.68 E-VERIFY

Proposer acknowledges that the City may be utilizing the Proposer's services for a project that is funded in whole or in part by State funds pursuant to a contract between the City and a State agency. The Proposer shall be responsible for complying with the E-Verify requirements in the contract and using the U.S. Department of Homeland Security's E-Verify system to verify the employment of all new employees hired by the Proposer during the Agreement term. The Proposer is also responsible for e-verifying its bidders, if any, pursuant to any agreement between the City and a State Agency, and reporting to the City any required information. The Proposer acknowledges that the terms of this paragraph are material terms, the breach of any of which shall constitute a default under this Agreement.

1.69 BUDGETARY CONSTRAINTS

In the event the City is required to reduce contract costs due to budgetary constraints, all services specified in this document may be subject to a permanent or temporary reduction in budget. In such an event, the total cost for the affected service shall be reduced as required. The Proposer shall also be provided with a minimum 30-day notice prior to any such reduction in budget.

1.70 COST ADJUSTMENTS (As Applicable)

The cost for all items as quoted herein shall remain firm for the first term of the contract. Costs for subsequent years and any extension term years shall be subject to an adjustment only if increases occur in the industry. However, unless very unusual and significant changes have occurred in the industry, such increases shall not exceed 3% per year or, whichever is less, the latest yearly percentage increase in the All Urban Consumers Price Index (CPU-U) (National) as published by the Bureau of Labor Statistics, U.S. Dept. of Labor. The yearly increase or decrease in the CPI shall be that latest index published and available ninety (90) days prior to the end of the contract year than in effect compared to the index for the same month one year prior. Any requested cost increase shall be fully documented and submitted to the City at least ninety (90) days prior to the contract anniversary date. Any approved cost adjustments shall become effective upon the anniversary date of the contract. In the event the CPI or industry costs decline, the City shall have the right to receive from the Proposer a reduction in costs that reflects such cost changes in the industry. The City may, after examination, refuse to accept the adjusted costs if they are not properly documented, increases are considered to be excessive, or decreases are considered to be insufficient. In the event the City does not wish to accept the adjusted costs and the matter cannot be resolved to the satisfaction of the City, the contract can be cancelled by the City upon giving thirty (30) days written notice to the Proposer.

1.71 OSHA STANDARDS

Proposer acknowledges and agrees that as Contractor for the City of Hollywood, Florida, within the limits of the City of Hollywood, Florida, will have the sole responsibility for compliance with all requirements of the Federal Occupational Safety and Health Act of 1970, and all State and local safety and health regulations, and agrees to defend, indemnify and hold harmless the City of Hollywood, Florida, its officials, employees, service providers, and its agents against any and all legal liability or loss the City of Hollywood, Florida may incur due to the Contractor's failure to comply with such act.

END OF SECTION



ADDENDA REPORT
IFB No. IFB-347-25-JJ
Large User Meter Replacement

RESPONSE DEADLINE: November 6, 2025 at 3:00 pm

Thursday, January 8, 2026

Addenda Issued:

Addendum #1

Oct 16, 2025 10:55 AM

Please use the [See What Changed](#) link to view all the changes made by this addendum.

Addendum #2

Oct 16, 2025 10:55 AM

Please use the [See What Changed](#) link to view all the changes made by this addendum.

Addendum #3

Oct 23, 2025 10:12 AM

Please use the [See What Changed](#) link to view all the changes made by this addendum.

Addendum #4

Oct 23, 2025 10:13 AM

Please use the [See What Changed](#) link to view all the changes made by this addendum.

Addendum #5

Oct 23, 2025 10:15 AM

Please use the [See What Changed](#) link to view all the changes made by this addendum.

Addenda Acknowledgements:

Addendum #1

Proposal	Confirmed	Confirmed At	Confirmed By
Southeastern Engineering Contractors, Inc.	X	Oct 16, 2025 11:02 AM	Eduardo Dominguez
R&M Service Solutions, LLC.	X	Oct 20, 2025 2:11 PM	Mike George

Addendum #2

Proposal	Confirmed	Confirmed At	Confirmed By
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ADDENDA REPORT
IFB No. IFB-347-25-JJ
Large User Meter Replacement

Southeastern Engineering Contractors, Inc.	X	Oct 16, 2025 11:02 AM	Eduardo Dominguez
R&M Service Solutions, LLC.	X	Oct 20, 2025 2:11 PM	Mike George

Addendum #3

Proposal	Confirmed	Confirmed At	Confirmed By
Southeastern Engineering Contractors, Inc.	X	Oct 23, 2025 10:31 AM	Eduardo Dominguez
R&M Service Solutions, LLC.	X	Nov 6, 2025 9:10 AM	Mike George

Addendum #4

Proposal	Confirmed	Confirmed At	Confirmed By
Southeastern Engineering Contractors, Inc.	X	Oct 23, 2025 10:31 AM	Eduardo Dominguez
R&M Service Solutions, LLC.	X	Nov 6, 2025 9:10 AM	Mike George

Addendum #5

Proposal	Confirmed	Confirmed At	Confirmed By
Southeastern Engineering Contractors, Inc.	X	Oct 23, 2025 10:31 AM	Eduardo Dominguez
R&M Service Solutions, LLC.	X	Nov 6, 2025 9:10 AM	Mike George



City of Hollywood
Public Utilities
Vincent Morello, Director
2600 Hollywood Boulevard, Hollywood, FL 33020

[R&M SERVICE SOLUTIONS, LLC.] RESPONSE DOCUMENT REPORT

IFB No. IFB-347-25-JJ

Large User Meter Replacement

RESPONSE DEADLINE: November 6, 2025 at 3:00 pm

Report Generated: Thursday, January 8, 2026

R&M Service Solutions, LLC. Response

CONTACT INFORMATION

Company:

R&M Service Solutions, LLC.

Email:

mgeorge@rmservicesolutions.com

Contact:

Mike George

Address:

11820 Uradco Place

#103

San Antonio, FL 33576

Phone:

(352) 398-9127

Website:

<https://www.rmservicesolutions.com/>

Submission Date:

Nov 6, 2025 12:35 PM (Eastern Time)

ADDENDA CONFIRMATION

Addendum #1

Confirmed Oct 20, 2025 2:11 PM by Mike George

Addendum #2

Confirmed Oct 20, 2025 2:11 PM by Mike George

Addendum #3

Confirmed Nov 6, 2025 9:10 AM by Mike George

Addendum #4

Confirmed Nov 6, 2025 9:10 AM by Mike George

Addendum #5

Confirmed Nov 6, 2025 9:10 AM by Mike George

QUESTIONNAIRE

1. VENDOR REFERENCE FORM*

Please download the below documents, complete, and upload. Reference forms are to be completed by your vendor reference. They must be sent back to you to be uploaded with your bid response. A minimum of three (3) references are required.

- [Vendor Reference Form.pdf](#)

Vendor_Reference_Form_from_Ocala.pdf

Vendor_Reference_Form_from_Brevard.pdf

Vendor_Reference_Form_from_LBK.pdf

2. HOLD HARMLESS AND INDEMNITY CLAUSE*

I, an authorized representative, the contractor, shall indemnify, defend and hold harmless the City of Hollywood, its elected and appointed officials, employees and agents for any and all suits, actions, legal or administrative proceedings, claims, damage, liabilities, interest, attorney's fees, costs of any kind whether arising prior to the start of activities or following the completion or acceptance and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part by reason of any act, error or omission, fault or negligence whether active or passive by the contractor, or anyone acting under its direction, control, or on its behalf in connection with or incident to its performance of the contract.

Confirmed

3. NON-COLLUSION STATEMENT*

I, being first duly sworn, depose that:

- A. He/she is an authorized representative of the Company, the Proposer that has submitted the attached Proposal.
- B. He/she has been fully informed regarding the preparation and contents of the attached Proposal and of all pertinent circumstances regarding such Proposal;
- C. Such Proposal is genuine and is not a collusion or sham Proposal;
- D. Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Proposer, firm or person to submit a collusive or sham Proposal in connection with the contractor for which the attached Proposal has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Proposer, firm or person to fix the price or prices, profit or cost element of the Proposal price or the Proposal price of any other Proposer, or to secure an advantage against the City of Hollywood or any person interested in the proposed Contract; and
- E. The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Confirmed

4. CERTIFICATIONS REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS*

The applicant certifies that it and its principals:

- A. Are not presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of Federal benefits by a State or Federal court, or voluntarily excluded from covered transactions by any Federal department or agency;
- B. Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction, violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- C. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- D. Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default.

Confirmed

5. DRUG-FREE WORKPLACE PROGRAM*

- A. IDENTICAL TIE PROPOSALS - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie proposals will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:
 - 1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employee that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program (if such is available in the employee's community) by, any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of these requirements.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Confirmed

6. SOLICITATION, GIVING, AND ACCEPTANCE OF GIFTS POLICY *

Florida Statute 112.313 prohibits the solicitation or acceptance of Gifts. "No Public officer, employee of an agency, local government attorney, or candidate for nomination or election shall solicit or accept anything of value to the recipient, including a gift, loan, reward, promise of future employment, favor, or service, based upon any understanding that the vote, official action, or judgment of the public officer, employee, local government attorney, or candidate would be influenced thereby." The term "public officer" includes "any person elected or appointed to hold office in any agency, including any person serving on an advisory body."

The City of Hollywood/Hollywood CRA policy prohibits all public officers, elected or appointed, all employees, and their families from accepting any gifts of any value, either directly or indirectly, from any contractor, vendor, consultant, or business with whom the City/CRA does business.

The State of Florida definition of "gifts" includes the following:

- Real property or its use,
- Tangible or intangible personal property, or its use,
- A preferential rate or terms on a debt, loan, goods, or services,
- Forgiveness of indebtedness,
- Transportation, lodging, or parking,
- Food or beverage,
- Membership dues,
- Entrance fees, admission fees, or tickets to events, performances, or facilities,
- Plants, flowers or floral arrangements
- Services provided by persons pursuant to a professional license or certificate.
- Other personal services for which a fee is normally charged by the person providing the services.
- Any other similar service or thing having an attributable value not already provided for in this section.

Any contractor, vendor, consultant, or business found to have given a gift to a public officer or employee, or his/her family, will be subject to dismissal or revocation of contract.

As the person authorized to sign the statement, I certify that this firm will comply fully with this policy.

Confirmed

7. Certificate of Insurance*

See requirements in the [#SPECIAL TERM AND CONDITIONS](#) section.

COI_Hollywood_Public_Uilities_Revised_08192025.pdf

BLANK_SAMPLE_Nitsche_COI_w_Pollution.pdf

8. PROOF OF SUNBIZ REGISTRATION*

Enter company FEIN to be verified in Sunbiz

27-1422665

[Click to Verify](#) *Value will be copied to clipboard*

9. ACKNOWLEDGMENT AND SIGNATURE PAGE

IF CORPORATION - DATE INCORPORATED/ORGANIZED:*

11/2009

STATE INCORPORATED/ORGANIZED:*

Florida

REMITTANCE ADDRESS*

Tammy Jones
Staff Accountant
R & M Service Solutions, LLC.
7256 Westport Place Suite A
West Palm Beach, FL 33413
817-661-9922
tjones@rangeline.com

BIDDER/PROPOSER'S AUTHORIZED REPRESENTATIVE'S TYPED FULL NAME*

Michael George

IT IS HEREBY CERTIFIED AND AFFIRMED THAT THE BIDDER/PROPOSER CERTIFIES ACCEPTANCE OF THE TERMS, CONDITIONS, SPECIFICATIONS, ATTACHMENTS AND ANY ADDENDA. THE BIDDER/PROPOSER SHALL ACCEPT ANY AWARDS MADE AS A RESULT OF THIS SOLICITATION. BIDDER/PROPOSER FURTHER AGREES THAT PRICES QUOTED WILL REMAIN FIXED FOR THE PERIOD OF TIME STATED IN THE SOLICITATION.*

Confirmed

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF BIDDER/PROPOSER TO BE BOUND BY THE TERMS OF ITS PROPOSAL. FAILURE TO SIGN THIS SOLICITATION WHERE INDICATED BY AN AUTHORIZED REPRESENTATIVE SHALL RENDER THE BID/PROPOSAL NON-RESPONSIVE. THE CITY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY BID/PROPOSAL THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE BIDDER/PROPOSER TO THE TERMS OF ITS OFFER.*

Confirmed

BID FORM*

Please download the below documents, complete, and upload.

- [Bid Form MASTER.docx](#)

Bid_Form_MASTER_5Percent_Submittal_11062025.pdf

10. SWORN STATEMENT PURSUANT TO SECTION 287.133 (3) (a) FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

THIS FORM STATEMENT IS SUBMITTED TO THE CITY OF HOLLYWOOD BY:*

(Print individual's name and title) (Print name of entity submitting sworn statement)

Michael George, General Manager/Owner

SWORN STATEMENT CONTINUATION:*

Enter business address:

11820 Uradco Place, Suite 103, San Antonio, FL 33576

SWORN STATEMENT CONTINUATION:*

Enter Federal Employer Identification Number (FEIN) is:

If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.

27-1422665

SWORN STATEMENT CONTINUATION:*

I understand that “convicted” or “conviction” as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in an federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

I understand

SWORN STATEMENT CONTINUATION:*

I understand that “Affiliate,” as defined in paragraph 287.133(1)(a), Florida Statutes, means:

1. A predecessor or successor of a person convicted of a public entity crime, or
2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term “affiliate” includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm’s length agreement, shall be a prima facie case that

one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

Confirmed

SWORN STATEMENT CONTINUATION:*

I understand that “person,” as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or any entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity.

The term “person” includes those officers, executives, partners, shareholders, employees, members, and agents who are active in management of an entity

Confirmed

SWORN STATEMENT CONTINUATION:*

Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

Division of Administrative Hearings, determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (attach a copy of the Final Order).

Neither the entity submitting sworn statement, nor any of its officers, director, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

SWORN STATEMENT CONFIRMATION*

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER

FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THAT PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017 FLORIDA STATUTES FOR A CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

Confirmed

PRICE TABLES

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
1	7.5% Bonds and Insurance (of Subtotal)	1	EA	\$31,536.94	\$31,536.94
2	2% Mobilization (of Subtotal)	1	EA	\$8,409.85	\$8,409.85
3	Indemnification (\$10.00)	1	EA	\$10.00	\$10.00
4	Electrical Permit Fees Allowance - Pembroke Pines, Miramar, Hollywood (\$10,000.00)	1	AL	\$10,000.00	\$10,000.00
5	15% Contingency (of Subtotal)	1	AL	\$63,073.88	\$63,073.88
Lum-BC-01					
6	Furnish and Install 16" ABB Meter Assembly	1	EA	\$51,594.764	\$51,594.764
7	Install Sump and Associated Piping	1	LS	\$1,270.26	\$1,270.26

[R&M SERVICE SOLUTIONS, LLC.] RESPONSE DOCUMENT REPORT
IFB No. IFB-347-25-JJ
Large User Meter Replacement

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
8	Raise Electrical Panel 30" Above Existing Ground	1	LS	\$7,500.00	\$7,500.00
LUM-03					
9	Furnish and Install 8" ABB Meter Assembly	1	EA	\$18,818.176	\$18,818.176
10	Install Sump and Associated Piping	1	EA	\$1,270.26	\$1,270.26
11	Add 4" Curb Around Structure	10	LF	\$130.40	\$1,304.00
12	Add 2' of Grade Around Structure	20	SF	\$250.00	\$5,000.00
13	Remove Roots from Inside Vault	1	EA	\$642.06	\$642.06
14	Repair Concrete Wall in Areas that are Spalling	1	EA	\$1,367.44	\$1,367.44
15	Install New Vault Door Hinge	1	EA	\$481.57	\$481.57
LUM-03B					
16	Furnish and Install 12" ABB Meter Assembly	1	EA	\$31,430.93	\$31,430.93
17	Install Sump and Associated Piping	1	EA	\$1,270.26	\$1,270.26
18	Fix Locking Mechanism on a Control Panel	1	EA	\$481.57	\$481.57
19	Raise Electrical Panel 30" above Existing Ground	1	EA	\$7,500.00	\$7,500.00
LUM-05					
20	Furnish and Install 12" ABB Meter Assembly	1	EA	\$31,430.932	\$31,430.932

[R&M SERVICE SOLUTIONS, LLC.] RESPONSE DOCUMENT REPORT
 IFB No. IFB-347-25-JJ
 Large User Meter Replacement

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
21	Install Sump and Associated Piping	1	EA	\$1,270.26	\$1,270.26
22	Raise Electrical Panel 30" Above Existing Ground	1	EA	\$7,500.00	\$7,500.00
23	Remove Any Water from Inside of Vault	1	EA	\$1,079.12	\$1,079.12
LUM-06					
24	Furnish and Install 12" ABB Meter Assembly	1	EA	\$31,430.93	\$31,430.93
25	Install Sump and Associated Piping	1	EA	\$1,270.26	\$1,270.26
LUM-08					
26	Furnish and Install 10" ABB Meter Assembly	1	EA	\$25,799.098	\$25,799.098
27	Install Sump and Associated Piping	1	EA	\$1,270.26	\$1,270.26
28	Raise Electrical Panel 30" Above Existing Ground	1	EA	\$7,500.00	\$7,500.00
29	Rain Guard Inserted on Manhole to Prevent Flooding Vault	1	EA	\$436.70	\$436.70
LUM-09					
30	Furnish and Install 16" ABB Meter Assembly	1	EA	\$51,594.764	\$51,594.764
31	Install Sump and Associated Piping	1	EA	\$1,270.26	\$1,270.26
32	Install New Conduit Wiring from Panel to Lift Station	10	EA	\$1,890.00	\$18,900.00
LUM-11					

[R&M SERVICE SOLUTIONS, LLC.] RESPONSE DOCUMENT REPORT
 IFB No. IFB-347-25-JJ
 Large User Meter Replacement

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
33	Furnish and Install 12" ABB Meter Assembly	1	EA	\$31,430.932	\$31,430.932
34	Install Sump and Associated Piping	1	EA	\$1,270.26	\$1,270.26
LUM-12					
35	Furnish and Install 20" ABB Meter Assembly	1	EA	\$75,676.71	\$75,676.71
36	Install Sump and Associated Piping	1	EA	\$1,270.26	\$1,270.26
37	Clean Vault Hatch Grooves	1	EA	\$160.51	\$160.51
SUBTOTAL					
GRAND TOTAL BID PRICE					
TOTAL					\$533,523.216

VENDOR REFERENCE FORM

City of Hollywood Solicitation #: IFB-347-25-JJ Large User Meter Replacement
Reference for: R&M Service Solutions, LLC.

Organization/Firm Name providing
reference:

Brevard County

Organization/Firm Contact

Name:

Brian Sorensen

Email:

brian.sorensen@BrevardFL.gov

Name of Referenced Project:

Piggyback Town of Longboat Key

Date Services were provided:

Brevard Offer Signed 03/05/2025
Longboat Key Approved 01/03/2025
3-years with 2 optional renewals

Title:

Water/Wastewater Program Manager

Phone: 321-633-2091

Contract No: IFB 24-091

Project

Amount: \$1,000,000.00/Year

Referenced Vendor's role in
Project:

☒ Prime Vendor

☐ Subcontractor/
Subconsultant

Would you use the Vendor
again?

☐ Yes

☐ No. Please specify in additional
comments

Description of services provided by Vendor (provide additional sheet if necessary):

Qualified, licensed contractors and certified underground utility contractors for fire hydrant projects at various locations throughout Brevard Co (including associated fittings, restraints, and pipe) on an "as needed" basis and at locations to be determined within the County's utility system

Please rate your experience with the Vendor	Need Improvement	Satisfactory	Excellent	Not Applicable
Vendor's Quality of Service				
a. Responsive	☐	☐	☒	☐
b. Accuracy	☐	☐	☒	☐
c. Deliverables	☐	☐	☒	☐
Vendor's Organization:				
a. Staff expertise	☐	☐	☒	☐
b. Professionalism	☐	☐	☒	☐
c. Staff turnover	☐	☐	☒	☐
Timeliness/Cost Control of:				
a. Project	☐	☐	☒	☐
b. Deliverables	☐	☐	☒	☐

Additional Comments (provide additional sheet if necessary):

****THIS SECTION FOR CITY USE ONLY****					
Verified via:	Email:	☐	Verbal:	☐	Mail: ☐
Verified by:	Name:				Title:
	Department:				Date:

VENDOR REFERENCE FORM

City of Hollywood Solicitation #: IFB-347-25-JJ Large User Meter Replacement

Reference for: R&M Service Solutions, LLC.

Organization/Firm Name providing reference:

Town of Longboat Key

Organization/Firm Contact

Name:

Richard Walters

Title:

Water Treatment Operator

Email:

rwalters@longboatkey.org

Phone:

941-316-1988

Name of Referenced Project:

Fire Hydrant Maint, Repair, Replacment

Contract No:

IFB 24-091

Date Services were provided:

Longboat Key Approved 01/03/2025
3-years with 2 optional renewals

Project

Amount: \$974,464.00

Referenced Vendor's role in Project:



Prime Vendor



Subcontractor/
Subconsultant

Would you use the Vendor again?



Yes



No. Please specify in additional comments

Description of services provided by Vendor (provide additional sheet if necessary):

Qualified, licensed contractors and certified underground utility contractors for fire hydrant projects at various locations throughout Longboat Key (including associated fittings, restraints, and pipe) on an "as needed" basis and at locations to be determined within the Town's utility system

Please rate your experience with the Vendor	Need Improvement	Satisfactory	Excellent	Not Applicable
Vendor's Quality of Service				
a. Responsive	☐	☐	☒	☐
b. Accuracy	☐	☐	☒	☐
c. Deliverables	☐	☐	☒	☐
Vendor's Organization:				
a. Staff expertise	☐	☐	☒	☐
b. Professionalism	☐	☐	☒	☐
c. Staff turnover	☐	☒	☐	☐
Timeliness/Cost Control of:				
a. Project	☐	☐	☒	☐
b. Deliverables	☐	☐	☒	☐

Additional Comments (provide additional sheet if necessary):

Mike and his staaff are very responsive and knowlegeable

****THIS SECTION FOR CITY USE ONLY****

Verified via:	Email:	☐	Verbal:	☐	Mail:	☐
Verified by:	Name:				Title:	
	Department:				Date:	

VENDOR REFERENCE FORM

City of Hollywood Solicitation #: IFB-347-25-JJ Large User Meter Replacement
Reference for: R&M Service Solutions, LLC.

Organization/Firm Name providing
reference:

City of Ocala Water Resources

Organization/Firm Contact

Title:

Name:

Stacey Ferrante

Infrastructure Manager

Email:

sferrante@ocalafl.gov

Phone:

352-351-6772

Name of Referenced Project:

Piggyback Tarpon Springs

Contract No:

ITB 240055-B-AS

Date Services were provided:

City of Ocala 08/29/2024

Project

Tarpon Springs 05/07/2024-05/06/2027

Amount:

\$600,000.00/Year

3 Year Agreement 05/07/2024-05/06/2027

includes one (1) 2-Year Renewal Option

Referenced Vendor's role in
Project:



Prime Vendor



Subcontractor/
Subconsultant

Would you use the Vendor
again?



Yes



No. Please specify in additional
comments

Description of services provided by Vendor (provide additional sheet if necessary):

Underground Utility Rehabilitation and Construction Services

Water service line replacement, Sewer ARV maintainance ,Hydrant and valve Maintainance

Please rate your experience with the Vendor	Need Improvement	Satisfactory	Excellent	Not Applicable
Vendor's Quality of Service				
a. Responsive	☐	☐	☒	☐
b. Accuracy	☐	☐	☒	☐
c. Deliverables	☐	☐	☒	☐
Vendor's Organization:				
a. Staff expertise	☐	☐	☒	☐
b. Professionalism	☐	☐	☒	☐
c. Staff turnover	☐	☐	☒	☐
Timeliness/Cost Control of:				
a. Project	☐	☐	☒	☐
b. Deliverables	☐	☐	☒	☐

Additional Comments (provide additional sheet if necessary):

****THIS SECTION FOR CITY USE ONLY****

Verified via:	Email:	☐	Verbal:	☐	Mail:	☐
Verified by:	Name:				Title:	
	Department:				Date:	

Form 13

Bond Form

(Construction)

STATE OF FLORIDA

KNOW ALL MEN BY THESE PRESENTS:

That we R&M Service Solutions, LLC., as Principal, and SiriusPoint of America, as
Insurance Company
Surety, are held and firmly bound unto the City of Hollywood in the sum of Five-Percent
of Greatest Amount Bid Dollars (\$ 5% GAB) lawful money
of the United States, amounting to 5% of the total SOLICITATION 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 SOLICITATION, dated November 06, 2025 ~~20~~ for

Solicitation #: **XX-XXX-XX** IFB-347-25-JJ

Solicitation Title: **XXXXXX** Large User Meter Replacement

NOW, THEREFORE, if the principal shall not withdraw said SOLICITATION 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 SOLICITATION 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 Solicitation Bond

In the event of the withdrawal of said SOLICITATION 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 SOLICITATION 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 SOLICITATION.

In accordance with Florida State Statute 255.05, Payment, Performance and Bid Bonds may be required for construction projects that are over \$200,000.00.

IN WITNESS WHEREOF, the above bound parties have executed this statement under their seal(s) this 6th
day of November, 2025, 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

N/A
Signature of Individual

N/A
Address

N/A
Printed Name of Individual

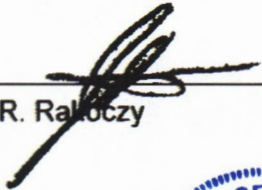
N/A
Witness

N/A
Address

Approved Solicitation Bond

WHEN THE PRINCIPAL IS A CORPORATION:

Attest:



John R. Rakoczy



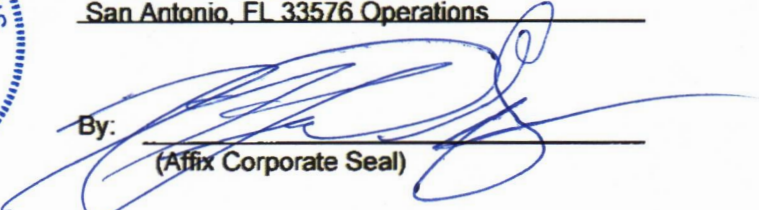
R&M Service Solutions, LLC.

Name of Corporation (Limited Liability Company)

7256 Westport Place, Suite A,
West Palm Beach, FL 33413 Corporate

Business Address

11820 Uradco Place, Suite 103,
San Antonio, FL 33576 Operations

By: 

(Affix Corporate Seal)

Michael George

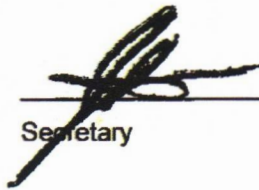
Printed Name

General Manager/Owner

Official Title

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, John R. Rakoczy, certify that I am the secretary of the Corporation named as Principal in the attached bond; that Michael George who signed the said bond on behalf of the Principal, was then General Manager /Owner 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)

Approved Solicitation Bond

TO BE EXECUTED BY CORPORATE SURETY:

Attest:

Danella Anson
Witness



BY: _____
(Affix Corporate Seal)

SiriusPoint America Insurance Company

Corporate Surety
1 World Trade Center 285 Fulton Street

Business Address
47th Floor, Suite 47J, New York, NY 10007

Kyle F. Fuller

Attorney-in-Fact Kyle F. Fuller, Attorney-in-Fact & FL Resident Agent

Name of Local Agency

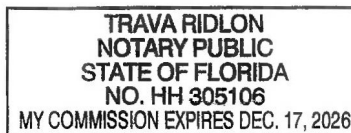
M.E. Wilson, LLC dba Waldorff Insurance & Bonding

Business Address

1110 NW 6th Street, Gainesville, FL 32601

STATE OF FLORIDA

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared,
Kyle F. Fuller to me well known, who being by me first duly sworn upon
oath says that he is the attorney-in-fact for the SiriusPoint America Insurance Company and
that the has been authorized by SiriusPoint America Insurance Company 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 6 day of Nov., 2025



Trava Ridlon

Notary Public, State of Florida

My Commission Expires: 12/17/26

- END OF SECTION-

**POWER OF ATTORNEY
SIRIUSPOINT AMERICA INSURANCE COMPANY
NEW YORK**

WALFWB01_0523

KNOW ALL MEN BY THESE PRESENTS: That SiriusPoint America Insurance Company (the "Company"), a New York corporation, having its principal office in the City of New York, pursuant to the following Resolution, which was adopted on August 27, 2024 by Unanimous Written Consent of the Board of the Directors of the Company, to wit:

RESOLVED, that the President, Senior Vice President, Chief Financial Officer, Secretary or the Assistant Secretary is hereby authorized to execute Powers of Attorney appointing as attorneys-in-fact selected employees of certain surety companies who shall have the power for and on behalf of the Company to execute and affix the seal of the Company to surety contracts as co-surety.

Does hereby nominate, constitute and appoint:

Benjamin H. French, Brenda Waldorff Neill, L. Dale Waldorff, Rebekah F. Sharp, Trava Ridlon, William Scott Neill, Kyle F. Fuller, Heather Hudgins, J.E.S. Webb

Its true and lawful agent and attorney-in-fact, to make, execute, seal and deliver for and on its behalf, and its act and deed any and all bonds, contracts, agreements of indemnity and other undertakings in suretyship (NOT INCLUDING bonds without a fixed penalty or financial guarantee) and to bind the Company thereby as fully and to the same extent as of same were signed by the duly authorized officers of the Company, provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

\$62,687,000 single bond limit

All acts of said attorneys-in-fact pursuant to the authorities herein given are hereby ratified and confirmed. The President, Senior Vice President, Chief Financial Officer, Secretary or Assistant Secretary may from time to time and at any time remove such appointee and remove the power given to him or her.

The execution of such bonds or undertakings in pursuance of these presents, within one year of the date of these present, shall be binding under said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in New York, New York, in their own proper persons.

IN WITNESS WHEREOF, SiriusPoint America Insurance Company has caused its corporate seal to be hereunto affixed and these presents to be signed by its President this tenth day of October, 2024.

SiriusPoint America Insurance Company

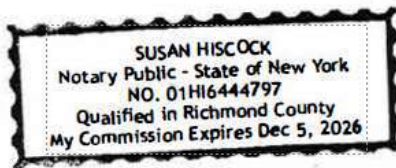


State of New York
County of New York

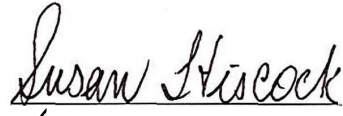

Paul Mihulka
President

On this tenth day of October 2024, before me a Notary Public of the State of New York, in and for the County of New York, duly commissioned and qualified, came Paul Mihulka, President, of SiriusPoint America Insurance Company, to me personally known to be the individual and officer described in, and who executed the preceding instrument, and acknowledged the execution of the same, and being by me duly sworn, deposed and said that he is the officer of the said Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and the said Corporate seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Company, referred to in the preceding instrument is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal.



STATE OF New York
COUNTY OF New York


Notary Public
My Commission expires Dec. 5, 2026

I, Paul Mihulka, President of SiriusPoint America Insurance Company, a New York corporation, do hereby certify that the above and foregoing is a full, true and correct copy of Power of Attorney, is still in full force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand, and affixed the Seal of said Company, on the 6 day of November, 2025




Paul Mihulka
President

ACORD™

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

8/19/2025

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

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

PRODUCER The Nitsche Group 143 East Austin Giddings, TX 78942-3299 979 542-3666		CONTACT NAME: Joyce Hinze PHONE (A/C, No, Ext): 979 540 2240 FAX (A/C, No): E-MAIL ADDRESS: JoyceH@TheNitscheGroup.com															
INSURED R&M Service Solutions, LLC 7256 Westport PI West Palm Beach, FL 33413		<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A : Transportation Insurance Company</td> <td>20494</td> </tr> <tr> <td>INSURER B : Continental Insurance Company</td> <td>35289</td> </tr> <tr> <td>INSURER C : Travelers Property Casualty Co of Am</td> <td>25674</td> </tr> <tr> <td>INSURER D : Evanston Insurance Company</td> <td>35378</td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Transportation Insurance Company	20494	INSURER B : Continental Insurance Company	35289	INSURER C : Travelers Property Casualty Co of Am	25674	INSURER D : Evanston Insurance Company	35378	INSURER E :		INSURER F :	
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INSURER F :																	

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

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

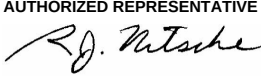
INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☒ LOC OTHER:			8033477016	07/21/2025	07/21/2026	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$15,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
B	AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☐ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS NON-OWNED AUTOS ONLY			BUA8033476545	07/21/2025	07/21/2026	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	☒ UMBRELLA LIAB ☒ EXCESS LIAB ☐ DED ☒ RETENTION \$10,000			8033477968	07/21/2025	07/21/2026	EACH OCCURRENCE \$3,000,000 AGGREGATE \$3,000,000 \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☒ Y ☒ N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WC833483799	07/21/2025	07/21/2026	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
C	Equipment Floater			660B6849243TIL25	07/21/2025	07/21/2026	Leased/Rented \$250,000
D	Pollution			CPLMOL131445	05/09/2025	05/09/2027	\$1,000,000 Per Occ.

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

As per policy provision, Certificate Holder is listed as additional insured in regard to the auto and general liability policies as provided by additional insured endorsement when required by written contract. A waiver of subrogation endorsement is provided to the Certificate Holder in regard to the auto, general (See Attached Descriptions)

CERTIFICATE HOLDER

CANCELLATION

City of Hollywood Public Utilities 1715 N 21 Ave Hollywood, FL 33020	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
---	--

DESCRIPTIONS (Continued from Page 1)

liability and workers compensation policies when required by written contract.

ATTACHMENT A
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

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:

**Large User Meter Replacement
Project No. 24-7117**

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

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 Sections 2s18.735 and 255.078, Florida Statutes, as applicable.
- (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:

1.	Introduction	15.	General Terms and Conditions
2.	Special Terms and Conditions	16.	Scope of Services
3.	Submittal Checklist Form	17.	Contract
4.	Acknowledgement and Signature Page	18.	Drug-Free Workplace Program
5.	Bid Form	19.	Solicitation, Giving, and Acceptance...
6.	Vendor Reference Form	20.	W-9 (Request for Taxpayer Identification)
7.	Hold Harmless and Indemnity Clause	21.	Performance Bond
8.	Proposal	22.	Payment Bond
9.	Non-Collusion Affidavit	23.	General Conditions, Public Utilities
10.	Sworn Statement...Public Entity Crimes	24.	Supplementary General Conditions
11.	Information Required from Bidders	25.	Addenda
12.	Certifications Regarding Debarment...	26.	Specifications
13.	Trench Safety Form	27.	Drawings
14.	Bid Guaranty Form	28.	List of Subcontractors

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.

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:

APPROVED AS TO FINANCE:

By _____
Damaris Henlon
Interim City Attorney

By _____
Stephanie Tinsley
Financial Services Director

CERTIFICATE

(STATE OF _____)
(COUNTY OF _____)

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 -

ATTACHMENT A
PERFORMANCE 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 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 **Large User Meter Replacement, Project No. 24-7117**.

A copy of said Contract, **No. 24-7117** 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 Introduction, Special Terms and Conditions, Scope of Services, General Terms & Conditions, Submittal Checklist Form, Instructions to Bidders, Proposal, Proposal Bid Form, Basis of Payment, Bid Guaranty Form, Trench Safety Form, Information Required from Bidders, Vendor Reference Forms, Hold Harmless and Indemnity Clause, Non-Collusion Affidavit, Sworn Statement...Public Entity Crimes, Certifications Regarding Debarment... , Drug-Free Workplace Program, Solicitation, Giving, and Acceptance..., 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:

APPROVED AS TO FINANCE:

By _____
Damaris Henlon
City Attorney

By _____
Stephanie Tinsley
Financial Services Director

- END OF SECTION -

ATTACHMENT A
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 **Large User Meter Replacement, Project No. 24-7117.**

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:	APPROVED AS TO FINANCE:
---	-------------------------

By _____	By _____
Damaris Henlon	Stephanie Tinsley
City Attorney	Financial Services Director

- END OF SECTION -

ATTACHMENT B
GENERAL CONDITIONS, PUBLIC UTILITIES

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**ATTACHMENT B
GENERAL CONDITIONS, PUBLIC UTILITIES**

**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.

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 Public 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.

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.

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.

SPECIFICATIONS - Division 1 through 17 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 2.13 in Section II - Special Terms and Conditions, 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 mandatory 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 Attachment C – Supplementary General Conditions, Section 1, Project Schedule as modified by any subsequent Change Orders, Unless the CONTRACTOR fails to complete the requirements of Section II - Special Terms and Conditions, 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 Attachment C - Supplementary General Conditions 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 40 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 in order 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. Section I - Introduction
3. Section II – Special Terms and Conditions
4. General Terms & Conditions
5. Attachment C- Supplementary General Conditions
6. Attachment B - General Conditions
7. Division 1, General Requirements
8. Technical Specifications
9. 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 SECTION II - SPECIAL TERMS AND CONDITIONS. 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 specified in Article 2.25 of Section II – Special Terms and Requirements 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.

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 POINTS

6.1 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 2.16 of the Section II – Special Terms and Conditions, 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) Refer to ARTICLE 1.46 – INDEMNIFICATION AND HOLD HARMLESS AGREEMENT of Section IV – General Terms and Conditions.
- (b) Refer to ARTICLE 1.47 – PATENT AND COPYRIGHT INDEMNIFICATION of Section IV – General Terms and Conditions.
- (c) 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.

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 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, in so far 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 Bid Form 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 Bid Form. 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.

9.5 Inspections:

- 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, Field Orders, 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 Field Orders / 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 Field Orders 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 Field Order 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. Field 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" and "Field Orders" with the exception that Field 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 anyone 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.

12.8 City 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, templates, 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 2.13 of the Section II – Special Terms and Conditions. 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 can not 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 5%.

13.8 Retainage:

The amount of retainage with respect to progress payments will be 5% until completion of the construction services purchased pursuant to the Contract, as more specifically set forth in the Article 3 of the main contract entitled "Partial and Final Payment".

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 ten (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 sixty (60) 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 TERMINATION

15.1 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 ninety (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 ninety (90) days by the CITY or under an order of court or other public authority, or the CITY fails for sixty (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 -

ATTACHMENT C
SUPPLEMENTARY GENERAL CONDITIONS
INDEX TO ARTICLES

1. Project Schedule	00800-2
2. Insurance Requirements (Not Used)	00800-3
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13. Owner's Contingency (Not Used)	00800-8

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 (Calendar Days)	Liquidated Damages (Per Day)
Substantial Completion	300	\$500.00
Project Closeout	365	\$500.00

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.

⁽¹⁾Substantial Completion

1. Refer to Attachment B - 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 completion of punch list items. "Completion of punch list items" shall be as determined by the Engineer in the field.
 - Coating touchup completed.
 - Record shop drawings and O&M submittals received and accepted by the Engineer.
 - Record drawing red-lines received and accepted by the Engineer.
 - 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.

⁽²⁾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 sitework 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 (Not Used. Refer to ARTICLE 2.25 of SECTION II – SPECIAL TERMS AND CONDITIONS OF THE CONTRACT DOCUMENTS**

3. **Liquidated Damages**

Liquidated damages shall be paid by the CONTRACTOR to the CITY for failure to complete work on time in accordance with the following schedule:

CONSTRUCTION/STARTUP/ACCEPTANCE:		
<u>Major Milestones</u>	<u>Completion Time (calendar days)</u>	<u>Liquidated Damages (Per Day)</u>
1. Substantial Completion	300	\$500.00
2. Project Closeout	365	\$500.00

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 \$500.00/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 SUB-CONTRACTORS 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 three (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

After Substantial Completion of the construction services purchased pursuant to this contract, CONTRACTOR may present to CITY a payment request for one-half of the retainage then held by CITY. 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)

This allowance is in its entirety dedicated for the use of the Owner (The City of Hollywood) to address conditions (or work) associated with undefined conditions. All work resulting from undefined conditions shall be authorized in writing and in advance by the Owner, specifically the Director of Public Services, through the full execution of a Field Order. The actual amount to be paid per Field Order will be negotiated and agreed by both parties (the Owner and the Contractor). The final/negotiated amount of the field order will be deducted from the Owner's Allowance designated in the Bid Proposal and Schedule of Values. The Owner reserves the right to award none, any portion of, or all of the money associated with this allowance. By executing the CONTRACT between the City of Hollywood and the Contractor, the Contractor acknowledges that under no circumstances he or she should assume that he or she would be entitled to any amounts set aside by the City of Hollywood within the Owner's Allowance.

CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT:

ENGINEER: Engineering Support Services Division

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.

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.

City of Hollywood - ESSD

ENGINEER

BY

DATE

CONTRACTOR

BY

DATE

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).

BY

DATE

- END OF SECTION -

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CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC UTILITIES LARGE METER REPLACEMENT 24-5142

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PART 1 -- GENERAL

1.01 THE REQUIREMENT

- A. The work to be performed under this Contract shall consist of furnishing all tools, equipment, materials, supplies, and manufactured articles and for furnishing all transportation and services, including fuel, power, water, and essential communications, and for the performance of all labor, work, or other operations 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. Prior to construction, the CONTRACTOR shall locate and verify potential existing utilities in their working area. The utility verifications consist of excavation to verify tie-in points and to locate potential conflicts that may affect the work. The CONTRACTOR shall be responsible for the coordination of this work with the associated utility owners and permitting agencies having jurisdiction over the specific locations to be verified

1.02 SCOPE

- A. The scope of work under this contract includes the replacement of ten (10) large user meters in Hollywood, Florida, as outlined below:
 - 1. **LUM-BC-01 (5500 Stirling Road):** Replacement of a 16" ABB meter assembly, replacement of sump and associated piping, and raising of the electric panel by 30" above ground level.
 - 2. **LUM-03 (3350 Pembroke Road):** Replacement of an 8" ABB meter assembly, replacement of sump and associated piping, the addition of a 4" curb and 2' of grading around the structure, removal of roots from inside of the vault, repair of the concrete wall in areas that are spalling, and repair of the vault door hinge.
 - 3. **LUM-03B (5400 Pembroke Road):** Replacement of a 12" ABB meter assembly, replacement of sump and associated piping, repair of the locking mechanism on the control panel, and raising of the electrical panel by 30" above existing ground level.
 - 4. **LUM-05 (2073 N 14th Ave):** Removal of any water inside the vault, replacement of a 12" ABB meter assembly, replacement of sump and associated piping, and raising of the electrical panel by 30" above existing ground level.
 - 5. **LUM-06 (3500 NW 76th Ave):** Replacement of a 12" ABB meter assembly, replacement of sump and associated piping.
 - 6. **LUM-08 (1615 S 22nd Ave):** Replacement of a 10" ABB meter assembly, replacement of sump and associated piping, addition of a rain guard on the manhole, and raising of the electrical panel by 30" above existing ground level.
 - 7. **LUM-09 (1112 S 14th Ave):** Replacement of a 16" ABB meter assembly, replacement of sump and associated piping, and installation of new conduit wiring from the panel to the lift station.
 - 8. **LUM-10 (1200 Three Islands Boulevard):** Removal of any water inside the vault, replacement of a 10" ABB meter assembly, replacement of sump and associated piping.

**SECTION 01010
SUMMARY OF WORK**

- 9. LUM-11 (6900 Miramar Parkway):** Replacement of a 8" ABB meter assembly, replacement of sump and associated piping.
- 10. LUM-12 (7342 Taft St, Pembroke Pines):** Replacement of a 20" ABB meter assembly, replacement of sump and associated piping.

This scope involves comprehensive meter assembly replacements, sump and piping work, electrical panel adjustments, and other required improvements to ensure the functionality and safety of the large user meters at each location.

The Contractor agrees to cooperate and work with the City of Hollywood Utilities Department.

- B. Work shall only be implemented by CONTRACTOR with the prior written approval (Notice to Proceed, Purchase Order or Work Order) from CITY.
- C. The Work to be performed consists of furnishing all labor, tools, materials, supplies, machinery, essential communications, equipment, transportation, services and incidentals required for as-needed construction services for drainage system improvements, including furnishing and installation of catch basins, frame and grate, storm water manholes, piping, plugs, French drains, exfiltration trenches, tidal valves, swales regrades, retention area, pipe lining, pervious pavements and appurtenances within the City of Hollywood service area, as well as any collateral damages, including but not limited to, pavement restoration, sod restoration and related restoration services in a competent, timely and professional manner. The CONTRACTOR shall perform work in accordance with all required permits.
- D. Dewatering activities and bypass pumping that may be required for installations are the responsibility of the Contractor. Discharge of dewatering liquids into the City's storm water drainage system is permitted providing the silt is removed via an appropriately sized settling box and returned via a filter bag or filter fabric over the return inlet. The return volume shall not exceed the storm water drainage system capacity, cause excess silting/clogging of the existing storm water system, or cause excess turbidity level in receiving waters. If silts/materials are deposited in the drainage system due to dewater activities, the contractor must remove the deposited materials at no additional cost to the City. Discharge of liquids generated by dewatering activities directly to bodies of water is not permitted.
- E. All Work shall be completed in accordance with the requirements of the solicitation documents, the City of Hollywood Public Utilities Department "Standard Details, Specifications Policies and Procedures for Water Distribution and Sewage Collection", all applicable local, state and Federal laws and regulations including the Occupational Safety and Health Act Administration of the U.S. Department of Labor (OSHA), including all costs of permits and cost of regulatory compliance.
- F. It is the intent of the CITY to obtain complete and working installations under this contract and any items of labor, materials, services or equipment, which may be reasonably be assumed as necessary to accomplish this end, should be supplied whether or not specifically or described herein. Maintenance of the existing utility systems is mandated throughout the construction period.
- G. Upon receipt of any work order, the CONTRACTOR shall evaluate the work site and determine whether any foreseeable item of expense is not covered by a pay item under this contract. If the

**SECTION 01010
SUMMARY OF WORK**

CONTRACTOR determines that any foreseeable item of expense is not covered by a pay item under this contract, the CONTRACTOR shall notify the CITY of this fact prior to initiation of the associated work and shall await authorization to proceed. In the event that no such prior notification is made and no such prior authorization is received, the CONTRACTOR will not be paid for the expense(s) in question. No after-the-fact change orders will be considered or approved.

- H. The CONTRACTOR shall perform all work in strict accordance with all applicable OSHA Standards. Particular attention is drawn to those safety requirements involving man entry in confined spaces. Prior to entering manholes and other confined spaces, the atmosphere shall be evaluated by the CONTRACTOR to determine the presence of toxic, flammable or explosive vapors or lack of oxygen in accordance with local, state, or federal safety regulations. CONTRACTOR shall follow all procedures outlined by OSHA's Confined Space Entry requirements.
- I. CONTRACTOR shall provide CITY with copies of supporting documentation, including written reports, permits, regulatory closeout documents and record drawings for each service performed under this contract.
- J. The CONTRACTOR shall warrant to the CITY that the equipment used on this Contract where covered by patents or license agreements is furnished in accordance with such agreements and that the prices included herein cover all applicable royalties and fees in accordance with such license agreements. The CONTRACTOR shall defend, indemnify and hold the CITY harmless from and against any and all costs, loss, damage or expense arising out of or in any way connected with any claim of infringement of patent, trademark or violation of license agreement.

1.03 WORK BY OTHERS

- A. The CONTRACTOR shall cooperate fully with all utility forces of the CITY, or other public or private agencies engaged in the relocation, altering, or otherwise rearranging any facilities which interfere with the progress of the work, and shall schedule the work so as to minimize interference with said relocation, altering, or rearranging of facilities.
- B. The CONTRACTOR'S attention is directed to the fact that work will 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.
- C. When two or more contracts are being executed at one time on the same or adjacent land in such manner that Work on one contract may interfere with that on another, the CITY shall determine the sequence and order of the Work. When the territory of one contract is the necessary or convenient means of access for the execution of another contractor, such privilege of access or any other reasonable privilege may be granted by the CITY to CONTRACTOR. No such decision as to the method or time of conducting the Work or the use of territory shall be made the basis of any claim for delay or damage.

1.04 LOCATION OF THE PROJECT

- A. The project is located Citywide.

1.05 CONTRACTOR FURNISHED MATERIAL AND EQUIPMENT

- A. All equipment, materials, or devices incorporated in this project shall be new and unused, unless indicated otherwise in the Contract Documents and shall be the products of reliable manufacturers who, unless otherwise specified, have been regularly engaged in the manufacture of such material and equipment for at least five (5) years. Procedures and additional requirements regarding manufacturer's experience and substitutions are included in Section 01300 - Submittals.

1.09 FIELD LAYOUT OF WORK

- A. All work under this Contract shall be constructed in accordance with the requirements of each Work Order or as directed by the CITY. Elevations of existing ground, structures and appurtenances are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the CITY for interpretation or correction.
- B. All survey work for construction control purposes shall be made by the CONTRACTOR at his expense.
- C. The CONTRACTOR shall establish all base lines for the location of the principal component parts of the work together with benchmarks and batter boards adjacent to the work. Based upon the information provided by the Contract Drawings, the CONTRACTOR shall develop and make all detail surveys necessary for construction. The CITY will furnish information and location of existing benchmarks.
- D. The CONTRACTOR shall have the responsibility to carefully preserve the benchmarks, reference points and stakes. In case of destruction thereof by the CONTRACTOR or resulting from his negligence, he shall be held liable for any expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such benchmarks, reference points and stakes.
- E. Existing or new control points, property markers, and monuments that will be established or are destroyed during the normal causes of construction shall be re-established by the CONTRACTOR; and all reference ties recorded therefore shall be furnished to the CITY. All computations necessary to establish the exact position of the work shall be made and preserved by the CONTRACTOR.
- F. The CITY may check all or any portion of the work, and the CONTRACTOR shall afford all necessary assistance to the CITY in carrying out such checks. Any necessary corrections to the work shall be performed immediately by the CONTRACTOR and he shall accept all responsibility for the accuracy and completeness of his work.

1.05 CONTRACTOR USE OF PROJECT SITE

**SECTION 01010
SUMMARY OF WORK**

- A. The CONTRACTOR's use of the project site shall be limited to its construction operations and field offices as applicable. Off-site storage of materials, if required, shall be arranged for by the CONTRACTOR and a copy of an agreement for use of other property shall be furnished to the CITY.

1.06 CITY USE OF THE PROJECT SITE

- A. The CITY may utilize all or part of the existing 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.

1.07 PARTIAL UTILIZATION OF THE WORK BY CITY

- A. The CONTRACTOR is hereby advised that the CITY may accept the responsibility for the maintenance and protection of a specific portion of the project if utilized prior to completion. However, the CONTRACTOR shall retain full responsibility for satisfactory operation of the total project

1.09 SITE CONDITIONS

- A. The CONTRACTOR acknowledges that he has investigated prior to bidding and satisfied himself 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 prosecution of the Work. The CONTRACTOR further acknowledges that he has satisfied himself 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 any Drawings and Specifications made a part of this Contract, or any other information made available to him prior to receipt of Bids. Any failure by the CONTRACTOR to acquaint himself 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.
- B. CONTRACTOR shall also take color photographs (4" x 6" minimum) and video (CD or digital format) to document pre-existing above-ground conditions and shall provide the CITY with a set of photographs, negatives and video tapes. These photographs and tapes may be used for purposes of restoration documentation. Digital photographs and videos supplied on a storage devices are also acceptable.

1.10 DIFFERING SITE CONDITIONS

- A. The CONTRACTOR shall promptly and before such conditions are disturbed, notify the CITY in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for this contract. The CITY will promptly investigate the conditions, and if he finds that such conditions do materially so differ and cause an increase or decrease in the CONTRACTOR's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the contract modified in writing accordingly.
- B. No claim of the CONTRACTOR under this clause shall be allowed unless the CONTRACTOR has given the notice required in Paragraph A.
- C. No claim by the CONTRACTOR for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01010

PART 1 - GENERAL

1.01 SCOPE

- A. Substantial amount of Technical Specification (specification) language constitutes definitions for terms found in other areas of the Contract Documents including the Drawings, which must be recognized as diagrammatic in nature and not completely descriptive of all requirements necessary.
- B. Certain terms used in the Contract Documents are defined in the General Terms & Conditions. Definitions and explanations are not necessarily either complete or exclusive but are general for the WORK.
- C. The term "CITY", as defined in the General Terms & Conditions and used in these specifications, is further defined as the CITY or CITY'S authorized representative, which may include, but is not limited to, the Design Engineer, Project Manager or Construction Manager.

1.02 FORMAT AND SPECIFIC EXPLANATIONS

- A. Format Explanation: The format of principal portions of these specifications can be described as follows, although other portions may not fully comply and no particular significance will be attached to such compliance or noncompliance.
- B. SECTIONS and DIVISIONS: For convenience, the basic unit of the specification text is a "SECTION", each unit of which is named and numbered. These are organized into related families of sections, and various families of sections are organized into "DIVISIONS", which are recognized as the present industry consensus on uniform organization and sequencing of specifications. The SECTION title is not intended to limit meaning or content of SECTION, nor to be fully descriptive of requirements specified therein, nor to be an integral part of the text.
- C. SECTION Numbering: Used for identification and to facilitate cross-references in the Contract Documents. SECTIONS are placed in numeric sequence; however, the numbering is not sequential, and listing of SECTIONS in Table of Contents at the beginning of the Technical Specifications must be consulted to determine numbers and names of specification SECTIONS in these Contract Documents.
- D. Page Numbering: Numbered independently for each SECTION. The SECTION number is shown with the page number at bottom of each page to facilitate location of the text.
- E. Parts: Each SECTION of these specifications generally has been subdivided into three (3) basic parts for uniformity and convenience (Part 1 "General", Part 2 "Products", and Part 3 "Execution"). These parts do not limit the meaning of the

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text within. Some SECTIONS may not contain all three parts when not applicable, or may contain more than three parts to add clarity to organization of the SECTION.

- F. Imperative Language: Used generally in specifications. Except as otherwise indicated, requirements expressed imperatively are to be performed by the CONTRACTOR. For clarity of reading, at certain locations contrasting subjective language is used to describe responsibilities which must be fulfilled by the CONTRACTOR or, when so noted, by others.
- G. Specialists Assignments: In certain instances, specification text requires that specific work be assigned to specialists or expert entities who must be engaged for performance of those units of work. These must be recognized as special requirements over which the CONTRACTOR has no choice or option. These assignments must not be confused with, and are not intended to interfere with, normal application of regulations, union jurisdictions and similar conventions. Nevertheless final responsibility for fulfillment of the entire set of requirements remains with the CONTRACTOR.
- H. Trades: Except as otherwise specified or indicated, the use of titles such as "carpentry" in specification text, implies neither that the work must be performed by an accredited or unionized tradesperson of corresponding generic name (such as "carpenter"), nor that the specified requirements apply exclusively to work by tradespersons of that corresponding generic name.
- I. Specification Content: Because of methods by which this Project specification has been produced, certain general characteristics of contents and conventions in use of language are explained as follows:
 - 1. Specifying Methods: The techniques or methods of specifying requirements varies throughout the text, and may include "prescriptive", "compliance with standards", "performance", "proprietary", or a combination of these. The method used for specifying one unit of work has no bearing on requirements for another unit of work.
 - 2. Overlapping and Conflicting Requirements: Where compliance with two (2) or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, notify the CITY for a decision, as specified in the General Terms & Conditions.
 - 3. Abbreviations: Throughout the Contract Documents are abbreviations implying words and meanings which will be appropriately interpreted. Specific abbreviations have been established, principally for lengthy technical terminology, and in conjunction with coordination of specification requirements, with notations on the Drawings and in schedules. These are normally defined at first instance of use. Organizational and association names and titles of general

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DEFINITIONS AND STANDARDS

standards are also abbreviated

1.03 DRAWING SYMBOLS

- A. Except as otherwise indicated, graphic symbols used on the Drawings are those symbols generally recognized in the construction industry for the purposes indicated. Refer instances of uncertainty to the CITY for clarification.

1.04 INDUSTRY STANDARDS - APPLICABILITY

- A. Applicable standards of the construction industry have the same force and effect and are made a part of the Contract Documents by reference, as if copied directly into the Contract Documents, or as if published copies were bound herewith. Referenced standards referenced directly in the Contract Documents or by governing regulations have precedence over non-referenced standards which are recognized in industry for applicability to work.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 01015

PART 1 - GENERAL

1.01 SCOPE

- A. Payment for various items of the Bid Schedule, 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 and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the work all in accordance with requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost 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). No separate payment shall be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenances needed to complete the items of work. Such compensation shall also include payments for any loss or damages arising directly or indirectly from the work, from any discrepancies between the actual quantities of work and those shown in the Contract Documents, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the CITY.
- B. Payment for the various items of the Bid Schedule shall constitute full compensation for CONTRACTOR's superintendent at the job site full-time during construction, for furnishing and installing all pipe and large meters; and all other work not included in other bid items.
- C. Payment shall also include providing the necessary equipment and labor power to pothole and verify depths and locations of existing utilities sufficiently ahead of construction to avoid conflicts with the design alignment, water mains, force mains, gravity sewers, culverts, storm drains, exfiltration trenches, etc. Conflicts with utilities shown on the Drawings which result from the CONTRACTOR's negligence to pothole sufficiently ahead of construction (a minimum of two days ahead of construction of the pipeline or as approved by the ENGINEER) shall be resolved by the CONTRACTOR at no additional cost to the CITY.
- D.. The monetary values stated in the Bid Schedule include all costs and expenses for taxes, escalation, labor, equipment, materials, commissions, transportation charges and expenses, patent fees and royalties, and labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the work as shown on the Drawings and specified herein. The basis of payment for an item at the monetary value shown in the Bid Schedule shall be in accordance with its description of the item in this Section and as related to the work specified and as shown on the Drawings. Unit prices where used will be applied to the actual quantities furnished and installed in conformance with the Contract Documents.
- E. The CONTRACTOR's attention is called to the fact that the quotations for the various items of work are intended to establish a total compensation for completing the work in its entirety. Should the CONTRACTOR feel that the cost of any item of work has not been established by the Bid Schedule, they shall include the cost for that work in the

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other bid items so that the total cumulative value in his Bid Schedule reflect their total compensation for completing the project in its entirety.

1.02 MEASUREMENT

- A. The quantities for payment under this Contract shall be determined by actual measurement of the completed items, in place, ready for service, and accepted by the CITY in accordance with the Contract Documents. A representative of the CONTRACTOR shall witness all field measurements.

1.03 PAYMENT ITEMS

- A. All bid items below shall be provided by the CONTRACTOR along with all applicable regulatory permits prior to construction for the full compensation as described below, in full accordance with the Drawings and Specifications.
- B. Item No. 1 – Bonds and Insurance: The work included in this item includes the costs of bonds and any required insurance as outlined in the Contract Documents, all of which are part of the CONTRACTOR's typical overhead expenses. Payment of said bonds and insurance shall be made at the time of payment of the first progress estimate. NOTE: The maximum total amount paid for the CONTRACTOR's overhead expenses (includes bonds, insurance, administration costs, and other contractor provisions) shall not exceed 7.5% of his subtotal for all labor, materials, equipment, supplies, other construction provisions, and taxes for this project (excludes permits, allowances, profit, and escalation).
- C. Item No. 2 – Mobilization: The work included in this item consists of preparatory work and operations in mobilizing for beginning work, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; the establishment of the temporary provisions per state and local laws and regulations; and any other preconstruction expense (including preconstruction work conference and audio-video preconstruction record) necessary for the start of the work. Payment for this item shall be made at the lump sum price named in the Bid Schedule, in equal monthly amounts over the duration of the original Contract time, and the maximum total amount paid for mobilization shall not exceed two (2) % of the CONTRACTOR's subtotal for labor, materials, equipment, supplies and other construction provisions (excludes taxes, permits, allowances, overhead, profit, and escalation).
- D. Item No. 3 – 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.
- E. Item No. 4 – Permit Fees: The work included in this item consists of regulatory permits which the CONTRACTOR must obtain prior to beginning related construction activities, and this item specifically excludes the permits and approvals listed in Contract

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MEASUREMENT AND PAYMENT**

Documents. Payment for this item shall be made at the actual cost of permit fees and any required testing services specifically defined within the permit requirements. CONTRACTOR must provide copies of any receipts and/or invoices to justify these actual costs for reimbursement under this item. CONTRACTOR is responsible for any coordination with regulatory agencies to obtain these permits.

- F. Item No. 5 – Construction Contingency Allowance: The work included in this item is related to project work not identified or reasonably anticipated through the Contract Documents, which includes, but is not limited to, the replacement of existing large user meters and the replacement of sump pumps and associated piping of any existing utility infrastructure encountered that are deemed unnecessary by the governing utility company. This is an allowance, and any work to be completed under this item must be specifically approved in writing by the City prior to completing the work, including the mutually agreed upon cost of said work.
- G. Items No. 6, 9, 16, 20, 24, 26, 30, 33, 36, 38 – Furnish and Install ABB Meter Assembly: The work included in this item consists of all installation activities at the existing large user meter site as indicated on the Drawings. This work shall include all the furnishing, installation, and calibration of the replacement ABB meter assembly based on the per unit price provided in the Bid Schedule.
- H. Items No. 7, 10, 17, 21, 25, 27, 31, 34, 37, 39 – Furnish and Install Sump Pump: The work included in this item consists of installing sump pumps and associated piping, as indicated on the Drawings. This work shall also include, but not be limited to, all installation of sump pump, associated piping, and electrical as indicated on the Drawings based on the lump price provided in the Bid Schedule.
- I. Items No. 8, 19, 22, 28, – Electrical Panel Adjustments: The work included in this item consists of raising electrical panel 30" above existing grade as indicated on the Drawings based on the lump sump price provided in the Bid Schedule.
- J. Items No. 8, 19, 22, 28, – Electrical Panel Adjustments: The work included in this item consists of raising electrical panel 30" above existing grade as indicated on the Drawings based on the lump sump price provided in the Bid Schedule.
- K. Items No. 11-12 – Addition of Curb and Grade: The work included in this item consists of providing and installing precast or cast-in-place reinforced concrete structures of the size, grade and depth as indicated on the Drawings. This work shall also include, but not be limited to, all demolition, excavation, dewatering, surveying, noise abatement, bedding, Payment for these items shall be made at measured installed linear footage based on the lump sump price provided in the Bid Schedule.
- L. Items No. 13 – Vault Maintenance - Remove Roots: The work included in this item consists of removing roots inside vault structure and repairing area where root damaged as indicated in the drawings. Payment for this item shall be made at the based on the lump sum price provided in the Bid Schedule.
- M. Items No. 14 – Vault Maintenance - Repair Concrete Wall in areas that are Spalling: The work included in this item consists of repairing the concrete wall Payment for this

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MEASUREMENT AND PAYMENT

item shall be made on the lump sum price provided in the Bid Schedule.

- N. Items No. 15 – Vault Maintenance Install - New Vault Door Hinge: The work included in this item consists of installing new door hinges. Hinges can be welded or bolted to hatch. Payment for this item shall be made based on the lump sum price provided in the Bid Schedule.
- O. Items No. 18 - Vault Maintenance – Locking Mechanism: The work included in this item consists of Fixing the lock mechanism on panel as specified in drawings. Payment for this item shall be made based on the lump sum price provided in the Bid Schedule.
- P. Items No. 23, 35 – Vault Maintenance – Water in Vault: The work included in this item consists of the removal of any water in the vault and disposing of properly. Payment for this item shall be made at the unit price provided in the Bid Schedule
- Q. Items No. 29 – Vault Maintenance Rain Guard: The work included in this item consists of furnishing and installing rain guard on manhole as specified in drawings. Payment for this item shall be made at the percentage complete based on the lump sum price provided in the Bid Schedule which shall constitute full compensation.
- R. Items No. 40 – Vault Maintenance Clean Hatch Grooves: The work included in this item consists of cleaning hatch grooves as specified in drawings. Payment for this item shall be made at the unit price provided in the Bid Schedule.
- S. Items No. 32 – Install new conduit from panel to lift station building: The work included in this item consists of furnishing and installing up to 3” conduit piping based on the linear footage measured from building to panel at the price provided in the Bid Schedule.

END OF SECTION 01025

Part 1 - GENERAL

1.01 THE REQUIREMENT

- A. Wherever references are made in these specifications to any published standards, codes, standard 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. References shall be to the latest versions currently in effect, unless otherwise specified by the City and/or Engineer. 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.
- B. The following is a partial list of typical abbreviations which may be used in the Specifications, and the organizations to which they refer. Abbreviated titles for other governing standards are used throughout these specifications and, although most of them are widely known, their complete titles are given below to avoid misunderstanding:
1. AAMA - Architectural Aluminum Manufacturer's Association
 2. AASHTO - American Association of the State Highway and
 3. ACI - American Concrete Institute
 4. ACI - American Concrete Institute
 5. ACIFS - American Cast Iron Flange Standards
 6. ACOE - Army Corps of Engineers
 7. ACPA - American Concrete Pipe Association
 8. AFBMA - Anti-Friction Bearing Manufacturer's Association
 9. AGMA - American Gear Manufacturer's Association
 10. AGA - American Gas Association
 11. AGMA - American Gear Manufacturers Association
 12. AHGDA - American Hot Dip Galvanizers Association
 13. AI - The Asphalt Institute
 14. AIA - American Institute of Architects
 15. AISC - American Institute of Steel Construction
 16. AISI - American Iron and Steel Institute
 17. AITC - American Institute of Timber Construction
 18. AMCA - Air Moving and Conditioning Association
 19. ANSI - American National Standards Institute, Inc.
 20. APA - American Plywood Association

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21. API - American Petroleum Institute
22. APHA - American Public Health Association
23. APWA - American Public Works Association
24. ASA - Acoustical Society of America
25. ASAE - American Society of Agriculture Engineers
26. ASCE - American Society of Civil Engineers
27. ASHRAE - American Society of Heating, Refrigerating, and Air-Conditioning Engineers
28. ASLE - American Society of Lubricating Engineers
29. ASME - American Society of Mechanical Engineers
30. ASMM - Architectural Sheet Metal Manual
31. ASSE - American Society of Sanitary Engineers
32. ASTM - American Society for Testing and Materials
33. AWI - Architectural Woodwork Institute
34. AWWA - American Wood Preservers Association
35. AWPI - American Wood Preservers Institute
36. AWS - American Welding Society
37. AWWA - American Water Works Association
38. BCEPGMD - Broward County Environmental Protection and Growth Management Department (formerly BCEPD)
39. BCHD - Broward County Health Department
40. BHMA - Builders Hardware Manufacturer's Association
41. CMA - Concrete Masonry Association
42. CRSI - Concrete Reinforcing Steel Institute
43. CSA - Canadian Standards Association
44. DHI - Door and Hardware Institute
45. DIPRA - Ductile Iron Pipe Research Association
46. EIA - Electronic Industries Association
47. ETL - Electrical Test Laboratories
48. FBC - Florida Building Code
49. FDEP - Florida Department of Environmental Protection
50. FDOT - Florida Department of Transportation
51. FS - Federal Specifications

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APPLICABLE STANDARDS AND CODES

- 52. ICEA - Insulated Cable Engineers Association
- 53. IEEE - Institute of Electrical and Electronics Engineers
- 54. IES - Illuminating Engineering Society
- 55. IPCEA - Insulated Power Cable Engineers Association
- 56. ISA - Instrument Systems and Automation
- 57. ISO - International Organization for Standardization
- 58. MBMA - Metal Building Manufacturers Association
- 59. MMA - Monorail Manufacturers Association
- 60. MTI - Marine Testing Institute
- 61. NAAMM - National Association of Architectural Metal Manufacturers
- 62. NACE - National Association of Corrosion Engineers
- 63. NBS - National Bureau of Standards
- 64. NCPI - National Clay Pipe Institute
- 65. NEC - National Electrical Code
- 66. NEMA - National Electrical Manufacturer's Association
- 67. NFPA - National Fire Protection Association
- 68. NLMA - National Lumber Manufacturers Association
- 69. NIOSH - National Institute of Occupational Safety and Health
- 70. NIST - National Institute of Standards and Testing
- 71. NRCA - National Roofing Contractors Association
- 72. NSF - National Science Foundation
- 73. OSHA - Occupational Safety and Health Administration
- 74. PCA - Portland Cement Association
- 75. SMACCNA - Sheet Metal and Air Conditioning Contractors National Association
- 76. SAE - Society of Automotive Engineers Standards
- 77. SHBI - Steel Heating Boiler Institute
- 78. SMACCNA - Sheet Metal and Air Conditioning Contractors National Association
- 79. SSPC - Steel Structures Painting Council
- 80. SSPWC - Standard Specifications for Public Works Construction
- 81. SFWMD - South Florida Water Management District
- 82. UL - Underwriters Laboratories, Inc.

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APPLICABLE STANDARDS AND CODES

- C. CONTRACTOR shall, when required, furnish evidence satisfactory to the ENGINEER that materials and methods are in accordance with such standards where so specified.
- D. In the event any questions arise as to the application of these standards or codes, copies shall be supplied on site by the CONTRACTOR.

Part 2 - PRODUCTS (Not Used)

Part 3 - EXECUTION (Not Used)

END OF SECTION 01090

PART 1 - GENERAL

1.01 SCOPE

- A. Summary of Work: This SECTION includes the following administrative and procedural requirements:
 - 1. Project Meetings:
 - a. Preconstruction conference
 - b. Progress meetings
 - 2. Schedules and Reports:
 - a. Initial coordination submittals
 - b. Special reports
- B. Related Work Specified Elsewhere
 - 1. SECTION 01300 - Submittals

1.02 SUBMITTALS

- A. All submittals shall be made in accordance with SECTION 01300.

1.03 PROJECT MEETINGS

- A. Pre-construction Conference
 - 1. The CITY will administer a pre-construction conference within ten (10) days after the Effective Date of the Agreement, to review items stated in the following agenda and to establish a working understanding between the parties as to their relationships during conduct of the WORK.
 - 2. The Preconstruction conference shall be attended by:
 - a. The CONTRACTOR and Project Superintendent
 - b. Representatives of principal Subcontractors and Suppliers
 - c. Engineer and his Resident Project Representative if any
 - d. The CITY or its representative
 - e. Other affected parties determined by the CITY
 - 3. Agenda
 - a. Projected Construction Schedules
 - b. Critical Work sequencing
 - c. Designation of responsible personnel
 - d. Project coordination
 - e. Procedures and Processing of:
 - i. Field decisions
 - ii. Substitutions
 - iii. Submittals
 - iv. Change Orders
 - v. Applications for payment

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PROJECT MEETINGS AND REPORTS

- f. Procedures for testing
- g. Procedures for maintaining record documents
- h. Use of Premises:
 - i. Office, work and storage areas
 - ii. The CITY's requirements
- i. Construction facilities, controls, and construction aids
- j. Temporary utilities
- k. Safety and first aid
- l. Security
- m. Requirements of any permits obtained by the CITY and/or the CONTRACTOR
- n. Location of Meeting: 1621 N. 14th Ave, Hollywood FL 33020

B. Progress Meetings:

1. The CITY will administer a progress meeting a minimum of twice each month (every two (2) weeks) and at other times requested by the CITY. The CONTRACTOR, Engineer and all Subcontractors active on the Site shall be represented at each meeting. The CONTRACTOR may request attendance by representatives of his Suppliers and other Subcontractors, or other entities concerned with the Project or involved with the planning, coordination or performance of future Project activities. All participants in the meeting shall be familiar with the Project and authorized to conclude matters relating to the WORK
2. The CONTRACTOR and each Subcontractor shall be prepared to report on and discuss the current construction progress, any anticipated future changes to the Construction Schedule, and advise if their current progress, and anticipated future schedules are compatible with the WORK.
3. If one Subcontractor is delaying another, the CONTRACTOR shall direct such changes as are necessary for those involved to mutually agree on the Construction Schedule changes in the best interest of construction progress.
4. Agenda
 - a. Review of construction progress since previous meeting
 - b. Field observations, interface requirements, conflicts
 - c. Issues which may impede the Construction Schedule
 - d. Off-site fabrication
 - e. Delivery schedules
 - f. Submittal schedules and status
 - g. Site utilization
 - h. Temporary facilities and services
 - i. Hours of Work
 - j. Hazards and risks
 - k. Housekeeping
 - l. Quality and Work standards
 - m. Change orders
 - n. Documentation of information for payment request
 - o. Corrective measures and procedures to regain projected schedule, if necessary

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PROJECT MEETINGS AND REPORTS

- p. Revisions to the Construction Schedule
 - q. Progress and schedule during the succeeding WORK period
 - r. Review proposed changes for:
 - i. Effect on the Construction Schedule and on the Completion Date
 - ii. Effect on the other contracts of the Project
 - s. Other business
- 5. Location of Meetings: 1621 N. 14th Ave, Hollywood FL 33020
 - 6. Reporting: After each meeting, minutes of the meeting will be distributed by the CITY to each party present and to parties who should have been present.
- C. Special Reports:
- 1. When an event of an unusual and/or significant nature occurs at the Site, a special report shall be prepared and submitted by the CONTRACTOR to the CITY. List the chain of events, persons participating, the response by CONTRACTOR's personnel, an evaluation of the results or effects, and similar pertinent information.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 01200

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 City, Engineer, or other representatives of the City, shall be directed through the Engineer. A summary of the key types of submittals and the number of copies required is as follows:

<u>Copies to Engineer</u>	<u>Type of Submittal</u>
4	Construction schedule
4	Schedule of payment items
1	Audio visual preconstruction record
6	Progress estimates
4	Shop drawings
4	Certificates of compliance
2	Warranties
1*	Product samples
1	Record drawings
5	Final Record Drawings

*Unless otherwise required in the specific Section where requested.

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. The Contractor shall have the capability of preparing and utilizing the specified construction progress scheduling techniques. A statement of capability shall be submitted in writing to the Engineer with the return of the executed Agreement to the City and will verify that either the Contractor's organization has in-house capability qualified to use the technique

SECTION 01300
SUBMITTALS

or that the Contractor employs a consultant who is so qualified. Capability shall be verified by description of the construction projects to which the Contractor or its consultant has successfully applied the scheduling technique and which were controlled throughout the duration of the project by means of systematic use and updating of the construction progress schedule, the network analysis and associated reports. The submittal shall include the name of the individual on the Contractor's staff who will be responsible for the construction progress schedule, and associated reports and for providing the required updating information of same. The Contractor shall submit its proposed progress (baseline) schedule to the Engineer for review and comment within thirty days of the Notice to Award. The Engineer shall have the authority to determine acceptability/correctness of the schedule logic and activity interrelationships. The use of extraneous, nonworking activities and activities which add restraints to the construction schedule shall not be accepted. Baseline schedules that do not meet their contract completion dates shall not be accepted.

- B. The Contractor's progress schedule (baseline and monthly updates) shall be computer generated and resource loaded. Each construction progress schedule, and associated report shall include the following tabulations: a list of activities in numerical order, a list of activity precedence, schedules sequenced by Early Start Date, Total Float, and Late Start Date. Each schedule and report shall include the following minimum items.

1. Activity Numbers
2. Estimated Duration
3. Activity Description
4. Early Start Date (Calendar Dated)
5. Early Finish Date (Calendar Dated)
6. Latest Allowable Start Date (Calendar Dated)
7. Latest Allowable Finish Date (Calendar Dated)
8. Status (whether critical)
9. Estimated Cost of The Activity
10. Total Float and Free Float

- C. In addition, each construction progress schedule, network analysis and report shall be prefaced with the following summary data:

1. Contract Name and Number
2. Contractor's Name
3. Contract Duration and Float
4. Contract Schedule
5. The Effective or Starting Date of The Schedule (the date indicated in the Notice-to-Proceed)

- D. The work day to calendar date correlation shall be based on an 8-hour day and 40-hour week with adequate allowance for holidays and all other special requirements of the Work.

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SUBMITTALS**

A total of six (6) days for adverse weather shall also be allowed for in the progress schedule.

- E. If the Contractor desires to make changes in its method of operating which affect the construction progress schedule and related items, the Contractor shall notify the Engineer in writing stating what changes are proposed and the reason for the change. If the Engineer accepts these changes, in writing, the Contractor shall revise and submit, without additional cost to the City, all of the affected portions of the construction progress schedule, and associated reports. The construction progress schedule and related items shall be adjusted by the Contractor only after prior acceptance, in writing by the Engineer. Adjustments may consist of changing portions of the activity sequence, activity durations, division of activities, or other adjustments as may be required. The addition of extraneous, nonworking activities and activities which add restraints to the construction progress schedule shall not be accepted.
- F. Except where earlier completions are specified, schedule dates which show completion of all Work prior to the contract completion date shall, in no event, be the basis for claim for delay against the City by the Contractor.
- G. Construction progress schedules and related items which contain activities showing negative float or which extend beyond the contract completion date will not be accepted by the Engineer.
- H. Whenever it becomes apparent from the current construction progress schedule and associated reports that delays to the critical path have resulted and the contract completion date will not be met, or when so directed by the Engineer, the Contractor shall take some or all of the following actions at no additional cost to the City. They shall submit to the Engineer for approval, a written statement of the steps they intend to take to remove or arrest the delay to the critical path in the current construction progress schedule, including a computer generated schedule revision to reflect proposed actions.
 - 1. Increase construction manpower in such quantities and crafts as will substantially eliminate the backlog of work.
 - 2. Increase the number of working hours per shift, shifts per day, working days per week, the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate the backlog of work.
 - 3. Reschedule activities to achieve maximum practical concurrency of accomplishment of activities, and comply with the revised schedule.
- I. If when so requested by the Engineer, the Contractor should fail to submit a written statement of the steps they intend to take or should fail to take such steps as reviewed and accepted in writing by the Engineer, the Engineer may direct the Contractor to increase the level of effort in manpower (trades), equipment and work schedule (overtime, weekend and holiday work, etc.) to be employed by the Contractor in order to remove or arrest the delay to the critical path in the current construction progress schedule, and the Contractor shall promptly provide such level of effort at no additional cost to the City.

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- J. If the completion of any activity, whether or not critical, falls more than 100 percent behind its previously scheduled and accepted duration, the Contractor shall submit for approval a schedule adjustment showing each such activity divided into two activities reflecting completed versus uncompleted work.
- K. Shop drawings which are not approved on the first submittal or within the time scheduled, and equipment which does not pass the specified tests and certifications shall be immediately rescheduled.
- L. The contract time will be adjusted only in accordance with the General Requirements and other portions of the Contract Documents as may be applicable. If the Engineer finds that the Contractor is entitled to any extension of the contract completion date, the Engineer's determination as to the total number of days extension shall be based upon the current construction progress schedule and on all data relevant to the extension. Such data shall be included in the next updating of the schedule and related items. Actual delays in activities which, according to the construction progress schedule, do not affect any contract completion date will not be the basis for a change therein.
- M. From time to time it may be necessary for the contract schedule of completion time to be adjusted by the City in accordance with the General Requirements and other portions of the Contract Documents as may be applicable. Under such conditions, the Engineer will direct the Contractor to reschedule the Work or contract completion time to reflect the changed conditions, and the Contractor shall revise the construction progress schedule and related items accordingly, at no additional cost to the City.
- N. Available float time may be used by the City through the City's Engineer.
- O. The City controls the float time and, therefore, without obligation to extend either the overall completion date or any intermediate completion dates, the City may initiate changes that absorb float time only. City initiated changes that affect the critical path on the network diagram shall be the sole grounds for extending the completion dates. Contractor initiated changes that encroach on the float time may be accomplished only with the City's concurrence. Such changes, however, shall give way to City initiated changes competing for the same float time.
- P. To the extent that the construction project schedule, or associated report or any revision thereof shows anything not jointly agreed upon or fails to show anything jointly agreed upon, it shall not be deemed to have been accepted by the Engineer. Failure to include on a schedule any element of Work required for the performance of this Contract shall not excuse the Contractor from completing all Work required within any applicable completion date, notwithstanding the review of the schedule by the Engineer.
- Q. Review and acceptance of the construction progress schedule, and related reports, by the Engineer is advisory only and shall not relieve the Contractor of the responsibility for accomplishing the Work within the contract completion date. Omissions and errors in the construction progress schedule, and related reports shall not excuse performance less than that required by the Contract and in no way make the Engineer an insurer of the Contractor's success or liable for time or cost overruns flowing from any shortcomings in the construction progress schedule, and related reports.

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- R. The Contractor shall present and discuss the proposed schedule at the preconstruction conference.
- S. The construction progress schedule shall be based upon the precedence diagramming method of scheduling and shall be prepared in the form of a horizontal bar chart showing in detail the proposed sequence of the Work and identifying all construction activities included but not limited to yard piping, all structures and treatment units and all related Work specified herein to be performed under the Contract. 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. The project critical path shall be clearly identified in color or by other means acceptable to the Engineer.
- T. The progress schedule shall be plotted on 22-inch by 34-inch and 11-inch by 17-inch paper and shall be revised and updated monthly, depicting progress through the last day of the current month and scheduled progress through completion. Ten (one 22-inch by 34-inch and nine 11-inch by 17-inch), schedules, required schedule "sorts" (tabulations) and an electronic copy of the baseline schedule shall be submitted for review and acceptance. Five (one 22-inch by 34-inch and four 11-inch x 17-inch) up-to-date copies of the schedule and five copies of tabulations and an electronic copy shall be submitted along with the application for monthly progress payments for the same period.
- U. The construction progress schedule shall be developed and maintained using Primavera Sure Trak as manufactured by Primavera Systems, Inc., or equal.

1.04 SCHEDULE OF PAYMENT VALUES

- A. The Contractor shall submit a Schedule of Payment Values, in accordance with Section 01025, for all items in the proposal that are to be paid for on a lump sum basis. The schedule shall contain the labor and material values of the component parts of Work for the purpose of making progress payments during the construction period. The Schedule of Payment Values shall directly correlate on an item by item basis (unless otherwise accepted by the Engineer) to each individual activity detailed in the construction progress schedule.
- B. The schedule shall be given in sufficient detail for the proper identification of Work accomplished. 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.
- C. If the Contractor anticipates the need for payment for materials stored on the project site, it shall also submit a separate list covering the cost of materials, delivered and unloaded with taxes paid. This list shall also include the installed value of the item with coded reference to the Work items in the Schedule of Payment Items.
- D. The Contractor shall expand or modify the above schedule and materials listing as required by the Engineer's initial or subsequent reviews.

- E. The Contractor shall update the Schedule of Payment Values monthly for reviewing by the Engineer. The payment applications shall be reviewed by the Engineer in accordance with the updated Schedule of Payment Values.

1.05 SHOP DRAWINGS, PROJECT DATA AND SAMPLES

- A. General: A Shop Drawing Submittal Schedule shall be provided by the Contractor within thirty (30) days of the Notice to Proceed.
- B. The Contractor shall furnish for review four (4) copies of shop drawings, project data, samples and other submittal items required by the Contract Documents. Two (2) copies shall be returned to the Contractor stamped "Furnish as Submitted" or "Furnish as Corrected". Where major corrections are indicated, two (2) copies will be returned stamped "Revise and Resubmit" and a new submittal is required (4 copies).
- C. The review of the Contractor's submissions shall in no way relieve the Contractor of any of his responsibilities under the Contract. An acceptance of a submission shall be interpreted to mean that there are no specific objections to the submitted material, subject to conformance with the Contract Drawings and Specifications.
- D. All submissions shall be dated and properly referenced to the specifications section and Contract Drawing number. The submittal number shall match the following submittal numbering system (or an equivalent system as approved by the Engineer):

Submittal Numbering System

- 1. Package ID: The package number will reflect the CSI (specification) section number as it appears in the specifications.
- 2. Subgroup ID: The submittal number will include the CSI number followed by two additional codes. The first will define the type of submittal as follows:

- 01 - Product Data, Specifications, Cut Sheets, Manufacturers certification or approval letters.
- 02 - Shop Drawings
- 03 - Product Samples and Mock-Ups
- 04 - Special requirements as required in the contract documents
- 05 - As-Built Drawings
- 06 - Warranties
- 07 - O&M
- 08 - Spare Parts

The second code will identify individual submittals within that submittal type. The number to the left of the decimal represents the submittal number and the number to the right of the decimal represents the revision number.

Example:

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<u>Package</u>	<u>Submittal</u>	<u>Description</u>
03300	03300-01-1.1	Concrete Admixture A, First Submittal
06400	06400-01-1.2	<pre> graph LR FC[Finish Carpentry] --> S[06400-01-1.2] PD[Product Data] --> S FS[First Submittal] --> S RS[Re-submittal] --> S </pre> ← Re-submittal First Submittal Product Data Finish Carpentry

By the following this code system, all submittals may be entered into the Document Tracking System prior to receipt of submittals. When a particular submittal is received, locate the entry in the Document Tracking project file, add the appropriate information and process. The Document Tracking System will provide the next sequence number.

- E. Shop Drawings and Project Data within practical limits shall be submitted as a single complete package for any operating system and shall include all items of equipment and mechanical units involved in the functioning of such system. Where applicable, the submission shall include elementary wiring diagrams showing circuit functioning and necessary interconnection wiring diagrams for construction.
- F. All submissions shall bear the Contractor's stamp certifying that they have been checked for conformance and accuracy. Submissions without the Contractor's stamp of approval will not be reviewed by the Engineer and will be returned to the Contractor.
- G. For any submission containing any departure from the Contract Documents and the Contractor shall include proper explanation in his letter of submittal.
- H. Work on fabricated or special items shall not be commenced until the required submission information has been reviewed and accepted.
- I. Standard items shall not be assembled or shipped until the required submission information has been reviewed and accepted.
- J. Prior review actions shall not relieve the Contractor of the responsibility for correcting errors, deviations, and/or omissions discovered at a later date.
- K. Shop Drawings: Shop Drawings include, but are not limited to, layout drawings, installation drawings, construction drawings, certified and interconnecting wiring diagrams, etc. The Contractor shall be responsible for security of all the information, details, dimension, drawings, etc. necessary to prepare submission drawings required and necessary under this Contract and to fulfill all other requirements of his Contract. The Contractor shall secure such information, details, drawings, etc. from all possible sources including the Contract Drawings, drawings prepared by subcontractors, Engineer, manufacturers, Contractors, etc.
- L. Submission drawings shall accurately and clearly present the following:
 - 1. All working and installation dimensions.

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2. Arrangement and sectional views.
 3. Units of equipment in the proposed position for installation, details of required attachments and connections and dimensioned locations between units and in relation to the structures.
 4. Necessary details and information for making connections between the various trades including but not limited to, power supplies and interconnection wiring between units, accessories, appurtenances, etc.
- M. Product Data: Where manufacturer's publications in the form of catalogs, brochures, illustrations, or other data sheets are submitted in lieu of prepared shop drawings, such submission shall specifically indicate the particular item offered. Identification of such items and relative pertinent information shall be made with indelible ink. Submissions showing only general information will not be accepted.
- N. Product data shall include materials of construction, dimensions, performance characteristics, capacities, wiring diagrams, piping and controls, etc.
- O. Samples: Contractor shall furnish for review all samples as required by the Contract Documents or requested by the Engineer.
- P. Samples shall be of sufficient size or quantity to clearly illustrate the quality, type, range of color, finish or texture and shall be properly labeled to show the nature of the work where the material represented by the sample will be used.
- Q. Samples shall be checked by the Contractor for conformance to the Contract Documents before being submitted to the Engineer and shall bear the Contractor's stamp certifying that they have been so checked. Transportation charges on samples submitted to the Engineer shall be prepaid by the Contractor.
- R. Engineer's review will be for compliance with the Contract Documents, and his comments will be transmitted to the Contractor with reasonable promptness.
- S. Accepted samples will establish the standards by which the completed work will be judged.

1.06 OPERATION AND MAINTENANCE INSTRUCTIONS (MANUALS)

- A. Individual Instructions: The Contractor, through manufacturer's representatives or other qualified individuals, shall provide instruction of designated employees of the OWNER in the operation and care of all equipment furnished.
- B. Written Instructions: The Contractor shall furnish and deliver to the Engineer, prior to the fifty percent completion point of construction, and no later than thirty (30) days prior to operator training, ten (10) complete sets of instructions, technical bulletins, and any other printed matter such as diagrams, prints or drawings, containing full information required for the proper operation, maintenance, and repair of the equipment. As a minimum, the following shall be included in this submittal:
1. Operating Instructions
 2. Troubleshooting Information
 3. Maintenance Schedule(s)

4. Lubrication Schedule
 5. Location of Service Centers
 6. Parts Diagram and List
 7. Spare Parts List (spare parts furnished shall be defined)
 8. Special Tools List
 9. Installation Instructions
 10. Assembly & Erection Drawings
 11. Dimensional Drawings
 12. Wiring Diagram(s)
 13. Storage Instructions
- C. These requirements are a prerequisite to the operation and acceptance of equipment. Each set of instructions shall be bound together in appropriate three-ring binders. A detailed Table of Contents shall be provided for each set. Written operation and maintenance instructions shall be required for all equipment items supplied for this project. The amount of detail shall be commensurate with the complexity of the equipment item. Submittal shall be made for all mechanical and electrical equipment included but not limited to pumps, valves, gates, etc.
- D. Information not applicable to the specific piece of equipment installed on this project shall be struck from the submission. Information provided shall include a source of replacement parts and names of service representatives, including address and telephone number.
- E. Extensive pictorial cuts of equipment are required for operator reference in servicing.
- F. When written instructions include shop drawings and other information previously reviewed by the Engineer, only those editions thereof which were accepted by the Engineer, and which accurately depict the equipment installed, shall be incorporated in the instructions.

1.07 RECORD DRAWINGS

- A. The Contractor shall keep and maintain, at the job site, one record set of Drawings. On these, it shall mark all project conditions, locations, configurations, and any other changes or deviations which may vary from the details represented on the original Contract Drawings, including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Drawings. As-Built furnished grade information shall be included on the record drawings. Said record drawings shall be supplemented by detailed sketches as necessary or directed to indicate, fully, the Work as actually constructed. These master record drawings of the Contractor's representation of as-build conditions, including all revisions made necessary by addenda and change orders shall be maintained up-to-date during the progress of Work.
- B. The record drawings shall be received on the 20th working day of every third month after the month in which the final notice to proceed is given as well as on completion of Work.

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Failure to maintain the record drawings up-to-date shall be grounds of withholding monthly progress payments until such time as the record drawings are brought up-to-date.

- C. In the case of those drawings which depict the detail requirement for equipment to be assembled and wired in the factory, such as motor control centers and the like, the record drawing shall be updated by indicating those portions which are superseded by change order drawings or final shop drawings, and by including appropriate reference information describing the change orders by number and the shop drawings by manufacturer, drawing, and revision numbers.
- D. Record drawings shall be accessible to the Engineer at all times during the construction period.
- E. Upon substantial completion of the Work and prior to final acceptance, the Contractor shall finalize and deliver a complete set of final record drawings to the Engineer for transmittal to the City, conforming to the construction records of the Contractor. This set of drawings shall consist of corrected drawings showing the reported location of the Work. The information submitted by the Contractor and incorporated in the Final Record Drawings will be assumed to be correct, and the Engineer will not be responsible for the accuracy of such information, and for any errors or omissions which may appear on the Final Record Drawings as a result.
- F. The information submitted by the Contractor in the Final Record Drawings shall be certified by a land surveyor registered in the State of Florida. For clarity, Final Record Drawings need to be redrawn and clearly labeled as "Record Drawings". Notations indicated in the drawings shall be legible and printed in black ink. No handwritten notes are allowed.
- G. Final payment will not be acted upon until the Engineer certifies the record drawings as required by the agencies having jurisdiction. Said up-to-date record drawings shall be in the form of a set of prints with carefully plotted information.
- H. All final record drawings shall be certified by the Engineer of Record. Such certification shall evidence that Engineer has reviewed the information, finds it in substantial accordance with the design; and where deviations from the design exist, that said deviations are not to the detriment of the system. Engineer's certification shall read as follows:

"I HEREBY NOTIFY THE OWNER OF THE COMPLETION OF CONSTRUCTION OF ALL THE COMPONENTS OF THE WATER, SEWER AND STORMWATER FACILITIES FOR THE ABOVE REFERENCED PROJECT AND CERTIFY THAT THEY HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS PERMITTED BY THE AGENCIES HAVING JURISDICTION"

- I. The Contractor shall submit all electronic media files of the paving, grading, water, sewer and drainage plans, reports, other supporting information, and the final version of as-built drawings shall be submitted to the Engineer's office. The information provided shall contain an index file with a brief description of the electronic filing contents, and shall be labeled with project name, company name, and point of contact. Documents and spreadsheets shall be submitted in either MS Word, Word Perfect, Excel, Lotus, or other format approved

by the Engineer. Drawings shall be submitted in AutoCAD, MicroStation, or other format approved by the Engineer.

J. Final Record Drawings submitted to the City as part of the project acceptance shall contain at least the following information:

1. Drawings shall be legibly marked to record actual construction.
2. Drawings shall show actual location of all underground and above ground water and wastewater, stormwater piping and related appurtenances. All changes to piping location including horizontal and vertical locations of utilities and appurtenances shall be clearly shown and referenced to permanent surface improvements. Drawings shall also show actual installed pipe material, class, etc. Profile sheets shall be updated to include all field measurements and elevations taken during construction.
3. Drawings shall clearly show all field changes of dimension and detail including changes made by field order or by change order.
4. Drawings shall clearly show all details not on original contract drawings but constructed in the field. All equipment and piping relocation shall be clearly shown.
5. Location of all manholes, hydrants, tees, reducers, crosses, valves, and valve boxes shall be shown. All tees, reducers, crosses, and valves shall be referenced from at least two (2) and preferably three (3) permanent points such as building corners and roadway intersections.
6. Dimensions between all manholes shall be field verified and shown. The rim, inverts and grade elevations of all manholes shall be shown.

1.08 WARRANTIES

- A. Original warranties, called for in the Contract Documents, shall be submitted to the City through the Engineer. When warranties are required, they shall be submitted prior to request for payment.
- B. When advance copies of warranties are requested, they shall be submitted with, and considered as shop drawings.
- C. The Contractor shall warrant to the City that all material and labor used in the construction are covered by his warrantee for a minimum of a one year period upon approval and acceptance by the City. The Contractor shall replace or repair defects at no cost to the City during the warrantee period. No visible or potential leakage shall be allowed during the warrantee period.

1.09 CERTIFICATES

- A. Copies of certificates of compliance and test reports shall be submitted for requested items to the Engineer prior to request for payment.

1.10 AUDIO-VISUAL PRECONSTRUCTION RECORD

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- A. General: Prior to commencing work, the Contractor shall have a continuous color audio-video DVD recording taken of the entire Project, including existing areas that will be disturbed by the Contractor's operations, to serve as a record of preconstruction conditions. No construction shall begin prior to review and acceptance of the tapes covering the respective, affected construction area by the Engineer. The Engineer shall have the authority to reject all or any portion of the video DVD not conforming to the specifications and order that it be redone at no additional charge. The Contractor shall reschedule unacceptable coverage within five days after being notified. The Engineer shall designate those areas, if any, to be omitted from or added to the audio-video coverage. Audio-video recordings shall not be performed more than ninety days prior to construction in any area. All DVDs and written records shall become property of the City.
- B. Services: The Contractor shall engage the services of a professional electrographer. The color audio-video tapes shall be prepared by a responsible commercial firm known to be skilled and regularly engaged in the business of preconstruction color audio-video tape documentation. The electrographer shall furnish to the Engineer a list of all equipment to be used for the audio-video taping, i.e., manufacturer's name, model number, specifications and other pertinent information. Additional information to be furnished by the electrographer is the names and addresses of two references that the electrographer has performed color audio-video taping for on projects of a similar nature within the last twelve months.
- C. Audio-Video DVDs: Audio-video DVDs shall be new. The DVDs shall be compatible for with a standard player-receiver.
- D. Equipment: All equipment, accessories, materials and labor to perform this service shall be furnished by the Contractor.
 - 1. The total audio-video system shall reproduce bright, sharp, clear pictures with accurate colors and shall be free from distortion, tearing, rolls or any other form of imperfection. The audio portion of the recording shall reproduce the commentary of the camera operator with proper volume and clarity, and be free from distortion and interruptions.
 - 2. When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall not be less than twelve feet. In some instances, audio-video tape coverage may be required in areas not accessible by conventional wheeled vehicles. Such coverage shall be obtained by walking or special conveyance acceptable to the Engineer.
 - 3. The color video camera used in the recording system shall have a horizontal resolution of 300 lines at center, a luminance signal to noise ratio of 45 dB and a minimum illumination requirement of twenty-five foot-candles.
- E. Recorded Information - Audio: Each tape shall begin with the current date, project name and municipality and be followed by the general location; i.e., process structure, or area, viewing side and direction of progress. The audio track shall consist of an original live

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recording. The recording shall contain the narrative commentary of the electrographer, recorded simultaneously with his fixed elevation video record of the zone of influence of construction.

- F. Recorded Information - Video: All video recordings must, by electronic means, display continuously and simultaneously, generated with the actual taping, transparent digital information to include the date and time of recording. The date information shall contain the month, day and year. The time information shall contain the hours, minutes, and seconds. Additional information shall be displayed periodically. Such information shall include, but not be limited to, project name, bid package number, process structure or area, and the viewing side. This transparent information shall appear on the extreme upper left hand third of the screen.
- G. Conditions for Taping: All taping shall be done during times of good visibility. No taping shall be done during precipitation, mist or fog. The recording shall only be done when sufficient sunlight is present to properly illuminate the subjects of recordings and to produce bright, sharp video recordings of those subjects.
- H. Tape Coverage: Tape coverage shall include all surface features located within the zone of influence of construction supported by appropriate audio coverage. Such coverage shall include, but not be limited to, existing road, driveways, sidewalks, curbs, pavement, landscaping, fences, signs and interior and exterior of existing structures affected by the work and the exteriors of structures adjacent to the work, and any other on-site area that will be occupied or impacted by the Contractor or any of his subcontractors or suppliers within the area covered.

Part 2 - PRODUCTS (Not Used)

Part 3 - EXECUTION (Not Used)

END OF SECTION 01300

PART 1 - GENERAL

- A. All testing and inspection will be in accordance the General Conditions
- B. The work or actions of the testing laboratory shall in no way relieve the CONTRACTOR of his obligations under the Contract. The laboratory testing work will include such inspections and testing required by the Contract Document, existing laws, codes, ordinances, etc. The testing laboratory will have no authority to change the requirements of the Contract Documents, nor perform or approve any of the CONTRACTOR'S work.
- C. The CONTRACTOR shall allow the ENGINEER ample time and opportunity for testing materials and equipment to be used in the work. He shall advise the ENGINEER promptly upon placing orders for materials and equipment so that arrangements may be made, if desired, for inspection before shipment from the place of manufacture. The CONTRACTOR shall at all times furnish the ENGINEER and his representatives, facilities including labor, and allow proper time for inspecting and testing materials, equipment, and workmanship. The CONTRACTOR must anticipate that possible delays may be caused him in the execution of his work due to the necessity of materials and equipment being inspected and accepted for use. The CONTRACTOR shall furnish, at his own expense, all samples of materials required by the ENGINEER for testing, and shall make his own arrangement for providing water, electric power, or fuel for the various inspections and tests of structures and equipment. As a minimum, 24-hours advance written notice shall be provided by the CONTRACTOR for rebar, structural and similar inspections by the ENGINEER. The amount of time required for advance written notice by the CONTRACTOR to the ENGINEER for other inspections depends upon other factors and shall be solely at the ENGINEER's discretion.
- D. The CONTRACTOR shall furnish the services of representatives of the manufacturers of certain equipment, as prescribed in other sections of the Specifications. The CONTRACTOR shall also place his orders for such equipment on the basis that, after the equipment has been tested prior to final acceptance of the work, the manufacturer will furnish to the CITY the certified statements that the equipment has been installed properly and is ready to be placed in functional operation. Tests and analyses required of equipment shall be paid for by the CONTRACTOR, unless specified otherwise in the section which covers a particular piece of equipment.
- E. The CITY will bear the cost of all additional tests, inspections, or investigations undertaken by the order of the ENGINEER for the purpose of determining conformance with the Contract Documents if such test, inspection, or investigations are not specifically required by the Contract Documents, and if conformance is ascertained thereby. Whenever nonconformance is determined by the ENGINEER as a result of such test, inspections, or investigations, the CONTRACTOR shall bear the full cost thereof or shall reimburse the CITY for said cost. The cost of any additional tests and investigations, which are ordered by the ENGINEER to ascertain subsequent conformance with the Contract Documents, shall be borne by the CONTRACTOR.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01400

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Scope:
1. This Section describes CONTRACTOR's responsibilities for a written site-specific health and safety plan (SSHP). CONTRACTOR shall conduct all construction activities in a safe manner so as not to result in:
 - a. injuries to employees, Subcontractors or other persons with an interest at or near the Site;
 - b. employee exposures to health hazards above the occupational limits established by the Occupational Health and Safety Administration (OSHA), the American Conference of Governmental Industrial Hygienists (ACGIH), or the Nuclear Regulatory Commission (NRC);
 - c. exposure of area residents to air contaminants above the levels established for general public exposure by the Environmental Protection Agency (EPA), NRC, or the State in which the Project is located;
 - d. significant increases in the levels of contaminants in soil, water, or sediment near the Site; or
 - e. violations of OSHA, or other Laws or Regulations.
- B. Any disregard of the provisions of the SSHP may, without limitation, be deemed just and sufficient reason for termination of CONTRACTOR's services for cause.

1.2 QUALITY ASSURANCE

- A. Qualifications:
1. Engage an industrial hygienist certified by the American Board of Industrial Hygiene or a safety professional certified by the Board of Certified Safety Professionals to prepare or supervise the preparation of the SSHP.
 2. Submit qualifications along with SSHP.
- B. Regulatory Requirements: CONTRACTOR's health and safety practices shall follow the standards and guidelines established in the following:
1. 29 CFR 1904, OSHA, Record Keeping.
 2. 29 CFR 1910, OSHA, General Industry Standards.
 3. 29 CFR 1926, OSHA, Construction Industry Standards.
 4. 29 CFR 1926.65, OSHA, Hazardous Waste Operations and Emergency Response.
 5. 49 CFR 171.8, DOT, Hazardous Materials in Transport.
 6. 40 CFR Parts 261.3, 264 and 265, EPA, Resource Conservation and Recovery Act.
 7. 29 CFR 1910.146, OSHA, Permit-Required Confined Spaces.
 8. 29 CFR 1926.1101, OSHA, Asbestos

1.3 SUBMITTALS

- A. Submit to ENGINEER the following:
1. CONTRACTOR's SSHP.
 2. Qualifications of industrial hygienist or safety professional.

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CONTRACTOR'S HEALTH AND SAFETY PLAN

3. Health and safety reports.
4. Accident reports.

PART 2 - GENERAL

2.1 GENERAL PROVISIONS

- A. Submit SSHP to ENGINEER one week prior to the Preconstruction Conference, or 30 days prior to planned mobilization at the Site, whichever is sooner.
- B. The SSHP shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of the SSHP.
- C. ENGINEER will review and either accept or return for revision CONTRACTOR's SSHP in accordance with the Schedule of Submittals acceptable to ENGINEER. ENGINEER's review and acceptance will be only to determine if the topics covered by the SSHP conform to the Contract Documents.
- D. ENGINEER's review and acceptance will not extend to means, methods, techniques, procedures of construction, or to whether the representations made in the SSHP comply with regulatory standards or standards of good practice.
- E. At the time of submittal, CONTRACTOR shall give ENGINEER specific written notice of variations, if any, that the SSHP may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the submittal; and, in addition, by a specific notation made on each submittal to ENGINEER for review and acceptance of each such variation.
- F. No Work shall be performed on the Site until the written SSHP has been accepted by the ENGINEER.
- G. Notwithstanding any other provision of the Contract Documents, extensions to the Contract Times will not be granted if caused by undue delay by CONTRACTOR in developing or revising the SSHP.

2.2 WRITTEN HEALTH AND SAFETY PROGRAM

- A.. The SSHP, which shall be kept on the Site, shall address the safety and health hazards of each phase of operations on the Site and include the requirements and procedures for employee protection. The SSHP as a minimum, shall address and include the following:
 1. The organizational structure of CONTRACTOR's organization.
 2. A comprehensive work plan.
 3. A safety and health risk or hazard analysis for each task and operation found in the work plan.
 4. Employee training assignments including copies of 40-hour, 24-hour Supervised Field Activities, 8-hour Supervisors, and 8-hour Refresher Training Certificates for all CONTRACTOR's employees assigned to the Project.

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5. Personal protective equipment to be used by employees for each of the tasks and operations being conducted. Respirator fit test certificates for all CONTRACTOR employees assigned to the Project.
6. Medical Surveillance Requirements: Medical clearance certificates for all CONTRACTOR's employees assigned to the Project.
7. Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment.
8. Site control measures for purposes, including but not limited to:
 - a. preventing trespassing;
 - b. preventing unqualified or unprotected workers from entering restricted areas;
 - c. preventing tracking of contaminants out of the Site;
 - d. maintaining log of employees on and visitors to the Site;
 - e. delineating hot, cold and support zones;
 - f. locating personnel and equipment decontamination zones; and
 - g. communicating routes of escape and gathering points.
9. Decontamination procedures.
10. An emergency response plan for safe and effective responses to emergencies, including the necessary PPE and other equipment.
11. Confined space entry procedures (if applicable).
12. A spill containment program.

C. Organizational Structure:

1. The organizational structure part of the SSHP shall refer to or incorporate information on the specific chain of command and specify the overall responsibilities of supervisors and employees, and shall include, at a minimum, the following elements:
 - a. designation of a general supervisor who has the responsibility and authority to direct all hazardous waste operations.
 - b. a Site safety and health supervisor who has the responsibility and authority to implement and modify the SSHP and verify compliance.
 - c. all other personnel needed for hazardous waste Site operations and emergency response and their general functions and responsibilities.
 - d. The lines of authority, responsibility, and communication.
2. The organizational structure shall be reviewed and updated as necessary to reflect the current status of Site operations.

D. Work Plan:

1. The comprehensive work plan part of the SSHP shall refer to or incorporate information on the following:
 - a. The tasks and objectives of the Site operations and the logistics and resources required to achieve those tasks and objectives.
 - b. The anticipated activities as well as the CONTRACTOR's normal operating procedures.
 - c. The personnel and equipment requirements for implementing the work plan.

- E.** The SSHP shall include procedures that will be used to ensure safe waste handling during the excavating, handling, loading, and transporting activities.

SECTION 01410
CONTRACTOR'S HEALTH AND SAFETY PLAN

2.3 ACCIDENT REPORTING AND INVESTIGATION

- A. Document all accidents resulting in bodily injury using OSHA 301 form.
- B. Submit copies of completed OSHA 301 forms to the ENGINEER weekly.
- C. Based upon the results of an accident investigation, make modifications to the SSHP by changing tasks or procedures to prevent a reoccurrence.
- D. Post a copy of CONTRACTOR's OSHA 300A report in a conspicuous place onsite.

2.4 DAILY HEALTH AND SAFETY FIELD REPORTS

- A. Submit to ENGINEER daily health and safety field reports including, but not limited to, weather conditions, delays encountered in construction, and acknowledgment of deficiencies noted along with corrective actions taken on current and previous deficiencies. In addition, the daily health and safety air monitoring results, documentation of instrument calibration, new hazards encountered, and PPE utilized shall be included.
- B. The daily health and safety field reports shall include a description of problems, real or anticipated, encountered during the course of Work that should be brought to the attention of the ENGINEER and notification of deviations from planned Work shown in the previously submitted daily health and safety field report(s).

PART 3 - EXECUTION (Not Used)

END OF SECTION 01410

SECTION 01510
TEMPORARY UTILITY SERVICES AND STAGING AREA

PART 1 - GENERAL

1.01 GENERAL

- A. The CONTRACTOR shall provide for temporary utilities and services for his own operations. These shall include electrical power, water, ventilation, sanitary facilities. The CONTRACTOR shall furnish, install and maintain all temporary utilities during the contract period including removal upon completion of the work. Such facilities shall comply with regulations and requirements of the National Electrical Code, OSHA, Florida Power and Light, and applicable Federal, State and local codes, etc. In addition, the CONTRACTOR shall provide the following:

1.02 TEMPORARY POWER (NOT USED)

1.03 TEMPORARY WATER

- A. The CONTRACTOR shall supply all water used for construction, flushing, testing, and temporary sanitary facilities. The CONTRACTOR shall provide and maintain all piping, fittings, adapters, and valving required. It is the CONTRACTOR'S responsibility to arrange through the City Underground Utilities Division for a 2-inch fire hydrant 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.

1.04 TEMPORARY VENTILATION (NOT USED)

1.05 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 at approved locations.

1.06 TEMPORARY TELEPHONE SERVICE (NOT USED)

1.07 SECURITY (NOT USED)

1.08 STAGING AREA

- A. The CONTRACTOR shall arrange, coordinate and take all necessary steps regarding his work effort to comply with constraints defined in Section 01520, including off site parking, staging, storage, etc., as required. Costs associated with these efforts shall be included in the bid for this project.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01510

PART 1 - GENERAL

1.01 THE REQUIREMENT

- 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 CITY.
- C. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.

1.02 RIGHTS-OF-WAY (NOT USED)

1.03 PROTECTION OF STREET OR ROADWAY MARKERS (NOT USED)

1.04 RESTORATION OF FACILITIES

- A. General: All paved areas including asphaltic concrete berms cut or damaged during construction shall be replaced with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit. All temporary and permanent pavement shall conform to the requirements of the affected pavement CITY. All pavements which are subject to partial removal shall be neatly saw cut in straight lines.
- B. Temporary Restoration: Temporary restoration includes repair to all driveways, sidewalks and roadways. They shall be swept clean and be maintained free of dirt and dust. All areas disturbed by the construction activities shall be restored to proper grade, cleaned up, including the removal of debris, trash, and deleterious materials. All construction materials, supplies, or equipment, including piles of debris shall be removed from the area. All temporarily restored areas shall be maintained by the CONTRACTOR. These areas shall be kept clean and neat, free of dust and dirt, until final restoration operations are completed. The CONTRACTOR is responsible to utilize dust abatement operations in the temporarily restored areas as required, to the satisfaction of the ENGINEER.
- C. Temporary Resurfacing: Wherever required by the public authorities having jurisdiction, the CONTRACTOR shall place temporary surfacing promptly after backfilling and shall maintain such surfacing for the period of time fixed by said authorities before proceeding with the final restoration and improvements.

SECTION 01530
PROTECTION OF EXISTING FACILITIES

- E. Permanent Resurfacing: In order to obtain a satisfactory junction with adjacent surfaces, the CONTRACTOR shall saw cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement, unless otherwise shown on the drawings.
- F. Final Restoration: Final restoration shall include the completion of all required pavement replacement of roadways, driveways, curbs, gutters, sidewalks and other existing improvements disturbed by the construction: final grading, placement of sod, installation or replacement of any trees or shrubs, repair of irrigation systems, pavement markings, etc., all complete and finished, acceptable to the ENGINEER.

1.05 EXISTING UTILITIES AND IMPROVEMENTS

- A. General: The CONTRACTOR shall protect all underground utilities and other improvements which may be impaired during construction operations. It shall be the CONTRACTOR'S responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations.
- B. Utilities to be Moved: In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon request of the CONTRACTOR, be notified by the CITY to move such property within a specified reasonable time. When utility lines that are to be removed are encountered within the area of operations, the CONTRACTOR shall notify the CITY a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.
- C. Where the proper completion of the Work requires the temporary or permanent removal and / or relocation of an existing utility or other improvement which is shown, the CONTRACTOR shall remove and temporarily replace or relocate such utility or improvement in a manner satisfactory to the CITY and the OWNER of the utility/facility. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the CONTRACTOR in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.
- D. CITY'S Right of Access: The right is reserved to the CITY and to the OWNER'S of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work of this Contract.
- E. Underground Utilities Shown or Indicated: Existing utility lines that are shown or the locations of which are made known to the CONTRACTOR prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired by the CONTRACTOR.
- F. Underground Utilities Not Shown or Indicated: In the event that the CONTRACTOR damages any existing utility lines that are not shown or the locations of which are not made known to the

SECTION 01530
PROTECTION OF EXISTING FACILITIES

CONTRACTOR prior to excavation by the CITY and Sunshine One-Call Notification, a written report thereof shall be made immediately to the CITY. The CONTRACTOR shall make the repairs immediately under the provisions for changes and extra work contained in the General Conditions.

- G. Approval of Repairs: All repairs to a damaged improvement are subject to inspection and approval by an authorized representative of the CITY before being concealed by backfill or other Work.
- H. No fill, excavation material, construction generated debris or equipment shall obstruct water valves, gas meters or sewer manholes. Water, sewer and gas service shall be made accessible to repair or maintenance crews representing the CITY or a privately-owned utility company.
- I. Maintaining in Service: All oil and gasoline pipelines, power, and telephone or other communication cable ducts, gas and water mains, irrigation lines, reuse lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the CITY are made with the owner of said utilities. The CONTRACTOR shall be responsible for and shall repair all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

1.06 TREES WITHIN STREET RIGHTS-OF-WAY AND PROJECT LIMITS

If any tree removal or relocation is required, the CONTRACTOR needs to coordinate with the ENGINEER, accordingly. All required permits related to tree removal are the responsibility of the CONTRACTOR.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01530

PART 1 – GENERAL

1.01 SITE ACCESS

- A. The CONTRACTOR shall make its own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the site of the Work. It shall be the CONTRACTOR's responsibility to construct and maintain any haul roads required for its construction operations.
- B. The CONTRACTOR will be responsible for monitoring the main gate for its personnel, equipment and material deliveries.

1.02 STORAGE

- A. Limited storage area is available within the work areas shown on the Drawings. Any equipment and materials stored here shall be in accordance with the manufacturer's recommendations and as indicated by the CITY.
- B. Responsibility for protection and safekeeping of equipment and materials will be solely that of the CONTRACTOR, and no claim shall be made against the CITY by reason 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.
- C. If the CONTRACTOR requires additional staging and storage area than shown on the Drawings, the CONTRACTOR shall obtain such areas from off site sources at no additional cost to the CITY.
- D. Upon completion of the Contract, the CONTRACTOR shall remove from the storage and work areas all of their equipment, temporary fencing, surplus materials, rubbish, etc., and restore the area to its original or better conditions.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

END OF SECTION 01550

PART 1 -- GENERAL

1.01 CHEMICALS

- A. All chemicals used during project construction or furnished for testing of project operation, whether herbicide, pesticide, disinfectant, polymer, reactant of other classification, will be required to show approval of either EPA or HUD. The handling, use, storage and disposal of such materials, containers or residues shall be in strict conformance with manufacturer and/or CONTRACTOR'S secured storage. Copies of antidote literature and a supply of antidotes shall be kept at the job site office.

1.02 DUST

- A. During all work for this Contract, the CONTRACTOR shall by the application of water and/or calcium chloride or other means, approved by the ENGINEER, eliminate dust annoyance to adjacent property, business establishments and the plant site in accordance with Article 7.21, Dust Control, of the General Conditions. The CONTRACTOR shall take all protective measures, to the satisfaction of the ENGINEER, necessary to ensure that dust and debris does not enter any of the mechanical or electrical equipment. The CONTRACTOR shall be responsible for the cleanup of existing buildings, equipment, controls, etc., which have become soiled due to the lack of proper dust control as determined by the ENGINEER. The CONTRACTOR shall provide daily application of water to all unpaved areas designated by the ENGINEER in the field and to the satisfaction of the ENGINEER in the field.

1.03 NOISE

- A. Noise resulting from the CONTRACTOR'S work shall not violate the Hollywood Code of Ordinance Chapter 100, with specific note to the restrictions of paragraph 100.05 or exceed the noise levels and other requirements stated in the Broward County Chapter 27 Pollution Control, relating to noise abatement in Broward County. The CONTRACTOR shall be responsible for curtailing noise resulting from his operation. He shall, upon written notification from the ENGINEER or the noise control officers, make any repairs, replacements, adjustments, additions and furnish mufflers when necessary to fulfill requirements.

1.04 EROSION ABATEMENT AND WATER POLLUTION

- A. It is imperative that the CONTRACTOR'S dewatering operations not contaminate or disturb the environment or properties adjacent to the Work. The CONTRACTOR, shall, therefore, schedule and control his operations to confine all runoff water from disturbed surfaces, water from dewatering and/or from excavation below the ground water table operations that becomes contaminated with lime silt, muck and other deleterious matter, fuels, oils, bitumens, calcium chloride, chemicals and other polluting materials.

**SECTION 01560
SPECIAL CONTROLS**

- B. The CONTRACTOR shall construct temporary stilling 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 his commencing work.

1.05 HURRICANE AND STORM WARNINGS

- A. As the schedule for this project coincides, in part, with the recognized South Florida hurricane season, the CONTRACTOR's attention is drawn to the possibility of hurricane conditions, or severe storm conditions, occurring at the plant site during the course of Contract work.
- B. Within 30-days of the date of Notice-to-Proceed, the CONTRACTOR shall submit to the ENGINEER and Owner a Hurricane Preparedness Plan. The plan should outline the necessary measures which the CONTRACTOR proposes to perform at no additional cost to the Owner in case of a hurricane warning.
- C. In the event of inclement weather, or whenever the ENGINEER shall direct, the CONTRACTOR shall, and will cause Sub-Contractors to protect carefully the Work and materials against damage or injury by reasons of failure on the part of the CONTRACTOR to so protect the Work. Such Work and materials so damaged shall be removed and replaced at the expense of the CONTRACTOR.
 - 1. Hurricane Watch: Upon designation of a hurricane watch, CONTRACTORS shall be responsible for storing all loose supplies and equipment on the job site that may pose a danger. In addition, the CONTRACTOR shall remove all bulkheads and plugs in pipelines that would impede drainage in the case of flooding. Structures that may be in danger of floatation shall be flooded. The CONTRACTOR shall also cooperate with CITY personnel in protecting other structures at the site.
 - 2. Hurricane Warning: No mobile "temporary facility" under the control of the City of Hollywood, or on City property, shall be staffed during a hurricane warning. CONTRACTOR facilities meeting these criteria shall comply.
- D. The CONTRACTOR is advised to take all necessary precautions to protect his equipment by moving it to higher ground if in an area subject to flooding. Known areas of Hollywood that would be subject to flooding from storm tides include:

Hollywood Blvd.
A1A
US Highway 1

North Lake Area
Sheridan Street
46th Avenue

South Lake Area
Dania Beach Blvd.
Hallandale Beach Blvd.

1.06 PESTS AND RODENTS

**SECTION 01560
SPECIAL CONTROLS**

- A. The CONTRACTOR shall be responsible for maintaining the jobsite free from litter, rubbish and garbage. He shall provide containers for the disposal of garbage and other materials that attract and are breeding places for pests and rodents. The CONTRACTOR shall provide the services of an exterminator to inspect the jobsite on a periodic basis and to provide service as required to control pests and rodents.

1.07 PERIODIC CLEAN-UP; BASIC SITE RESTORATION

- A. During construction, the CONTRACTOR shall regularly remove from the site all accumulated debris and surplus materials of any kind which result from his operations, or whenever the accumulation in excess of one truck load. Unused equipment and tools shall be stored at the CONTRACTOR'S yard or base of operations for the project.
- B. When the work involves installation of sewers, drains, water mains, manholes, underground structures, or other disturbance of existing features in or across streets, rights-of-way, easements, or private property, the CONTRACTOR shall (as the work progresses) promptly backfill, compact, grade and otherwise restore the disturbed area to a basic condition which will permit resumption of pedestrian or vehicular traffic and any other critical activity or function consistent with the original use of the land. Unsightly mounds of earth, large stones, boulders, and debris shall be removed so that the site presents a neat appearance.
- C. The CONTRACTOR shall perform the clean-up 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.
- D. 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 (5) days prior written notice to the CONTRACTOR, employ such labor and equipment as he deems necessary for the purpose, and all costs resulting therefrom shall be charged to the CONTRACTOR and deducted from the amounts of money that may be due him.

1.08 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 Contract and shall repair or replace damaged or lost materials and damage to structures.
- B. The CONTRACTOR shall be responsible for providing, and maintaining temporary fencing and gates and the daily securing of temporary fencing and gates used for construction purposes for the duration of the project.
- C. The CONTRACTOR shall strictly comply with working hours on the project site. Prior to any work outside of the standard working hours, the CONTRACTOR shall request the City's approval via written request (at least 8 hours in advance). The written request shall clearly define the work to be performed, the names of the employees, their employer and their trade and the hours and days during which the work is planned.

**SECTION 01560
SPECIAL CONTROLS**

The City is considering and the CONTRACTOR shall comply with additional security requirements including employee photo identification at all times on-site and employee parking passes.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

END OF SECTION 01560

SECTION 01570
TRAFFIC REGULATIONS AND MAINTENANCE OF TRAFFIC

PART 1 – GENERAL

1.01 TRAFFIC CONTROL

- A. CONTRACTOR shall obey all traffic laws and comply with all the requirements, rules and regulations of the State of Florida Department of Transportation (FDOT), the City of Hollywood, Broward County and other local authorities having jurisdiction, to maintain adequate warning signs, lights, barriers, etc., for the protection of traffic on public roadways and the treatment plant site.
- B. The CONTRACTOR shall maintain traffic and protect the public from all damage to persons and property within the Contract Limits, in accordance with the Contract Documents and all applicable state, city and local regulations. The CONTRACTOR shall conduct its construction operations so as to maintain and protect access, for vehicular and pedestrian traffic, to and from all properties and business establishments adjoining or adjacent to those streets affected by his operations, and to subject the public to a minimum of delay and inconvenience. Suitable signs, barricades, railing, etc. shall be erected and the work outlined by adequate lighting at night. Danger lights shall be provided as required. Watchmen, flagmen, and crossing guards shall be provided as may be necessary for the protection of traffic. Traffic Control and Maintenance of traffic during construction shall be included in the CONTRACTOR's bid and no additional payment shall be requested to the City for these activities
- C. For the protection of traffic in public or private streets and alleyways, the CONTRACTOR shall provide, place, and maintain all necessary barricades, traffic cones, warning signs, lights, and other safety devices in accordance with the requirements of the "Manual of Uniform Traffic Control Devices (MUTCD), Part VI, Traffic Controls for Street and Highway Construction and Maintenance Operations", published by U.S. Department of Transportation, Federal Highway Administration (ANSI D6.1).
- D. The CONTRACTOR shall submit a Maintenance of Traffic (MOT) Plan for ENGINEER and/or CITY approval at least 60 days prior to construction work.
- E. Prior to performing any work within or abutting the State rights-of-way, the Contractor shall submit a Maintenance of Traffic (MOT) Plan to FDOT for approval as required by the FDOT Utility Permit.
- F. All signs, signals, and barricades shall conform to the requirements of Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.
- G. All dirt spilled from the CONTRACTOR'S trucks on existing pavements shall be removed by the CONTRACTOR immediately and whenever in the opinion of the CITY the accumulation is sufficient to cause the formation of mud, dust, interference with traffic or create a traffic hazard.

SECTION 01570
TRAFFIC REGULATIONS AND MAINTENANCE OF TRAFFIC

- H. Areas designated by the Broward County Traffic Engineering Division as "Safe Walk Routes" shall adhere to the requirements of the Broward County Maintenance of Traffic School/Pedestrian.

1.02 TEMPORARY CROSSINGS

- A. General: Wherever necessary or required for the convenience of the public or individual residents at street or highway crossings, private driveways, or elsewhere, the CONTRACTOR shall provide suitable temporary bridges over unfilled excavations, except in such cases as the CONTRACTOR shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges, which written consent shall be delivered to the CITY prior to excavation. All such bridges shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the CONTRACTOR shall adopt designs furnished by said authority for such bridges, or shall submit designs to said authority for approval, as may be required.
- B. Street Use: Nothing herein shall be construed to entitle the CONTRACTOR to the exclusive use of any public street, alleyway, or parking area during the performance of Work hereunder, and it shall so conduct its operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such streets, alleyways, or parking areas. No street shall be closed to the public without first obtaining permission of the CITY and proper governmental authority. Where excavation is being performed in primary streets or highways, one lane in each direction shall be kept open to traffic at all times unless otherwise provided or shown. Toe boards shall be provided to retain excavated material if required by the CITY or the agency having jurisdiction over the street or highway. Fire hydrants on or adjacent to the Work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the CONTRACTOR to assure the use of sidewalks and the proper functioning of all gutters, sewer inlets, and other drainage facilities.
- C. The CONTRACTOR shall take all necessary precautions for the protection of the Work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. The CONTRACTOR shall station such guards or flaggers and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. All signs, signals, and barricades shall conform to the requirements of Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.
- D. The CONTRACTOR shall remove traffic control devices when no longer needed, repair all damage caused by installation of the devices, and shall remove post settings and backfill the resulting holes to match grade.
- E. Temporary Street Closure: If closure of any street is required during construction, a formal application for a street closure shall be made to the authority having jurisdiction at least 30

SECTION 01570
TRAFFIC REGULATIONS AND MAINTENANCE OF TRAFFIC

days prior to the required street closure in order to determine necessary sign and detour requirements. Detour signs shall be provided, installed prior to street closure, and removed after construction by the CONTRACTOR.

- F. Temporary Driveway Closure: The CONTRACTOR shall notify the CITY or occupant (if not owner-occupied) of closure of driveways to be closed more than one eight-hour work day, at least three working days prior to the closure. The CONTRACTOR shall minimize the inconvenience and minimize the time period that the driveways will be closed. The CONTRACTOR shall fully explain to the owner/occupant how long the work will take and when closure is to start.
- G. Temporary Bridges: Whenever necessary, the CONTRACTOR shall provide suitable temporary bridges or steel plates over unfilled excavations, except in such cases as the CONTRACTOR shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges or steel plates, which written consent shall be delivered to the ENGINEER prior to excavation. All such bridges or steel plates shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges or steel plates for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the CONTRACTOR shall adopt designs furnished by said authority for such bridges or steel plates, or shall submit designs to said authority for approval, as may be required.

1.03 CONTRACTOR PARKING

- A. The CONTRACTOR shall obtain off-site parking for all personnel vehicles as required.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01570

PART 1 - GENERAL

1.01 SCOPE:

- A. This SECTION covers the CITY's review procedures for CONTRACTOR's requests of acceptable substitute items of material and equipment. All requests for substitution shall be made no earlier than the Effective Date of the Contract. A determination of acceptability or rejection of the substitution request will be made in accordance with the Contract Documents.
- B. Requests received prior to the date established above will not be considered.
- C. Substitutions may be approved at the COUNTY's sole discretion where one or more of the following conditions apply:
 - 1. The substitution must be required for compliance with final interpretation of code requirements or regulations.
 - 2. The substitution must be due to the unavailability of the specified products, through no fault of the CONTRACTOR.
 - 3. The substitution may be requested when subsequent information discloses the inability of the specified products to perform properly or to fit in the designated space.
 - 4. The substitution may be requested when in the judgment of the CITY a substitution would be substantially to the CITY's best interests in terms of cost, time or other considerations.

1.02 SUBSTITUTION REQUEST

- A. Submit as required in SECTION 01300:
 - 1. Complete data substantiating compliance of the proposed substitution with the Contract Document
 - a. Product identification including MANUFACTURER's name and address
 - b. MANUFACTURER's literature including product description, performance and test data, and reference standards
 - c. Name and address of similar projects on which product was used and dates of installation
 - 2. Itemized comparison of proposed substitution with product or method specified
 - 3. Data relating to changes in the construction schedule
 - 4. Accurate cost data on proposed substitution in comparison with product or method specified
- B. In submitting the request for substitution, the CONTRACTOR makes the following representations:
 - 1. The CONTRACTOR has investigated the proposed product and has determined that it is equal or superior in all respects to that specified.
 - 2. The CONTRACTOR will provide the same warranty or guarantee for the substitution as for the product specified.

SECTION 01630
PRODUCT OPTIONS AND SUBSTITUTIONS

3. The CONTRACTOR will coordinate installation of the accepted substitution into the WORK, making such changes as may be required for the WORK to be completed in all respects.
4. The CONTRACTOR waives all claims for additional costs related to substitution that subsequently becomes apparent.
5. Cost data is complete and includes all related costs under the Contract.

1.03 CITY ENGINEERS REVIEW

- A. The CITY, in evaluating the request for substitution, will consider all variations of the proposed substitute from that specified to determine the acceptability of the proposal. The CITY may require the CONTRACTOR to furnish additional data about the proposed substitute necessary to make such a determination. The CITY will be the sole judge of acceptability, and no substitute will be ordered or installed without the CITY's prior written acceptance. 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. Substitutions will not be considered if:
 1. Substitutions are indicated or implied on Shop Drawings or product data submittals without a request submitted in accordance with this SECTION.
 2. Acceptance will require substantial revision to the Contract Documents

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01630

SECTION 01640
START-UP/CHECK-OUT/MANUFACTURER'S FIELD
SERVICES FOR CONTRACTOR FURNISHED EQUIPMENT

PART 1 - GENERAL

1.01 SCOPE:

- A. Summary of Work: This SECTION includes requirements of the CONTRACTOR in relation to services to be performed at the Site by the MANUFACTURERS and Suppliers of CONTRACTOR Furnished equipment, regarding the erection, start-up, and testing of CONTRACTOR Furnished equipment.
- B. Related Work Specified Elsewhere:
 - 1. SECTION 01300 – Submittals
 - 2. SECTION 01660– Equipment and System Performance and Operational Testing
 - 3. SECTION 01662 – Commissioning

1.02 SUBMITTALS:

- A. All submittals shall be in accordance with SECTION 01300.

1.03 SERVICES REQUIRED:

- A. The following services are to be provided for all CONTRACTOR Furnished Equipment and Materials under this Contract:
 - 1. Provide the services of Qualified Field personnel from the MANUFACTURER(s) or Supplier(s) of Equipment and Materials furnished by the CONTRACTOR and installed under this Contract and perform all required MANUFACTURER's Field Services. Qualified field personnel shall be certified by the MANUFACTURER of the specific product or system as having the necessary knowledge and experience to perform the required Field Services.
 - 2. Where such services are specified, the CONTRACTOR shall not perform any WORK related to the installation or operation of the Equipment and Materials furnished and installed under this Contract without direct supervision and guidance from the MANUFACTURER's or Supplier's Qualified Field personnel unless the CITY concurs otherwise, in writing.
 - 3. Where required, the MANUFACTURER's or Supplier's Qualified Field personnel shall perform the following:
 - a. Observe the erection, installation, start-up and testing of equipment.
 - b. Instruct and guide the CONTRACTOR in proper equipment installation, start-up, testing and operation procedures.
 - c. Supervise the initial start-up, operational check, and any required adjustments of the equipment.
 - d. Instruct the CITY's designated personnel in proper operation and maintenance of all CONTRACTOR Furnished equipment.
 - e. Furnish a written report, in accordance with SECTION 01300, to the CITY covering all WORK done at least once each week and when WORK on each item of equipment or system is completed.

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START-UP/CHECK-OUT/MANUFACTURER'S FIELD
SERVICES FOR CONTRACTOR FURNISHED EQUIPMENT

4. The CONTRACTOR shall provide at least five (5) working days advance notice prior to the arrival of any MANUFACTURER's and/or Supplier's Qualified Field personnel at the Site.
- B. The CONTRACTOR shall submit an equipment start-up/check-out plan (Plan) to the CITY for review. The Plan at a minimum shall include the equipment and components to be started/checked-out/tested, start-up/check-out/testing duration, personnel required, and details of procedures to be used.

PART 2 - PRODUCTS (Specified in applicable Sections)

PART 3 - EXECUTION

3.01 OPERATION AND TESTING:

- A. Placing Equipment in Operation:
 1. The CONTRACTOR shall place all Equipment and Materials installed under this Contract into successful operation according to instructions of the Supplier, MANUFACTURER, or their Qualified Field personnel, including making all required adjustments, tests, operation checks, plus the following:
 - a. Cleaning, sounding, blowing-out, and flushing of lubricating oil and water systems, and other pipelines.
 - b. All required lubrication, fuels, supplies, power, consumables, water, and labor for the duration of start-up and testing, and until Substantial Completion of the WORK.
 - c. Tests of lubrication system safety interlocks and system performance.
 - d. Final alignment checks and measurements made under observation of the CITY. Alignment checks shall include opening connections, if required, to ensure there are no abnormal stresses on equipment from pipes, ducts, or other attachments. Alignment shall be within tolerances specified by the MANUFACTURER, and the measurements shall be recorded and furnished to the CITY.
 - e. Motor rotation checks before connecting couplings.
 - f. Inspection of sleeve bearings for adequate contact.
 - g. Checking of anchor-bolt tensions, grout and shims. Tighten all anchor bolts with calibrated torque wrenches using care not to over stress the bolts.
 2. After "run-in" and acceptance of alignment, and where specified, affix major equipment in place using standard tapered dowels with jack-out nuts at the head ends to facilitate equipment removal.
 3. Record and submit all of the above operations on forms acceptable to the CITY.
 4. Provide all necessary attendants and personnel as part of the WORK to accomplish the above operations until such time as individual items, systems, equipment, or sections of the Project are acceptable for operation by the CITY.
 5. Provide attendants on a continuous basis, as required, to complete the start-up/check-out/testing procedures without interruption once they have been started.

SECTION 01640
START-UP/CHECK-OUT/MANUFACTURER'S FIELD
SERVICES FOR CONTRACTOR FURNISHED EQUIPMENT

B. Performance Tests:

1. Equipment and Materials Furnished by the CONTRACTOR:
 - a. The CITY may conduct acceptance tests after installation to determine if the Equipment and Materials installed as part of the WORK perform in accordance with Contract Documents. Final acceptance of Equipment and Materials will be based on the acceptable results of such tests.
 - b. No tests will be conducted on Equipment and Materials for which MANUFACTURER's Field Service is specified unless the MANUFACTURER's Field Representative is present and declares in writing that the Equipment and Materials are ready for testing.
 - c. The tests will be made as set forth in the Contract Documents unless the interested parties mutually agree upon some other manner of testing.

END OF SECTION 01640

SECTION 01641
START-UP/CHECK-OUT/MANUFACTURER'S FIELD
SERVICES FOR OWNER FURNISHED EQUIPMENT

PART 1 - GENERAL

1.01 SCOPE:

- A. Summary of Work: This SECTION includes requirements of the CONTRACTOR in relation to services to be performed at the Site by the MANUFACTURERS of Owner Furnished Equipment, with regard to installation, erection, start-up, and testing of Owner Furnished equipment. In general, for the equipment identified in the Supplemental Conditions that the Owner (CITY) is providing, the CONTRACTOR must coordinate and integrate delivery, installation, testing and Commissioning into the Project as though it were CONTRACTOR supplied.
- B. Where any field service is provided by the MANUFACTURERS of Owner Furnished equipment, as identified in the Supplementary Conditions, the CONTRACTOR shall not perform any WORK related to the installation or operation of such Equipment and Materials without direct observation and guidance of the MANUFACTURER's or Supplier's field personnel unless CITY concurs otherwise.
- C. The CONTRACTOR is required to coordinate the receipt of this material and equipment with his overall construction schedule.
- D. The CONTRACTOR will be responsible for off-loading upon delivery to the Site, assembly, installation, storage (in accordance with MANUFACTURER's recommendations), staging, security, scheduling, handling, start up, testing and Commissioning of Owner Furnished Equipment. The Supplemental Conditions include an additional responsibility for the CONTRACTOR to load, pickup and transport some owner furnished equipment.
- E. The CONTRACTOR will assume responsible custody upon delivery, as if it were CONTRACTOR furnished materials and equipment.
- F. The CONTRACTOR will be responsible for requesting data on Owner Furnished equipment in a timely manner to comply with test plan requirements in SECTION 01660.
- G. Related Work Specified Elsewhere:
 - 1. SECTION 01300 – Submittals
 - 2. SECTION 01660 - Equipment and System Performance and Operational Testing
 - 3. SECTION 01640 – Start-up/Check-out/Manufacturers Field Testing For Contractor Furnished Equipment
 - 4. SECTION 01662 Commissioning

1.02 SERVICES REQUIRED:

- A. The CONTRACTOR shall coordinate with the MANUFACTURER's representatives on Owner Furnished equipment to create a viable test plan for the system in which each component or piece of equipment is to be installed. Submittal of a testing plan shall be included as a milestone in the construction schedule per SECTION 01660. The testing plan at a minimum shall include components to be started/checked out, personnel required, details of procedures to be used, and safeguards to be employed.

SECTION 01641
START-UP/CHECK-OUT/MANUFACTURER'S FIELD
SERVICES FOR OWNER FURNISHED EQUIPMENT

PART 2 - PRODUCTS (Specified in applicable Sections)

PART 3 - EXECUTION

3.01 OPERATION AND TESTING:

A. Placing Equipment in Operation:

1. Place all Owner Furnished Equipment and Materials installed under this Contract into successful operation according to instructions of the Supplier, MANUFACTURER, or field representative, including making all required adjustments, tests, operation checks, and the following:
 - a. Cleaning, sounding, blowing-out, and flushing of lubricating oil and water systems, and other pipelines.
 - b. Lubrication, fuels, supplies, power, consumables, water, and labor to be supplied by the CONTRACTOR for the duration of start-up and testing, and until substantial completion of the WORK.
 - c. Tests of lubrication system safety interlocks and system performance.
 - d. Final alignment checks and measurements made under observation of the CITY. Alignment checks shall include opening connections, if required, to ensure there are no abnormal stresses on equipment from pipes, ducts, or other attachments. Alignment shall be within tolerances specified by the MANUFACTURER, and measurements shall be recorded and furnished to the CITY.
 - e. Motor rotation checks before connecting couplings.
 - f. Inspection of sleeve bearings for adequate contact.
 - g. Checking of anchor-bolt tensions, grout and shims. Tighten anchor bolts with calibrated torque wrenches using care not to over stress bolts.
2. After "run-in" and acceptance of alignment, affix major equipment as specified and allowed for in Contract Documents.
3. Record all above operations on forms acceptable to the CITY.
4. Furnish all necessary attendants and personnel as part of the WORK to accomplish the above operations until such time as individual items, systems, equipment, or sections of the plant are acceptable for operation by CITY.
5. Provide attendants on a continuous basis as required to complete events without interruption once they have been started.
6. The CONTRACTOR shall provide labor, lubricants and fuels and other consumables sufficient for testing and placing equipment in operation.

B. Performance Tests:

1. Equipment and Materials Furnished by the Owner:
 - a. The CITY may conduct acceptance tests after installation to determine if the Equipment and Materials installed as part of the WORK perform in accordance with Contract Documents. Final acceptance of Equipment and Materials or services rendered by the CONTRACTOR will be based on acceptable results of such tests

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START-UP/CHECK-OUT/MANUFACTURER'S FIELD
SERVICES FOR OWNER FURNISHED EQUIPMENT

and certification, by the MANUFACTURER, that the equipment is installed and operating in accordance with their recommendations.

- b. No tests will be conducted on Equipment and Materials for which the MANUFACTURER's Field Service is specified unless the MANUFACTURER's Field Representative is present and declares in writing that the Equipment and Materials are ready for such test.
- c. The tests will be made as set forth in the Contract Documents unless the interested parties mutually agree upon some other manner of testing.
- d. The CONTRACTOR must make himself aware of pre-operation procedures and required testing of Owner Furnished Equipment, in order to comply with SECTION 01660.

END OF SECTION 01641

SECTION 01660

EQUIPMENT AND SYSTEM PERFORMANCE AND OPERATIONAL TESTING

PART 1 - GENERAL

1.01 SCOPE:

- A. This SECTION covers the CITY's review procedures for CONTRACTOR's requests of acceptable substitute items of material and equipment. All requests for substitution shall be made no earlier than the Effective Date of the Contract. A determination of acceptability or rejection of the substitution request will be made in accordance with the Contract Documents.
- B. Requests received prior to the date established above will not be considered.
- C. Substitutions may be approved at the CITY's sole discretion where one or more of the following conditions apply:
 - 1. The substitution must be required for compliance with final interpretation of code requirements or regulations.
 - 2. The substitution must be due to the unavailability of the specified products, through no fault of the CONTRACTOR.
 - 3. The substitution may be requested when subsequent information discloses the inability of the specified products to perform properly or to fit in the designated space.
 - 4. The substitution may be requested when in the judgment of the CITY a substitution would be substantially to the CITY's best interests in terms of cost, time or other considerations.

1.02 SUBSTITUTION REQUEST

- A. Submit as required in SECTION 01300:
 - 1. Complete data substantiating compliance of the proposed substitution with the Contract Document
 - a. Product identification including MANUFACTURER's name and address
 - b. MANUFACTURER's literature including product description, performance and test data, and reference standards
 - c. Name and address of similar projects on which product was used and dates of installation
 - 2. Itemized comparison of proposed substitution with product or method specified
 - 3. Data relating to changes in the construction schedule
 - 4. Accurate cost data on proposed substitution in comparison with product or method specified
- B. In submitting the request for substitution, the CONTRACTOR makes the following representations:
 - 1. The CONTRACTOR has investigated the proposed product and has determined that it is equal or superior in all respects to that specified.
 - 2. The CONTRACTOR will provide the same warranty or guarantee for the substitution as for the product specified.

SECTION 01660

EQUIPMENT AND SYSTEM PERFORMANCE AND OPERATIONAL TESTING

3. The CONTRACTOR will coordinate installation of the accepted substitution into the WORK, making such changes as may be required for the WORK to be completed in all respects.
4. The CONTRACTOR waives all claims for additional costs related to substitution that subsequently becomes apparent.
5. Cost data is complete and includes all related costs under the Contract.

1.03 CITY ENGINEERS REVIEW

- A. The CITY, in evaluating the request for substitution, will consider all variations of the proposed substitute from that specified to determine the acceptability of the proposal. The CITY may require the CONTRACTOR to furnish additional data about the proposed substitute necessary to make such a determination. The CITY will be the sole judge of acceptability, and no substitute will be ordered or installed without the CITY's prior written acceptance. 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. Substitutions will not be considered if:
 1. Substitutions are indicated or implied on Shop Drawings or product data submittals without a request submitted in accordance with this SECTION.
 2. Acceptance will require substantial revision to the Contract Documents

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01630

PART 1 – GENERAL

1.01 GENERAL:

- A. The Contractor shall obtain and pay for all permits and fees in connection with the work. The Contractor shall also initiate the City's review and secure City approval prior to commencement of the work. Inspection by City personnel is required in addition to, not in lieu of, other municipal, county, state and/or federal regulatory agency inspections. No project will be accepted until it has passed all inspections, including pavement installation or replacement.
- B. The Contractor shall familiarize himself with, and comply with, all requirements of required permits governing all work under this Contract. The Contractor's particular attention is called to any Special Conditions of the permits relating to construction procedures, excavation and backfill requirements, open trench restrictions, turbidity control, traffic control, pavement restoration and all other general and special conditions. In the event any of the conditions of the permits are in conflict with the requirements of these Specifications, the most stringent conditions shall take precedence.
- C. Any deviations from the Plans, Specifications or required permits, must first be approved by the City even if approval for the change has been given by the permitting agency.
- D. The Contractor shall fully assume all obligations and responsibilities, monetary and otherwise, imposed by the permits throughout the life of the project, including but not limited to:
 - 1. Proper maintenance of permit documentation and field records
 - 2. Proper maintenance of all permit-required field controls, including but not limited to the following:
 - a. Chemical spill prevention
 - b. Erosion, sedimentation, turbidity and dust retention
 - c. Protection of storm drainage facilities
 - d. Temporary vehicular and pedestrian traffic controls
 - 3. Payment of fines resulting from permit non-compliance
 - 4. Maintaining active permits and obtaining permit extensions when needed
 - 5. Providing certifications of all materials and equipment installed
 - 6. Performing successful inspections and tests required by the permits
 - 7. Correcting any work that is not in compliance with permits
 - 8. Performing successful equipment start-ups
 - 9. Providing Operation and Maintenance (O&M) manuals for installed equipment as required by permits
 - 10. Repair of any permanent traffic controls impacted by Contractor
 - 11. Close-out of all permits
- E. All surveying required by the project permits will be done by the Contractor's Florida registered Land Surveyor. This includes staking out limits of construction.

PART 2 - PRODUCTS(Not Used)

PART 3 - EXECUTION(Not Used)

END OF SECTION 01740

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All applicable provisions of the Bidding and Contract Requirements, and General Conditions shall govern the WORK under this section.

1.02 WORK INCLUDED

- A. The work included in this section consists of furnishing all labor, supplies, equipment and materials necessary to complete the installation of sod and associated materials herein after listed and as shown on the plans.

1.03 RELATED WORK

- A. N/A.

1.04 QUALITY ASSURANCE

- A. Sodding work shall be performed by a firm specializing in sodding.
- B. Source Quality Control: Ship sod with certificates of inspection as required by governing authorities.
- C. Do not make substitutions. If specified sod is not obtainable, submit proof of non-availability to ENGINEER, together with proposal for use of equivalent material.
- D. Analysis and Standards: Package standard products with manufacturer have certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agriculture Chemists, wherever applicable.

1.05 SUBMITTALS

- A. Submit the following in accordance with Conditions of Contract and General Conditions.
- B. Plant and Material Certifications:
 - 1. Certificate of inspection as required by governmental authorities.
 - 2. Manufacturer's or vendor's certified analysis for soil amendments or fertilizer materials.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Packaged Materials: Deliver packaged materials in containers showing weight,

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analysis, and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.

- B. Sod: Time delivery so that sod will be placed within 24 hours after stripping. Protect sod against drying.
- C. Transporting:
 - 1. Sod transported to the project in open vehicles shall be covered with tarpaulin or other suitable covers securely fastened to the body of the vehicle to prevent injury to the sod material. Closed vehicles shall be adequately ventilated to prevent overheating of the sod. Evidence of inadequate protection against drying out in transit shall be cause for rejection.
 - 2. Sod shall be kept moist, fresh and protected at all times. Such protection shall encompass the entire period during which the sod is in transit, being handled, or in temporary storage.
 - 3. Upon arrival at the temporary storage location or the site of work, sod shall be inspected for proper shipping procedures. Should the roots be dried out, the ENGINEER will reject the sod. When sod has been rejected, the CONTRACTOR shall remove it at once from the area of the work and replace it.
 - 4. Unless otherwise authorized by the ENGINEER, the CONTRACTOR shall notify the ENGINEER at least 48 hours in advance of the anticipated delivery date of sod material. A legible copy of the invoice, showing species and variety of sod included for each shipment shall be submitted to the ENGINEER. Certificate of Inspection must accompany each sod shipment.

1.07 JOB CONDITIONS

- A. Begin installation of sod after preceding related work is accepted.
- B. Environmental Requirements:
 - 1. Install sod during months acceptable to the ENGINEER.
 - 2. Do not install sod on saturated soil.
- C. Protection: Erect signs and barriers to control vehicular traffic.
- D. Utilities: Determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until parties concerned mutually agree upon removal.

1.08 SEQUENCING AND SCHEDULING

- A. Correlate planting with specified maintenance periods to provide maintenance from date of substantial completion.
- B. Coordination with sodding: Plant trees, palms and shrubs after final grades are established and prior to planting of sod, unless otherwise acceptable to ENGINEER. If planting of trees, palms and shrubs occurs after sod work, protect sod areas and promptly repair damage to lawns resulting from planting operations.

1.09 SPECIAL PROJECT WARRANTY

- A. Warranty sod through specified lawn maintenance period, and until final acceptance.

PART 2 - PRODUCTS

2.01 PLANTING SOIL

- A. Provide new planting soil that is fertile, friable, natural loam, surface soil, reasonably free of subsoil, clay lumps, brush, weeds and other litter, and free of roots, stumps, stones larger than 1 inch in any dimension, and other extraneous or toxic matter harmful to plant growth.
- B. Obtain planting soil from local sources or from areas having similar soil characteristics to that found at project site.
- C. Refer to Section 162 of the "FDOT Standard Specifications for Road and Bridge Construction" dated 2007 for Topsoil Specifications.

2.02 COMMERCIAL FERTILIZER

- A. For sod, provide fertilizer with percentage of nitrogen required to provide not less than 1 pound of actual nitrogen per 1,000 square foot of lawn area and not less than 4 percent phosphoric acid and 2 percent potassium. Provide nitrogen in a form that will be available to sod during initial period of growth; at least 50 percent of nitrogen to be organic form.

2.03 SOD

- A. Provide strongly rooted sod, not less than 2 years old, free of weeds and undesirable native grasses, and machine cut to pad thickness of 1-1/2 inch (plus or minus 1/4 inch), excluding top growth and thatch. Provide only sod capable of vigorous growth and development when planted (viable, not dormant).
- B. Provide sod uniform pad sizes with maximum 5 percent deviation in either length or width. Broken pads with uneven ends will not be acceptable. Sod pads incapable of

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supporting their own weight when suspended vertically with a firm grasp on upper 10 percent of pad will be rejected.

- C. Provide sod composed of the following:
 - 1. St. Augustine
 - 2. Bahia
- D. Sod shall be nursery grown on cultivated mineral agricultural soils. Sod shall have been mowed regularly and carefully maintained from planting to harvest.
- E. American Sod Producers Association (ASPA) Grade: Nursery Grown or Approved. Field grown sod is not acceptable.
- F. Furnished in pads:
 - 3. Size:
 - a. Length: 24 inches plus or minus 5%.
 - b. Width: 18 inches plus or minus 5%
 - c. Thickness: 1-1/2 inches excluding top growth and thatch.
 - 4. Not stretched, broken or torn.
- G. Uniformly mowed height when harvested: 2 inches.
- H. Thatch: Maximum 1/2 inch uncompressed.
- I. Inspected and found free of disease, nematodes, pests, and pest larvae, by entomologist of State Department of Agriculture.
- J. Weeds:
 - 1. Free of Bermuda grass, nut grass or other objectionable weeds.
- K. Uniform in color, leaf texture, and density.

2.04 **WATER**

- A. Water shall be potable, from municipal water supplies or other sources which are approved by a public health department.

2.05 **FERTILIZER**

- A. FS O-F-241c (1), Grade A or B.
- B. The chemical designation shall be 1-8-8, with at least 50 percent of the nitrogen from a non- water-soluble organic source.

2.06 HERBICIDES

- A. As recommended by the State Department of Agriculture.

2.07 STAKES

- A. Softwood, 3/4-inch diameter, 8-inch length.

PART 3 - EXECUTION

3.01 PREPARATION OF GROUND SURFACE

- A. Before mixing, clean planting soil of roots, plants, sods, stones, clay lumps, and other extraneous material harmful or toxic to plant growth.
- B. Mix specified fertilizers with planting soil as necessary at rates specified. Delay mixing fertilizer if planting will not allow placing of planting soil within a few days.
- C. For sod, mix planting soil either prior to planting or apply on surface of topsoil and mix thoroughly before planting.

3.02 PREPARATION OF PLANTING BEDS

- A. Loosen subgrade of lawn areas to a minimum depth of 4 inches. Remove stones measuring over 1 1/2 inches in any dimension. Remove sticks, stones, rubbish, and other extraneous matter. Limit preparation to areas, which will be planted promptly after preparation.
- B. Spread planting soil to minimum depth of 2 inches or as required meeting lines, grades, and elevations shown, after light rolling and natural settlement. Add specified fertilizer and mix thoroughly into upper 4 inches of topsoil.
- C. Place approximately 1/2 of total amount of topsoil required. Work into top of loosened subgrade to create a transition layer and then place remainder of planting soil. Add specified soil amendments and mix thoroughly into upper 4 inches.
- D. Where sod is to be planted in areas that have not been altered or disturbed by excavating, grading, or stripping operations, prepare soil for lawn planting as follows: Till to a depth of not less than 6 inches. Apply fertilizers as specified. Remove high areas and fill in depressions. Till soil to a homogenous mixture of fine texture, free of lumps, clods, stones, roots and other extraneous matter.
- E. Prior to preparation of unchanged areas, remove existing grass, vegetation and turf. Dispose of such material outside of OWNER's property. Do not turn existing vegetation over into soil being prepared for lawns.

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- F. Allow for sod thickness in areas to be sodded.
- G. Apply specified commercial fertilizer at rates specified and thoroughly mix into upper 2 inches of topsoil. Delay application of fertilizer if lawn planting will not follow within a few days.
- H. Fine grade sod areas to smooth, even surface with loose, uniformly fine texture. Roll, rake, and drag lawn areas, remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas, which can be planted immediately after grading.
- I. Moisten prepared sod areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting lawns. Do not create a muddy soil condition.
- J. Restore sod areas to specified condition, if eroded or otherwise disturbed, after fine grading and prior to planting.

3.03 SODDING NEW LAWNS

- A. Lay sod within 24 hours from time of stripping.
- B. Lay sod to form solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger strips to offset joints in adjacent courses. Work from boards to avoid damage to subgrade or sod. Tamp or roll lightly to ensure contact with subgrade. Work sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent grass.
- C. Anchor sod on slopes with wood pegs to prevent slippage.
- D. Water sod thoroughly with a fine spray immediately after planting.

3.04 MAINTENANCE

- A. Begin maintenance immediately after planting.
- B. Maintain lawns for not less than 30 days after substantial completion, and longer as required to establish an acceptable lawn.
- C. Maintain sod by watering, fertilizing, weeding, mowing, trimming, and other operations such as rolling, regrading and replanting as required to establish a smooth, acceptable lawn, free of eroded or bare areas.
- D. Mowing:
 - 1. Whenever grass reaches a height of 3 inches, it shall be cut back to 2 inches with all clippings removed.

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2. After two mowings, CONTRACTOR shall topdress the sod with an application of fertilizer at the rate of 1 pound of actual nitrogen per 1,000 square feet.

3.05 CLEANUP AND PROTECTION

- A. During sodding work, keep pavements clean and work area in an orderly condition.
- B. Protect sodding work and materials from damage due to landscape operations, operations by other CONTRACTORS and trades, and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged sod work as directed.

3.06 INSPECTION AND ACCEPTANCE

- A. Sod areas will be accepted when in compliance with all the following conditions:
 1. The roots are thoroughly attached to the soil.
 2. Absence of visible joints.
 3. All areas show a uniform stand of specified grass in healthy condition.
 4. At least 60 days have elapsed since the completion of the work in this section.
- B. When inspected sod work does not comply with requirements, replace rejected work and continue specified maintenance until reinspected by ENGINEER and found to be acceptable. Remove rejected plants and materials promptly from project site.
- C. Procedure:
 1. The CONTRACTOR shall submit a request for acceptance in writing to the ENGINEER. Request must be received not less than 10 days before the anticipated date for final inspection.
 - 2.
 3. Upon completion of all repairs and/or renewals required by ENGINEER at the inspection, the ENGINEER will verify the completeness of the work and then notify the OWNER in writing that the work is accepted.
 - 4.
 5. Upon completeness, the OWNER will assume maintenance of all sod areas.

3.07 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be based on actual quantities installed as more specifically discussed and described in SECTION 01025 of MEASUREMENT AND PAYMENT.

END OF SECTION 02910

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All applicable provisions of the Bidding and Contract Requirements, and General Conditions shall govern the WORK under this section.

1.02 WORK INCLUDED

- A. Provide all labor, materials, necessary equipment and services to complete the concrete work, as indicated on the drawings, as specified herein or both, except as for items specifically indicated as "NIC ITEMS".
- B. Including but not necessarily limited to the following:
 - 1. Form work, shoring, bracing and anchorage.
 - 2. Concrete reinforcement and accessories.
 - 3. Cast-in-place concrete.
 - 4. Plugging abandoned pipelines and/or structures in place.

1.03 RELATED WORK

- A. Section 03300 - Cast-in-Place Concrete.

1.04 QUALITY ASSURANCE

- A. All work shall be in accordance with ACI 301, latest edition, a copy of which shall be maintained on site.
- B. Requirements of Regulatory Agencies: perform work in accordance with local building and other applicable codes.
- C. Installation: Performed only by skilled laborers with satisfactory record of performance on completed projects of comparable size and quality.
- D. Inspection and Testing:
 - 1. Test Cylinders - As per ASTM C-39.
 - a. Minimum of three (3) concrete test cylinder shall be taken for every 75 or less cubic yards of concrete placed each day.
 - b. Minimum of one (1) slump test shall be taken during any cold weather

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concreting, and be cured on job site under same conditions as the concrete it represents.

2. Slump Test - As per ASTM C-143.
 - a. Minimum of one (1) slump test shall be taken for each set of test cylinders taken.

1.05 SUBMITTALS

A. Test Reports: Reports of concrete compression, yield, air content and slump tests.

B. Certificates:

1. Manufacturer's certification that materials meet specification requirements.
2. Material content per cubic yards of each class of concrete furnished.
 - a. Dry weights of cement.
 - b. Saturated surface-dried weights of fine and course aggregate.
 - c. Quantities, type and name of all mixtures.
 - d. Weight of water.
3. Ready-mix delivery tickets as per ASTM C-94.

C. Shop Drawings:

1. Show sizes and dimensions for fabrication and placing of reinforcing steel and bar supports.
2. Indicate reinforcement sizes, spaces, locations and quantities or reinforcing steel, and wire fabric, bending and cutting schedules, splicing and supporting and spacing devices.
3. Indicate formwork dimensioning, materials, arrangement of joints and ties.
4. Shop drawings shall be prepared under seal of a Professional Structural Engineer, registered in the State of Florida.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver reinforcement to project site in bundles marked with metal tags indicating bar size and length.
- B. Handle and store materials to prevent contamination.

1.07 JOB CONDITIONS

- A. Allowable concrete temperatures:
 - 1. Hot weather: Maximum 90 degrees F as per ASTM C-94.
- B. Do not place concrete during rain, unless protection is provided.

PART 2 - PRODUCTS

2.01 FORM MATERIALS

- A. Materials shall conform to ACI 301, latest edition.
- B. Plywood forms: Douglas Fir Species, solid one side, form grade, sound undamaged sheets.
- C. Lumber: Southern Pine Species, No. 2 Grade, with grade stamp clearly visible.
- D. Form Ties: Removable, snap-off metal, of fixed and adjustable length, cone ends.
- E. Tubular Column Type: Round, spirally wound laminated fiber material, clearly visible.

2.02 REINFORCING STEEL

- A. Reinforcing steel shall conform to ASTM A615, 60 ksi yield grade billet steel reformed bars; uncoated finish.
- B. Welded steel wire fabric shall conform to ANSI/ASTM A185, plain type; coiled rolls, uncoated finish.

2.03 CONCRETE MATERIALS

- A. Cement: shall conform to ASTM C150, normal Type II Portland, gray color.
- B. Fine and coarse aggregate shall conform to ASTM C33.
- C. Water: clean and not detrimental to concrete.

2.04 ADMIXTURES

- A. Air Entraining: ASTM C-260
- B. Chemical: Type (as required) ASTM C-494.

- C. Fly Ash and Pozzolans: ASTM C-618
- D. Color - Conditioned Concrete: ASTM C-494 and ASTM C-979

2.05 ACCESSORIES

- A. Non-shrink grout: pre-mixed compound with non-metallic aggregate, cement, water reducing and plasticizing agents; capable of minimum compressive strength of 3500 psi.
- B. Construction joints: locate and install construction joints, which are not shown on drawings, so as not to impair strength and appearance of the structure, as acceptable to the ENGINEER. Place construction joints perpendicular to the main reinforcement, continue reinforcement across construction joints.
- C. Expansion joints: shall be a minimum of 3/4-inch thick asphalt impregnated fiberboard as per ASTM D-1751.
- D. Form release agent shall be a colorless material, which will not stain concrete, absorb moisture or impair natural bonding or color characteristics of coating intended for use on concrete.
- E. Water shall be clear and potable.

2.06 CURING MATERIALS

- A. Water shall be clean and potable.
- B. Absorptive mat shall be burlap fabric of 9 oz./sq. yd. clean, roll goods complying with AASHTO M182, Class 3.
- C. Membrane curing compound shall conform to ASTM C309.
- D. Clear Sealer: "Clear Bond" as manufactured by Guardian Chemical Co., Dayton Day-Chem Cure-W (J-9-A) or approved equal.
- E. Color curing compound shall be liquid membrane-forming conforming to ASTM C 309 two-component Lithochrome Colorwax by L.M. Scofield Company, or approved equal, color to match admixture for color-conditioned concrete.

2.07 CONCRETE MIX

- A. Mix concrete in accordance with ASTM C94.
- B. Concrete:

1. Compressive strength (28 days): 3000 psi.
 2. Slump: 4(±) 1 inch.
- C. Concrete / Flowable fill for grouting and plugging:
1. Compressive strength (28 days) 2000 psi.
 2. Slump: as required to grout and plug.

PART 3 - EXECUTION

3.01 FORMWORK ERECTION

- A. Verify lines, levels, and measurement before proceeding with formwork.
- B. Hand trimmed sides and bottom of earth forms; remove loose dirt.
- C. Align form joints.
- D. Do not apply form release agent where concrete surfaces receive special finishes or applied coatings, which may be affected by agent.
- E. Coordinate work of other sections in forming and setting openings, slots, recesses, chases, sleeves, bolts, anchors and other inserts.

3.02 REINFORCING

- A. Place, support and secure reinforcement against displacement.

3.03 PLACING CONCRETE

- A. Color Conditioned concrete, when batching, shall not be less than one-third of the capacity of the mixing drum (a minimum of four yards for a ten yard mixer) and will be in full cubic yard increments.
- B. Notify ENGINEER minimum 24-hours prior to commencement of concreting operations.
- C. Scratch, float, trowel, broom or belt finish surfaces, as scheduled or indicated on the Drawings.
- D. Place 2000 psi concrete for pugging and grouting pipelines and structures in-place as required after proper connection to new service and function of system is complete.

3.04 TOLERANCES

**SECTION 03010
CONCRETE**

- A. Provide Class B tolerance to floor slabs according to ACI 301. Pitch to drains 1/4 inch per foot.

3.05 FINISHES FOR EXPOSED SURFACES

- A. Provide exposed surfaces with finishes as called for on the Drawings.

3.06 CONCRETE CURING

- A. Curing for standard grey work after finishing, cure concrete by keeping moist for one (1) week after placement. Floors and vertical surfaces may be sprayed with an approved curing compound to retard evaporation of water, if spraying is not objectionable because of future finishing requirements. Begin curing operations as soon as concrete has attained its initial set. Keep exposed concrete surface moist for at least one (1) week.
- B. Apply a liquid membrane-forming compound, conforming with ASTM C 309, color to match that of the color condition concrete. Apply on flat work immediately after the finishing operation pursuant to the manufacturers recommendations.

3.07 MEASUREMENT AND PAYMENT

- A. No separate measurement and payment is provided for work covered by this Section. All costs in connection with concrete work shall be included in the bid price of any item in the Item Response Form for which concrete products, materials, or appurtenances are required.

END OF SECTION 03010

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All applicable provisions of the Bidding and Contract Requirements, and General Conditions shall govern the WORK under this section.

1.02 WORK INCLUDED

- A. Formwork for Cast-In-Place Concrete, with shoring, bracing, and anchorage.
- B. Openings for other affected work.
- C. Form accessories.
- D. Stripping forms.

1.03 RELATED WORK

- A. Section 03010 - Concrete.
- B. Section 03200 - Concrete Reinforcement.
- C. Section 03300 - Cast-In-Place Concrete.

1.04 SYSTEM DESCRIPTION

- A. Design, engineer and construct formwork, shoring and bracing to meet design code requirements, so that resultant concrete conforms to required shapes, lines, and dimensions.

1.05 QUALITY ASSURANCE

- A. Construct and erect concrete formwork in accordance with ACI 301 and 347.

1.06 SUBMITTALS

- A. Indicate pertinent dimensions, materials, and arrangement of joints and ties.
- B. Prepare shop drawings under seal of Professional Structural Engineer registered in the State of Florida.
- C. Manufacturers certification that materials meet specification requirements.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle materials in accordance with manufacturers recommendations.
- B. Deliver form materials in manufacturer's packaging with installation instructions.

- C. Store off ground in ventilated and protected area to prevent deterioration from moisture or damage.
- D. Remove packaging from void forms.

PART 2 - PRODUCTS

2.01 FORM MATERIALS

- A. Plywood: Douglas Fir Species; medium density overlaid one side grade; sound, undamaged sheets with straight edges.
- B. Lumber: Southern Pine Species; No. 2 grade; with grade stamp clearly visible.
- C. Tubular Column: Round, of spirally wound laminated fiber type; surface treated with release agent; of size required.

2.02 FORMWORK ACCESSORIES

- A. Form Ties: Snap-off metal of adjustable length; cone type; 1 1/2 inch break back dimension; free of defects that will leave holes no larger than 1-1/4 inches diameter in concrete surface.
- B. Form Release Agent: Colorless material which will not stain concrete, absorb moisture, or impair natural bonding in color characteristics of coating intended for use on concrete.
- C. Fillets for Chamfered Corners: Wood strips or rigid PVC plastic in maximum possible lengths.
- D. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required; or strength and character to maintain formwork in place while placing concrete.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify lines, levels, and measurements before proceeding with formwork.

3.02 PREPARATION

- A. Hand-trim sides and bottoms of earth forms; remove loose dirt prior to placing concrete.
- B. Minimize form joints. Symmetrically align joints and make weathertight to prevent

leakage of mortar.

- C. Arrange and assemble formwork to permit dismantling, stripping, so that concrete is not damaged during its removal.
- D. Arrange forms to allow stripping without removal of principal shores, where required to remain in place.

3.03 ERECTION

- A. Provide bracing to ensure stability of formwork. Strengthen formwork liable to be overstressed by construction loads.
- B. Camber slabs and beams to achieve ACI 301 tolerances.
- C. Provide temporary ports in formwork to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain. Close ports with tight fitting panels, flush with inside face of forms, neatly lifted so that joints will be apparent in exposed concrete surfaces.
- D. Provide expansion strips on external corners of beams and columns, where exposed.
- E. Install void forms. Protect from moisture before concrete placement. Protect from crushing during concrete placement.
- F. Construct formwork to maintain tolerances in accordance with ACI 301.

3.04 APPLICATION OF FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's instructions. Apply prior to placing reinforcing steel, anchoring devices, and embedded items.
- B. Do not apply form release agent where concrete surfaces are scheduled to receive special finishes or applied coverings, which may be affected by agent. Soak contact surfaces of untreated forms with clean water. Keep surfaces wet prior to placing concrete.

3.05 INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Provide formed openings where required for work embedded in or passing through concrete.
- B. Coordinate work of other sections in forming and setting openings, slots, recesses, chases, sleeves, bolts, anchors, and other inserts.

- C. Install accessories in accordance with manufacturer's instructions, level and plumb. Ensure items are not disturbed during concrete placement.

3.06 FORM REMOVAL

- A. Notify ENGINEER prior to removing formwork.
- B. Do not remove forms and shoring until concrete has sufficient strength to support its own weight, and construction and design loads which may be imposed upon it. Remove load-supporting forms when concrete has attained 75 percent of required 28-day compressive strength, provided construction is reshored.
- C. Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 degrees F for 24-hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained.
- D. Formwork supporting weight of concrete, such as beam soffits, joints, slabs and other structural elements, may not be removed in less than 14 days and until concrete has attained design minimum compressive strength at 28-days. Determine potential compressive strength of in-place concrete by testing field-cured specimens representative of concrete location of members.
- E. Reshore structural members due to design requirements or construction conditions to permit successive construction.
- F. Remove formwork progressively so no unbalanced loads are imposed on structure.
- G. Do not damage concrete surfaces during form removal.
- H. Store reusable forms for exposed architectural concrete to prevent damage to contact surfaces.
- I. Remove formwork in same sequence as concrete placement to achieve similar concrete surface coloration.

3.07 CLEANING

- A. Clean forms to remove foreign matter as erection proceeds.
- B. Ensure that water and debris drain to exterior through clean-out ports.

3.08 MEASUREMENT AND PAYMENT

SECTION 03100
CONCRETE FORM

- A. No separate measurement and payment is provided for work covered by this Section. All costs in connection with concrete formwork shall be included in the bid price of any item in the Item Response Form for which concrete formwork is required.

END OF SECTION 03100

**SECTION 03200
CONCRETE REINFORCEMENT**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All applicable provisions of the Bidding and Contract Requirements, and General Conditions shall govern the WORK under this section.

1.02 WORK INCLUDED

- A. Reinforcing steel bars, welded steel wire fabric, fabricated steel bar or rod mats for cast-in-place concrete.
- B. Support chairs, bolsters, bar supports, spaces, for supporting reinforcement.

1.03 RELATED WORK

- A. Section 03010 - Concrete.
- B. Section 03100 - Concrete Formwork.
- C. Section 03300 - Cast-In-Place Concrete.

1.04 QUALITY ASSURANCE

- A. Perform concrete reinforcement work in accordance with CRSI Manual and Standard Practice, and Documents 63 and 65.
- B. Conform to ACI 301.

1.05 SUBMITTALS

- A. Indicate sizes, spacings, locations and quantities of reinforcing steel, bending and cutting schedules, splicing, stirrup spacing, supporting and spacing devices.
- B. Prepare shop drawings under seal of Professional Structural ENGINEER registered in the State of Florida.
- C. Submit mill test certificates and supplied concrete reinforcing, indicating physical and chemical analysis.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Reinforcing Steel: ASTM A615, 60-ksi-yield grade billet-steel, deformed bars, uncoated finish.

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CONCRETE REINFORCEMENT

- B. Welded Steel Wire Fabric: ANSI/ASTM A185 plain type; in coiled rolls; uncoated finish.
- C. Stirrup Steel: ANSI/ASTM A82.

2.02 ACCESSORY MATERIALS

- A. Tie Wire: Minimum 16 gauge annealed type.
- B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during installation and placement of concrete, including load bearing pad on bottom to prevent vapor barrier puncture.
- C. Chairs, Bolsters, Bar Supports, Spacers Adjacent to Architectural Concrete Surfaces: Plastic coated or stainless steel type; sized and shaped as required.

2.03 FABRICATION

- A. Fabricate in accordance with ACI 315, providing concrete cover specified in Section 03300.
- B. Locate reinforcing splices not indicated on Drawings at points of minimum stress. Indicate location of splices on shop drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Before placing concrete, clean reinforcement of foreign particles or coatings.
- B. Place, support, and secure reinforcement against displacement. Do not deviate from alignment or measurement.
- C. Do not dispose or damage vapor barrier required by Section 03300.

3.02 MEASUREMENT AND PAYMENT

- A. No separate measurement and payment is provided for work covered by this Section. All costs in connection with concrete reinforcement work shall be included in the bid price of any item in the Item Response Form for which concrete reinforcement is required.

END OF SECTION 03200

**SECTION 03300
CAST-IN-PLACE CONCRETE**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All applicable provisions of the Bidding and Contract Requirements, and General Conditions, shall govern the WORK under this section.

1.02 WORK INCLUDED

- A. Provide all labor, materials, necessary equipment and services to complete the Cast-In-Place Concrete Work, as indicated on the drawings, as specified herein or both except as for items specifically indicated as "NIC ITEMS".
- B. Including but not necessarily limited to the following:
 - 1. Cast-In-Place concrete walls, footings, foundation walls, paving, walks, slabs, formwork, reinforcing and all other components as indicated on the Drawings.

1.03 RELATED WORK

- A. Section 03010 - Concrete.
- B. Section 03100 - Concrete Form work.
- C. Section 03200 - Concrete Reinforcement.
- D. Section 03370 - Concrete Curing.

1.04 QUALITY ASSURANCE

- A. Applicator Qualifications: Minimum of 5 comparable concrete projects.
- B. Requirements of Regulatory Agencies: Perform work in accordance with local building codes.
- C. Allowable Tolerances: Flat work true to plane 1/8 inch in 10 feet.
- D. Slump tests as per ASTM C-143, and test cylinders as per ASTM C-39.

1.05 TESTS

- A. Submit proposed mix design of each class of concrete to appointed firm for review prior to commencement of work.
- B. Testing firm will take cylinders and perform slump and air entrainment tests in accordance with

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CAST-IN-PLACE CONCRETE

ACI 301.

- C. Tests of cement and aggregates will be performed to ensure conformance with requirements stated herein.
- D. Three (3) concrete test cylinders will be taken for every 75 cubic yards. or less of each class of concrete placed each day.
- E. One (1) slump test will be taken for each set of test cylinders taken.
- F. All testing shall be at the expense of the CONTRACTOR.

1.06 SUBMITTALS

- A. Provide product data for specified products.
- B. Test Reports: Reports of concrete compression, yield, air content, and slump tests.
- C. Certificates:
 - 1. Manufacturer's certification that materials meet specification requirements.
 - 2. Material content per cubic yard of each class of concrete furnished.
 - a. Dry weights of cement.
 - b. Saturated surface-dried weights of fine and coarse aggregate.
 - c. Quantities, type and name of admixtures.
 - d. Weight of water.
 - 3. Ready-mix delivery tickets, ASTM C-94.
- D. Shop Drawings:
 - 1. Show sizes and dimensions for fabrication and placing of reinforcing steel and bar supports.
 - 2. Indicate bar schedules, stirrup spacing, and diagrams of bend bars.
 - 3. Detail items of form systems affecting appearance of architectural concrete surfaces such as joints, tie holes, liners, patterns and textures. Show items in relation to entire form system.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver reinforcement to project site in bundles marked with metal tags indicating bar size

and length.

- B. Handle and store materials to prevent contamination.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Allowable concrete temperatures:
 - Hot Weather: Maximum 90° F as per ASTM C-94.
- B. Do not place concrete during rain, unless protection is provided.

PART 2 - PRODUCTS

2.01 MATERIALS & MANUFACTURERS

- A. Concrete Ready-Mix concrete ASTM C-94.
 - 1. Cement:
 - a. ASTM C 150, Type II
 - 2. Admixtures:
 - a. Air entraining: ASTM C-260
 - b. Chemical: Type (as required) ASTM C-494.
 - c. Fly ash and pozzolans: ASTM C-618
 - d. Vapor Barrier: 6-mil thick film of type recommended for below grade application.
 - 3. Coarse aggregate: Not less than 50% clean, hard, crushed stone conforming to requirements of Table 2, size number 467 ASTM C-33.
 - 4. Slump 4 inch maximum; plus tolerance 0, minus tolerance 1 inch.
 - 5. Air content: 5% + 1%.
 - 6. Mix proportioning:
 - a. In accordance with ASTM C-94.
 - b. 28 day compressive strength of moist cured laboratory samples 3,000 PSI.
 - c. Use set retarding admixtures during hot weather only when approved by ENGINEER.
 - d. Minimum cement contents 5 sacks/cubic yards.
 - e. Add air-entraining agent to concrete work exposed to exterior.
 - 7. Curing Material: Liquid membrane, ASTM C-309, Type 1.

SECTION 03300
CAST-IN-PLACE CONCRETE

- 8. Mixes:
 - a. ASTM C-94.
 - b. Mix concrete only in quantities for immediate use.
 - c. Do not retemper or use set concrete.
- B. Bars.
 - 1. Deformed billet steel: ASTM A 615, Grade 60.
- C. Wire Fabric:
 - 1. Welded Wire Fabric Steel: ASTM A 185
- D. Tie Wire: FS QQ-W-461-G, annealed steel, black 16 ga. minimum.
- E. Bar supports: Conform to "Bar Support Specification," CRSI Manual of Standard Practice.
- F. Forms:
 - 1. Conform with ACI 347, Chapter 3, Material and Form Work.
 - 2. Lumber:
 - a. Softwood framing lumber: Kiln dried, PS-20.
 - b. Boards less than 1 1/2 inch thick and 2 inch wide, used for basic forms and form liners: Kiln dried.
 - c. Grade marked by grading rules agency approved by American Lumber Standards Committee.
 - d. Light framing or studs for board or plywood forms, 2 inch to 4 inch width and thickness Construction Standard grade.
 - e. Boards for basic forms Construction Standard grade.
 - f. Board surface: Smooth.
 - 3. Plywood:
 - a. Exterior type softwood plywood, PS 1-66.
 - b. Each panel stamped or branded indicating veneer grades, species, type and

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identification.

- c. Wood faced plywood for architectural concrete surfaces.

- (1). Panel veneer grades: B - C.

- (2). Mill-oiled sides and mill-sealed edges of panels.

- 4. Ties:

- a. Materials: Stainless Steel.
 - b. Type: Snap Ties.
 - c. Depth of breakback: 1 inch.
 - d. Maximum diameter 1/4 inch.

- 5. Form coatings:

- a. Non-staining type.
 - b. Agent: Pine oil derivative.

- G. Water: Clean and potable.

PART 3 - EXECUTION

3.01 FORMWORK

- A. Conform to ACI 347, Chapter 2, Construction; and Article 4.2, architectural Concrete.
- B. Framing, Bracing and Plywood Form Liners: APA Form V 345-72.
- C. Provide temporary openings in framework for concrete placement.
- D. Fill voids of plywood joints with sealant and tool smooth.
- E. CONTRACTOR is responsible for the design, construction, removal and complete safety of formwork and shoring.
- F. Form construction shall be provided to shape, lines dimensions of members shown; substantial, tight enough to prevent leakage, and properly braced or tied to maintain position and size, form sides and bottoms of members unless specifically excepted.

3.02 REINFORCING

- A. Fabrication shall be provided to latest ACI Manual of Practice ACI-315.

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- B. Reinforcing free from excessive rust, scale or coating reducing bond. Bars bent cold in fabrication plant. Chairs, support bars, and other accessories furnished to carry and provide coverage as required by ACI Manual.
- C. Unless otherwise indicated the minimum coverage is 3 inch for footings (slabs to have 3/4 inch minimum). Call any "crowding" of reinforcement to ENGINEERs attention during placing.
- D. Splices shall be Mesh 6 inch lap, bars 30 X diameter minimum.
- E. Conduit or pipes embedded in concrete must have specific approval and be located to avoid cracking or reduction in strength. Provide extra strong pipe sleeves where pipes are allowed to pierce concrete beams or walls.
- F. Placement:
 - 1. Bar supports: CRSI 65.
 - 2. Reinforcing bars: CRSI 63.
- G. Steel Adjustment:
 - 1. Move within allowable tolerances to avoid interference with other reinforcing steel, conduits, expansion joints, or embedded items.
 - 2. Do not move bars beyond allowable tolerances without concurrence of ENGINEER.
 - 3. Do not heat, bend or cut bars without concurrence of ENGINEER.
- H. Splices:
 - 1. Lap splices: Tie securely with wire to prevent displacement of splices during placement of concrete.
 - 2. Splice devices: Install in accordance with manufacturer's written instructions.

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3. Welding: Perform in accordance with AWS Standards.
4. Do not splice bars except at locations shown on drawings without concurrence of ENGINEER.

I. Wire Fabric:

1. Install in longest practicable length.
2. Lap adjoining pieces one full mesh minimum, and lay splices with 16-gauge wire.
3. Offset end laps in adjacent widths to prevent continuous laps.

J. Cleaning: Remove dirt, grease, oil, loose mill scale, excessive rust, and foreign matter that will reduce bond with concrete.

K. Protection During Concreting: Keep reinforcing steel in proper position during concrete placement.

3.03 JOINTS

A. Construction pours shall be continuous pours except where joints are indicated. No additional joints except by special acceptance in writing by the ENGINEER. Allow no construction or interrupted pour joints in any exposed surface, unless treated as part of design.

1. Where indicated and as detailed, provide saw cut type construction joints of sizes as called for on the drawings.

B. Expansion joints shall be constructed as shown on drawings.

1. Expansion material shall be ½ inch continuous full depth strips set ½ inch below finish surface with ½ inch x ½ inch joint sealant filler above.

3.04 BUILT-IN ANCHORING DEVICES, FIXTURES, PIPE SLEEVES AND OTHER INSERTS

A. Build-in and coordinate as required and called for on the drawings all items to be constructed into concrete such as anchoring devices, fixtures, piping, sleeves and other inserts and items as required for a complete installation.

3.05 INSPECTION

A. Assure that excavation and formwork are completed, with smooth rubbed finish, and that

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excess water is removed.

- B. Check that reinforcement is secured in place.
- C. Verify that expansion joint material, anchors, and other embedded items are secured in position.
- D. Verify anchors, seats, plates, reinforcement, and other items to be cast into concrete are accurately placed, held securely, and will not cause hardship in placing concrete.

3.06 CONCRETE QUALITY

- A. Design of mix shall be a laboratory designed mix to satisfy the following requirements and shall be approved by the ENGINEER.
 - 1. Ready mixed concrete as per ASTM C-94 with 28 day strength 3,000 PSI minimum, for all standard grey concrete work.
 - 2. Proportion the concrete to work readily into forms and around reinforcement, without excessive manipulation, segregation or water gain. Approved additives may be used to achieve the above results.
 - 3. Slump shall be maximum 3 inch for footings, and for all other concrete shall be 3 inch to 5 inch.
 - 4. Submit for approval representative test results by independent laboratory to substantiate proposed mix design.

3.07 PREPARATION FOR POURS

- A. Notify the OWNER's Representative, ENGINEER and other inspectors at least 36 hours prior to inspection.
- B. Equipment forms, and reinforcing shall be clean and wet down, reinforcing firmly secured in place, runways set up and not resting on or displaying reinforcing.
- C. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent. Apply bonding agent in accordance with manufacturer's instruction.
- D. At locations where new concrete is dowelled to existing work, drill holes in existing concrete, insert steel dowels, and pack solid with non-shrink grout.

3.08 PLACING

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- A. Mixing and conveying shall be as per ASTM C-94 and as follows:
1. Maximum elapsed time from addition of water to placing in forms -60 minutes, (total mixing time).
 2. Concrete handled and placed by methods, which keep concrete plastic, prevent separation of materials, and do not displace reinforcement.
- B. Deposit as close as possible to final position to avoid segregation of materials. Restrict drop to 3 foot maximum (less for exposed concrete), using tremie if necessary.
1. Compact by mechanical vibration to thoroughly work around reinforcing and eliminate honeycomb.
- C. Place concrete in accordance with ACI 301.
- D. Hot Weather Placement: ACI 301.
- E. Cold Weather Placement: ACI 301.
- F. Ensure reinforcement, inserts, embedded parts and formed joints are not disturbed during concrete placement.
- G. Maintain concrete cover around reinforcing as follows:
- | <u>Item</u> | <u>Coverage</u> |
|--|-----------------|
| Beams | 1 1/2 inch |
| Supported Slabs | 3/4 inch |
| Column Ties | 1 1/2 inch |
| Walls (exposed to weather or backfill) | 2 inch |
| Footings and Concrete Formed Against Earth | 3 inch |
| Slabs on Fill | 2 inch |
- H. Place concrete continuously between predetermined construction and control joints. Do not break or interrupt successive pours such that cold joints occur.
- I. Saw cut control joints at an optimum time after finishing. Use 3/16 inch thick blade, cutting 1/3 depth of slab thickness.
- J. Separate exterior slabs on fill from vertical surfaces with joint filler. Extend joint filler from bottom of slab to within 1/2 inch of finished slab surface.
- K. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify

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ENGINEER upon discovery.

3.09 CONCRETE CURING

- A. Curing for standard grey work after finishing, cure concrete by keeping moist for one (1) week after placement. Floors and vertical surfaces may be sprayed with an approved curing compound to retard evaporation of water, if spraying is not objectionable because of future finishing requirements. Begin curing operations as soon as concrete has attained its initial set. Keep exposed concrete surface moist for at least one (1) week.
- B. Apply a liquid membrane-forming compound, conforming to ASTM C 309, color to match that of the color condition concrete. Apply on flat work immediately after the finishing operation pursuant to the manufacturers recommendations.

3.10 CONCRETE FINISHING

- A. Unexposed concrete work shall be patched and repaired immediately after removal of forms.
 - 1. Cut off metal ties a minimum of 1 inch back from surface of concrete.
 - 2. Moderate honeycomb cut out and prepared for patching. Severe honeycomb with exposed steel reinforcing is to be removed or "united" at the discretion of the ENGINEER.
 - 3. Wet areas for patching and pack carefully with rich mortar rubbed to match surface.
- B. Provide concrete surfaces to be left exposed, walls, columns, beams, with smooth rubbed finish.
- C. Provide Class B tolerances to floor slabs and toppings according to ACI 301.
- D. Pitch to drains 1/4 inch per foot.
- E. Exposed concrete work shall be patched and repaired as accepted by ENGINEER after consultation. Patching and rubbing will be kept to a minimum if possible, but when necessary will be done with great care to obtain maximum degree of matching in color and texture to adjacent finished concrete surfaces.
- F. Monolithic finish using care to obtain a level surface; floors out of level or with variation greater than 1/8 inch in 10 feet shall be corrected.
- G. All finishes shall be as called for on the drawings.

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3.11 SEPARATE FLOOR TOPPINGS

- A. Prior to placing, roughen concrete base course and remove foreign materials. Broom and vacuum clean.
- B. Place dividers, edge strips, reinforcing and other items to be cast in.
- C. Apply bonding agent on base course in accordance with manufacturer's instructions. Apply sand and cement slurry coat on base course immediately prior to placing toppings.
- D. Place concrete floor toppings to required lines and levels.

3.12 PATCHING

- A. Notify ENGINEER immediately upon removal of forms.
- B. Patch imperfections.

3.13 DEFECTIVE CONCRETE

- A. Modify or replace concrete not conforming to required levels and lines, details, and elevations.
- B. Repair or replace concrete not properly placed or of the specified type.

3.14 FIELD QUALITY CONCRETE

- A. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.15 PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. During curing period, protect concrete from damaging mechanical disturbances, water flow, loading, shocking, and vibration.

3.16 APPLICATION OF BOND COAT FOR CONCRETE LEVELING COAT FOR
PAVERS AND TEXTURED SURFACES

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- A. Provide installation as per manufacturer's standard printed specifications, instructions and recommendations.

3.17 MEASUREMENT AND PAYMENT

- A. No separate measurement and payment is provided for work covered by this Section. All cast in place concrete shall be included in the bid price of the relevant item in the Item Response Form.

END OF SECTION 03300

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All applicable provisions of the Bidding and Contract Requirements, and General Conditions, shall govern the WORK under this section.

1.02 WORK INCLUDED

- A. Maintenance of conditions for proper concrete curing.

1.03 RELATED WORK

- A. Section 03010 - Concrete
- B. Section 03300 - Cast-in-Place Concrete

1.04 QUALITY ASSURANCE

- A. Conform to requirements of ACI 301.

1.05 REFERENCES

- A. ACI 301 - Specifications for Structural Concrete for Buildings.
- B. ASTM C309 - Liquid Membrane-Forming Compounds for Curing Concrete.

1.06 SUBMITTALS

- A. Provide product data for specified products.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Maintain ambient temperature at 70 degrees F for three (3) days.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Water: Clean and not detrimental to concrete.
- B. Absorptive Mat: Burlap fabric of 9 ounce per square yard clean, roll goods.
- C. Curing Compound: As per ASTM C309.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify concrete surfaces are ready for curing.

3.02 CURING COMPOUND

- A. Apply curing compound in two (2) coats with second coat at right angles to first.
- B. Apply in accordance with manufacturer's instructions.

3.03 SPRAYING

- A. Spray water over slab areas; maintain wet for three (3) days.

3.04 ABSORPTIVE MAT

- A. Saturate burlap side of burlap fabric mat. Place over slab areas, burlap side down; lap edges and ends 12 inches. Maintain in place for seven (7) days.

3.05 CONCRETE CURING

- A. Curing for standard grey work after finishing, cure concrete by keeping moist for one (1) week after placement. Floors and vertical surfaces may be sprayed with an approved curing compound to retard evaporation of water, if spraying is not objectionable because of future finishing requirements. Begin curing operations as soon as concrete has attained its initial set. Keep exposed concrete surface moist for at least one (1) week.
- B. Apply a liquid membrane-forming compound, conforming with ASTM C 309, color to match that of the color condition concrete. Apply on flat work immediately after the finishing operation pursuant to the manufacturers recommendations.
- C. Cure concrete as scheduled or indicated.
- D. Remove absorptive mat after curing.

3.06 MEASUREMENT AND PAYMENT

- A. No separate measurement and payment is provided for work covered by this Section. All costs in connection with concrete curing shall be included in the bid price of any item in the Item Response Form for which concrete curing is required.

END OF SECTION 03370

PART 1 - GENERAL:

As a prerequisite to final inspection, all construction, testing, adjustments, balancing, start up and any required instruction periods will have been completed on all mechanical systems and equipment.

1.01 EQUIPMENT, MATERIALS AND PRODUCTS:

- A. All equipment, materials and products systems shall be installed complete and all tests as required in other sections of this specification as related to the equipment, materials and products systems shall be completed.
- B. All equipment, materials and products systems shall be tested for proper operation.
- C. Pipe inspection, testing and correction of defects shall be complete. Operating instructions and other data required for posting shall be in place.
- D. All inspections and resulting punchlist items must be completed in a satisfactory manner prior to project acceptance.

1.02 WARRANTY:

- A. The MANUFACTURER shall warrant the EQUIPMENT, MATERIALS and PRODUCTS specified in this section against defective materials and workmanship with the MANUFACTURER'S standard warranty for no less than one year from the date of Substantial Completion.
- B. The CONTRACTOR shall warrant the WORK against defects for one year from the date of Substantial Completion.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 15001

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required for a complete electrical system for Large User Meter Replacements, in Hollywood, Florida, hereinafter specified and shown on the Drawings. The requirements specified herein are in addition to those specified on the Drawing.
- B. The work, apparatus and materials which shall be furnished under these Specifications and accompanying Drawings shall include all items listed hereinafter and/or shown on the Drawings. Certain equipment will be furnished as specified in other sections of these Specifications which will require wiring thereto and/or complete installation as indicated. All materials necessary for the complete installation shall be furnished and installed by the Contractor to provide complete power, lighting, communication systems, instrumentation, wiring and control systems as indicated on the Drawings and/or as specified herein.
- C. The Contractor shall furnish and install the necessary cables, protective devices, conductors, exterior electrical system, etc., to serve motor loads, lighting loads and miscellaneous electrical loads as indicated on the Drawings and/or as specified hereinafter.
- D. The work shall include complete testing of all equipment and wiring at the completion of the work and making any minor connection changes or adjustments necessary for the proper functioning of the system and equipment. All workmanship shall be of the highest quality; substandard work will be rejected.
- E. All work outlined in Division 16 specifications shall be the responsibility of the Division 16 Contractor. It is the intent of the Contract Documents that the Electrical Contractor will have the ultimate responsibility for the installation of all items furnished in Division 16.
- F. Mount and wire instruments and equipment furnished under other Divisions of these Specifications.
- G. Make all field connections to process instrument panels and other control panels furnished under other Divisions of these Specifications.
- H. For process instrumentation, furnish and install all conduit, wire and interconnections between primary elements, transmitters, local indicators and receivers.
- I. Furnish necessary devices and make connections to provide power equipment.
- J. It is highly recommended that each bidder or authorized representatives, before

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preparing their proposal, visit all areas of the site in which work under this division is to be performed and inspect carefully the present conditions. Bidder shall make themselves familiar with all the factors governing the proposed work.

- K. All power interruptions shall be at the Owner's convenience. Each interruption shall have prior approval.
- L. It is the intent of these Specifications that the electrical system shall be suitable in every way for the service required. All material and all work which may be reasonably implied as being incidental to the work of this Section shall be furnished at no extra cost.

1.02 **CODES, INSPECTION, & FEES**

- A. All material and installation shall be in accordance with the latest edition of the National Electrical Code and all applicable national, local and state codes.
- B. Pay all fees required for permits and inspections including any charges associated with the service modifications.

1.03 **TEST**

- A. Test all systems and repair or replace all defective work. Make all necessary adjustments to the systems and instruct the Owner's personnel in the proper operation of the systems.
- B. The following minimum tests and checks shall be made prior to the energizing of electrical equipment. Test shall be by an independent NETA certified testing firm, and a certified test report shall be submitted stating that the equipment meets and operates in accordance with the Manufacturer's and job specifications, and that equipment and installation conforms to all applicable Standards and Specifications:
 - 1. Testing and setting of protective relays for calibration and proper operation.

1.04 **RELATED WORK**

- A. Section 16110 – Raceways and Fittings
- B. Section 16120 – Wires and Cables
- C. Section 16450 – Grounding System

1.05 **SLEEVES AND FORMS FOR OPENING**

- A. Provide and place all sleeves for conduits penetrating floors, walls, partitions, etc.

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ELECTRICAL GENERAL PROVISIONS

Locate all necessary slots for electrical work and form before concrete is poured.

1.06 CUTTING AND PATCHING

- A. All cutting and patching shall be done in a thoroughly efficient manner.

1.07 INTERPRETATION OF DRAWINGS

- A. The Drawings are not intended to show exact locations of conduit runs.
- B. Unless otherwise approved by the Engineer conduit shown exposed shall be installed exposed; conduit shown concealed shall be installed concealed.
- C. Where circuits are shown as "home-runs" all necessary fittings and boxes shall be provided for a complete raceway installation.
- D. The Contractor shall harmonize the work of the different trades so that interferences between conduits, piping, equipment, architectural and structural work will be avoided. All necessary offsets shall be furnished so as to take up a minimum space and all such offsets, fittings, etc., required to accomplish this shall be furnished and installed by the Contractor without additional expense to the Owner. In case interference develops, the Owner's authorized representative is to decide which equipment, piping, etc., must be relocated, regardless which was installed first.
- E. Surface mounted panel boxes, junction boxes, conduit, etc., shall be supported by spacers to provide a clearance between wall and equipment.
- F. All connections to equipment shall be made as shown, specified, and directed and in accordance with the Manufacturer's approved shop drawings, regardless of the number of conductors shown on the Drawings.

1.08 COMPONENT INTERCONNECTIONS

- A. Component equipment furnished under this Specification will not be furnished as integrated systems. Contractor shall field install and wire completely all components.
- B. Contractor shall analyze all systems components and their shop drawings, identify all terminals and prepare drawings and wiring tables necessary for component interconnection. Contractor shall provide crimp on wire numbers on both ends of all control wiring installed between all panels furnished under this contract. These numbers shall directly relate to the interconnect wiring drawing furnished by the Contractor and be reflected in the record drawings submitted.

1.09 SHOP DRAWINGS

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- A. As specified under other sections shop drawings shall be submitted for approval of all materials, equipment, apparatus, and other items as required by the Engineer.
- B. Shop drawings shall be submitted for the following applicable equipment:
 - 1. Wire and Cable
 - 2. Grounding System
 - 3. Electromagnetic Meters
- C. The Manufacturer name and product designation and catalog data sheet shall be submitted for the following material:
 - 1. Conduit
 - 2. Grounding System Material
- D. Prior to submittal by the Contractor, all shop drawings shall be checked for accuracy and contract requirements. Shop drawings shall bear the date checked and shall be accompanied by a statement that the shop drawings have been examined for conformity to Specifications and Drawings. This statement shall also list all discrepancies with the Specifications and Drawings. Shop drawings not so checked and noted shall be returned.
- E. The Engineer's check shall be only for conformance with the design concept of the project and compliance with the Specifications and Drawings. The responsibility of, or the necessity of, furnishing materials and skills required by the Specifications and Drawings which may not be indicated on the shop drawings is included under the work of this Section.
- F. The responsibility for all dimensions to be confirmed and correlated at the job site and for coordination of this work with the work of all other trades is also included under the work of this Section.
- G. No material shall be ordered or shop work started until the Engineer's approval of shop drawings has been given.

1.10 **MATERIALS**

- A. The materials used in all systems shall be new, unused and as hereinafter specified. All materials where not specified shall be of the very best of their respective kinds. Samples of materials or Manufacturer's specifications shall be submitted for approval as required by the Engineer.
- B. Materials and equipment used shall be Underwriters Laboratories, Inc. listed.

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- C. Electrical equipment shall at all times during construction be adequately protected against mechanical injury or damage by water. Electrical equipment shall not be stored out-of-doors. Electrical equipment shall be stored in dry permanent shelters. If any apparatus has been damaged, such damage shall be repaired by the Contractor at their own cost and expense. If any apparatus has been subject to possible injury by water, it shall be thoroughly dried out and put through such special tests as directed by the Engineer, at the expense of the Contractor, or shall be replaced by the Contractor at their own expense.

1.11 DEMOLITION

- A. Remove all electrical work associated with equipment shown to be removed (TBR) except those portions indicated to remain or be reused. Remove all unused exposed conduit and wiring back to point of concealment. Remove unused wiring in concealed conduits back to source (or nearest point of usage). Electrical work to be removed corresponds to the associated mechanical equipment to be removed.
- B. Where electrical systems pass through the demolition areas to serve other portions of the premises, they shall remain or shall be suitably relocated and the system restored to normal operation. Coordinate outages in systems with the Owner. Where duration of proposed outage cannot be allowed by the Owner, provide temporary connections as required to maintain service.
- C. All removals and relocations of existing installations cannot be completely detailed on the Drawings.
- D. Continuous service is required on all circuits and outlets affected by these changes, except where the Owner will permit outage for a specific time. Obtain Owner's written consent before removing any circuit from continuous service.
- E. Where required to disconnect and/or remove any part of an existing circuit, reconnect that circuit to reestablish service in the remaining portion.
- F. Remove exposed conduits, wireways, outlet boxes, pull boxes and hangers made obsolete by the alternations, unless specifically designated to remain. Exposed conduits shall be removed back to point of concealment, where they shall be cut and threaded for a cap. A threaded cap shall then be installed. Conduits may be removed back to first coupling if within 3-inches of point of concealment. Cut back in traffic areas to the floor level and patch.
- G. Repair all walls to "Like new" condition and paint to match existing wall color.

1.12 DISPOSITION OF REMOVED MATERIALS AND EQUIPMENT

- A. In general, it is intended that all materials and equipment indicated to be removed and

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disposed of by the CONTRACTOR shall, upon removal, become the CONTRACTOR's property and shall be disposed of off the site by the CONTRACTOR, unless otherwise directed by the Owner.

- B. Reuse of wire will not be permitted. An exception is the reuse or relocation when wire is part of an existing lighting branch circuit and reuse or relocation is specifically designated and can be accomplished without removing and re-pulling the wire.
- C. All reusable and salvageable disconnect switches, starters, control devices, control panels and instruments, receptacles, light fixtures, etc. shall be sorted and returned to the Owner.
- D. All electrical equipment to be salvaged shall be removed and shall be moved by the CONTRACTOR to a location on the site for storage as directed by the Owner.

1.13 OPERATION & MAINTENANCE DATA

- A. Submit complete operations and maintenance data for all equipment furnished under this Division. The manuals shall be prepared specifically for this installation and shall include all required cuts, Drawings, equipment lists, descriptions, complete part lists, etc. that are required to instruct operating and maintenance personnel unfamiliar with such equipment.

1.14 WARRANTY

- A. Provide a warranty for all the electrical equipment in accordance with the requirements of other sections, but in no case less than 1 year from date of substantial completion.

PART 2 -PRODUCTS

2.01 LIGHTNING AND SURGE PROTECTION

- A. Surge suppressors and arrestors meeting the requirements of ANSI Standard C-62.41 (latest revision) shall be provided as further detailed below.
- B. Loop Powered Instruments. Lightning and surge protection shall be provided on the 4-20 mA DC signal line. The protectors shall meet the following criteria:
 - 1. Encapsulated in Stainless Steel Pipe nipples for in-line conduit mounting.
 - 2. Response time of less than one nanosecond.
 - 3. Capable of withstanding up to 400 occurrences of 500 Amps at 10 x 1

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millisecond.

4. Series resistance of 5 ohms per line.
5. Protection of both lines plus shield.
6. Manufacturer/model: EDCO SS65 or approved equal.

PART 3 -EXECUTION (Not Used)

END OF SECTION 16050

PART 1 -GENERAL

1.01 SCOPE OF WORK

- A. Furnish and install complete raceway systems as shown on the Drawings and as specified herein.

1.02 APPLICATIONS

- A. Except where otherwise shown on the Drawings, or hereinafter specified. The following describes the conduit requirements of the project:
 - 1. All exposed raceways shall be in aluminum conduit unless otherwise noted in 2 through 4 below.
 - 2. Underground power conductors shall be installed in Schedule 80 PVC conduits.
 - 3. All other conduits not containing pump or float cables shall be installed in Schedule 80 PVC conduits.
 - 4. All instrumentation circuits (4-20 mA signal wire) shall be installed in PVC coated GRS conduit.
- B. Where Schedule 80 PVC is used, all below grade elbows and risers to above grade shall be PVC coated GRS. All elbows above grade shall be suitably grounded. Conduit spaces shall be provided for underground conduit installation.
- C. All conduit of a given type shall be the product of one manufacturer.
- D. All switch, outlet and control station boxes and fittings shall be cast aluminum FS boxes with aluminum covers.
- E. Concealed switch, outlet and control station boxes in NEMA 1 areas shall be aluminum.
- F. Terminal boxes, junction boxes, pull boxes, etc.; installed outdoors shall be NEMA 4X stainless steel. All boxes installed indoors (except in corrosive areas) may be aluminum. Boxes in corrosive areas shall be PVC.
- G. Combination expansion deflection fittings shall be used where exposed or embedded conduits cross structure expansion joints.

PART 2 -PRODUCTS

**SECTION 16110
RACEWAYS AND FITTINGS**

2.01 MATERIALS

A. Rigid Metal Conduit

1. Rigid metal conduit shall be for use under the provisions of NEC Article 346.
2. Rigid aluminum conduit shall be 6063 alloy and shall be as manufactured by New Jersey Aluminum Corp., AFC Co., VAW of America, Inc., or approved equal.
3. PVC coated GRS conduit shall have a 1/50-in thick, polyvinyl chloride coating permanently bonded to the aluminum conduit and an internal phenolic coating, and shall be plasti-bond 2 inches as manufactured by Robroy Industries, Triangle PWC Inc., Perma-Cote Industries, or approved equal.

B. Rigid Nonmetallic Conduit

1. Rigid nonmetallic conduit shall be for use under the provisions of NEC Article 347.
2. PVC conduit shall be rigid polyvinyl chloride schedule 80 as manufactured by Carlon, An Indian Head Co., Kraloy Products Co., Inc., Highland Plastics Inc., or approved equal.

C. Liquidtight Flexible Conduit, Couplings and Fittings

1. Liquidtight flexible conduit shall be for use under the provisions of NEC Article 351A.
2. Liquidtight flexible conduit shall be Carflex by Carlon, or approved equal.
3. Fittings used with liquidtight flexible conduit shall be nylon.
4. Fittings installed on tanks, filter area, chemical rooms and other outdoor process areas shall be aluminum.

D. Flexible Couplings, Non-metallic

1. Flexible non-metallic couplings shall be as manufactured by the Crouse-Hinds Co., Appleton Electric Co., Killark Electric Manufacturing Co., or approved equal.

E. Boxes and Fittings:

1. PVC, aluminum and stainless steel switch and outlet boxes shall be manufactured by Carlon, Appleton, or approved equal.

**SECTION 16110
RACEWAYS AND FITTINGS**

2. Nema 1 terminal boxes, junction boxes, pull boxes etc., may be fiberglass (FRP) or stainless steel. Boxes shall be as manufactured by Hoffman Engineering Co., Stahlin, or approved equal. NEMA 4 boxes located outdoors shall be 316 stainless steel.
 3. Cast aluminum boxes and fittings shall be copper free aluminum with cast aluminum covers and corrosion-proof screws as manufactured by the Killark Electric Co., Crouse Hinds Co., Appleton Electric Co., or approved equal.
 4. Conduit hubs shall be as manufactured by Meyers Electric Products, Inc., Racor Div., Appleton Electric Co., or approved equal. Conduit hubs shall be provided for all outdoor conduit terminations.
 5. Conduit wall seals shall be Type WSK as manufactured by the O.Z. Electrical Mfg. Co., or approved equal.
 6. Combination expansion deflection fittings shall be Type XD as manufactured by the Crouse Hinds Co., or approved equal.
 7. Conduit wall seals for new concrete walls below grade shall be O.Z./Gedney Co., Type WSK, Spring City Electrical Manufacturing Co., Type WDP, or approved equal.
 8. Conduit wall seals for cored holes shall be Type CSML as manufactured by the O.Z./Gedney Co., or approved equal.
 9. Conduit wall and floor seals for sleeved openings shall be Type CSML as manufactured by the O.Z./Gedney Co., or approved equal.
 10. Conduit sealing bushings shall be O.Z./Gedney Type CSB or approved equal.
- F. Conduit Mounting Equipment:
1. Stainless steel channel and stainless steel hardware shall be used in all areas indoors or outdoors unless otherwise noted.

PART 3 -EXECUTION

3.01 INSTALLATION

- A. No conduit smaller than 3/4 inch electrical trade size shall be used, nor shall any have more than four 90 degree bends in any one run. Pull boxes shall be provided as required or directed. Minimum size in floor slabs shall be 3/4 inch.
- B. No wire shall be pulled until the conduit system is complete in all details; in the case

**SECTION 16110
RACEWAYS AND FITTINGS**

of concealed work, until all rough plastering or masonry has been completed; in the case of exposed work, until the conduit system has been completed in every detail.

- C. The ends of all conduits shall be tightly plugged to exclude dust and moisture while the buildings are under construction.
- D. Conduit supports shall be spaced at intervals as required to obtain rigid construction, but in no case less as required by the NEC.
- E. Single conduits shall be supported by means of one hole pipe clamps in combination with one screw back plates, to raise conduits from the surface. Multiple runs of conduits shall be supported on trapeze type hangers with steel horizontal members and threaded hanger rods. The rods shall be not less than 3/8 inch diameter. Material type shall be as specified in Section 2.
- F. Conduit hangers shall be attached to structural steel by means of beam or channel clamps. Where attached to concrete surfaces, concrete inserts of the spot type shall be provided.
- G. All conduits on exposed work shall be run at right angles to and parallel with the surrounding walls and shall conform to the form of the ceiling. No diagonal runs will be allowed. Bends in parallel conduit runs shall be concentric. All conduit shall be run perfectly straight and true. Conduits not installed in this fashion shall be replaced entirely at the Contractor's expense with no cost to the Owner.
- H. No unbroken run shall exceed 300 feet in length. This length shall be reduced by 75 feet for each 90 degree elbow.
- I. Conduit terminating in pressed steel boxes shall have double locknuts and insulated bushings.
- J. Conduit terminating in gasketed enclosures shall be terminated with conduit hubs.
- K. Conduit wall seals shall be used for all conduits penetrating walls below grade or other locations shown on the Drawings.
- L. Liquidtight flexible metal conduit shall be used for all motor terminations and other equipment where vibration is present.
- M. Flexible couplings shall be used in hazardous locations for all motor terminations and other equipment where vibration is present.
- N. Conduit stub outs for future construction shall be provided with threaded PVC end caps at each end.
- O. Metallic conduit entering maintenance access structures and below grade pull boxes

**SECTION 16110
RACEWAYS AND FITTINGS**

shall be terminated with grounding type bushings and connected to a 5/8 inch x 20 inch copperweld rod with a #6 bare copper wire.

- P. Underground 120 volt circuits (Schedule 80 PVC) shall be installed directly to the respective motor control centers, lighting panels, etc. Stainless steel pull boxes shall be wall mounted on structures to eliminate excessive bends. With prior approval, below grade pull boxes, equal to Brooks #2424 (minimum), with hot dip galvanized covers and frames may be used. Splices shall not be made in above or below grade pull boxes without prior approval.
- Q. A 4-inch (unless otherwise noted) concrete conduit housekeeping pad shall be required for all exposed conduit stub-ups. This applies to ALL exposed conduits installed indoors or outdoors.

END OF SECTION 16110

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Furnish, install and test all wire, cable, and appurtenances as shown on the Drawings and as hereinafter specified.

1.02 SUBMITTALS

- A. Samples of proposed wire and cable shall be submitted to the Engineer for approval. Each sample shall have the size, type of insulation and voltage stenciled on the jacket.
- B. Installed, unapproved wire shall be removed and replaced at no additional cost to the Owner.

1.03 APPLICATIONS

- A. Wire for lighting and receptacle circuits above grade shall be type THHN/THWN-2.
- B. Wire for all power circuits and below grade lighting and receptacle circuits shall be type XHHW- 2, stranded.
- C. Single conductor wire for control, indication and metering shall be type MTW No. 14 AWG, 19 strand or type XHHW No. 14 AWG stranded.
- D. Multi conductor control cable shall be No. 14 AWG, 19 strand.
- E. Wire for process instrumentation or shielded control cable shall be No. 16 AWG, shielded and stranded.

1.04 MINIMUM SIZES

- A. Except for control and signal leads, no conductor smaller than No. 12 AWG shall be used.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. All wires and cables shall be of annealed, 98 percent conductivity, soft drawn stranded copper conductors.

2.02 INSTRUMENTATION AND CONTROL CABLE

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WIRES AND CABLES

- A. Process instrumentation wire shall be twisted pair, 600V, cross linked polyethylene insulated, aluminum tape shielded, polyvinyl chloride jacketed, type "XLP" as manufactured by the American Insulated Wire Co., Eaton Corp. "Polyset," or approved equal. Multi-conductor cables shall be supplied with individually shielded twisted pairs.
- B. Multi-conductor control cable shall be stranded, 600V, cross linked polyethylene insulated with PVC jacket, type "XLP" as manufactured by the American Insulated Wire Co., Eaton Corp. "Polyset," or approved equal.

2.03 TERMINATIONS AND SPLICES

- A. Power Conductors: Terminations shall be die type or set screw type pressure connectors as specified. Splices (where allowed) shall be die type compression connector and waterproof with heat shrink boot or epoxy filling.
- B. Control Conductors: Termination on saddle-type terminals shall be wired directly with a maximum of two conductors per termination. Termination on screw type terminals shall be made with a maximum of two spade connectors. Splices (where allowed) shall be made with insulated compression type connectors. Heat shrink boots shall be utilized for all outdoor splices.
- C. Instrumentation Signal Conductors (including graphic panel, alarm, low and high level signals): Terminations permitted shall be typical of control conductors. Splices are allowed at instrumentation terminal boxes only.
- D. Except where otherwise approved by the Engineer no splices will be allowed in maintenance access structures, hand-holes or other below grade located boxes.
- E. Splices shall not be made in push button control stations, control devices (i.e., pressure switches, flow switches, etc.), conduit bodies, etc.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. All conductors shall be carefully handled to avoid kinks or damage to insulation.
- B. Lubrications shall be used to facilitate wire pulling. Lubricants shall be U.L. listed for use with the insulation specified.
- C. Shielded instrumentation wire shall be installed from terminal to terminal with no splicing at any intermediate point.
- D. Shielded instrumentation wire shall be installed in rigid steel conduit and pull boxes that

SECTION 16120
WIRES AND CABLES

contain only shielded instrumentation wire. Instrumentation cables shall be separated from control cables in maintenance access structures.

- E. Shielding on instrumentation wire shall be grounded at one end only, as directed by supplier of the instrumentation equipment.
- F. Wire and cable connections to terminals and taps shall be made with compression connectors. Connections of insulated conductors shall be insulated and covered. All connections shall be made using materials and installation methods in accordance with instructions and recommendations of the manufacturer of the particular item of wire and cable. The conductivity of all completed connections shall be not less than that of the uncut conductor. The insulation resistance of all completed connections of insulated conductors shall be not less than that of the uncut conductor.
- G. All wire and cable shall be continuous and without splices between points of connection to equipment terminals, except a splice will be permitted by the Engineer if the length required between the points of connection exceeds the greatest standard shipping length available from the manufacturer specified or approved by the Engineer as the manufacturer of the particular item of wire and cable.
- H. Steel fish tapes and/or steel pulling cables shall not be used in PVC conduit runs.
- I. All control and instrumentation circuits and wiring shall be clearly and permanently numbered and labeled at each end so as to identify the location of the opposite end and the function of the circuit. Individual wires in a multi-wire circuit shall be identified with wire numbers. Labeling shall be in place prior to turnover of any equipment, system or sub-system to Owner.

3.02 TESTS

- A. All service conductors shall be tested as in paragraph A above. These tests shall be witnessed by the Engineer. A written report shall be submitted to the Engineer for review.

END OF SECTION 16120

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Furnish and install a complete grounding system in strict accordance with Article 250 of the National Electrical Code and as hereinafter specified and shown on the Drawings.

1.02 RELATED WORK

- A. Wire shall be as specified under Section 16120.
- B. Conduit shall be as specified under Section 16110.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Ground rods: Ground rods shall be copperclad steel 5/8 inch x 20 foot. Ground rods shall be Copperweld or be an approved equal product.

PART 3 - EXECUTION

3.01 GENERAL

- A. The service entrance equipment ground bus shall be grounded to the ground grid as shown on the Drawings. The protecting conduits shall be bonded to the grounding conductor at both ends. The Contractor shall not allow the water pipe connections to be painted. If the connections are painted, they shall be disassembled and remade with new fittings.
- B. The grounding wire shall, unless otherwise indicated on the drawings, be sized in accordance with Table 250 122 of the National Electrical Code, except that a minimum No. 12 AWG shall be used.
- C. Grounding electrodes shall be driven as required. Where rock is encountered, grounding plates may be used in lieu of grounding rods.
- D. All equipment enclosures, motor and transformer frames, conduits systems, cable armor, exposed structural steel and similar items shall be grounded.
- E. Exposed connections shall be made by means of approved grounding clamps. Exposed connections between different metals shall be sealed with No Oxide Paint Grade A or approved equal. All buried connections shall be made by welding process equal to Cadweld.

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GROUNDING SYSTEM

- F. For reasons of mechanical strength, grounding conductors extending from the plant grounding grid to the ground buses of control centers and unit substations shall be No. 4 AWG.
- G. The grounding grid conductors shall be embedded in backfill material around the structures.
- H. All underground conductors shall be laid slack and where exposed to mechanical injury shall be protected by pipes or other substantial guards. If guards are iron pipe or other magnetic material, conductors shall be electrically connected to both ends of the guard.
- I. The Contractor shall exercise care to ensure good ground continuity, in particular between the conduit system and equipment frames and enclosures. Where necessary, jumper wires shall be installed.

3.02 TESTS

- A. The Contractor shall test the ground resistance of the system. All test equipment shall be provided by the Contractor and approved by the Engineer. Dry season resistance of the system shall not exceed 5 ohms. If such resistance cannot be obtained with the system as shown, the Contractor shall provide additional grounding as directed by the Engineer, without additional payment. The Contractor shall submit all grounding system test results to the Engineer for review.

END OF SECTION 16450

LARGE USER METER REPLACEMENT

CITY OF HOLLYWOOD, FLORIDA FOR BIDDING PURPOSES ONLY

DATE OF ISSUE: 05/05/2025



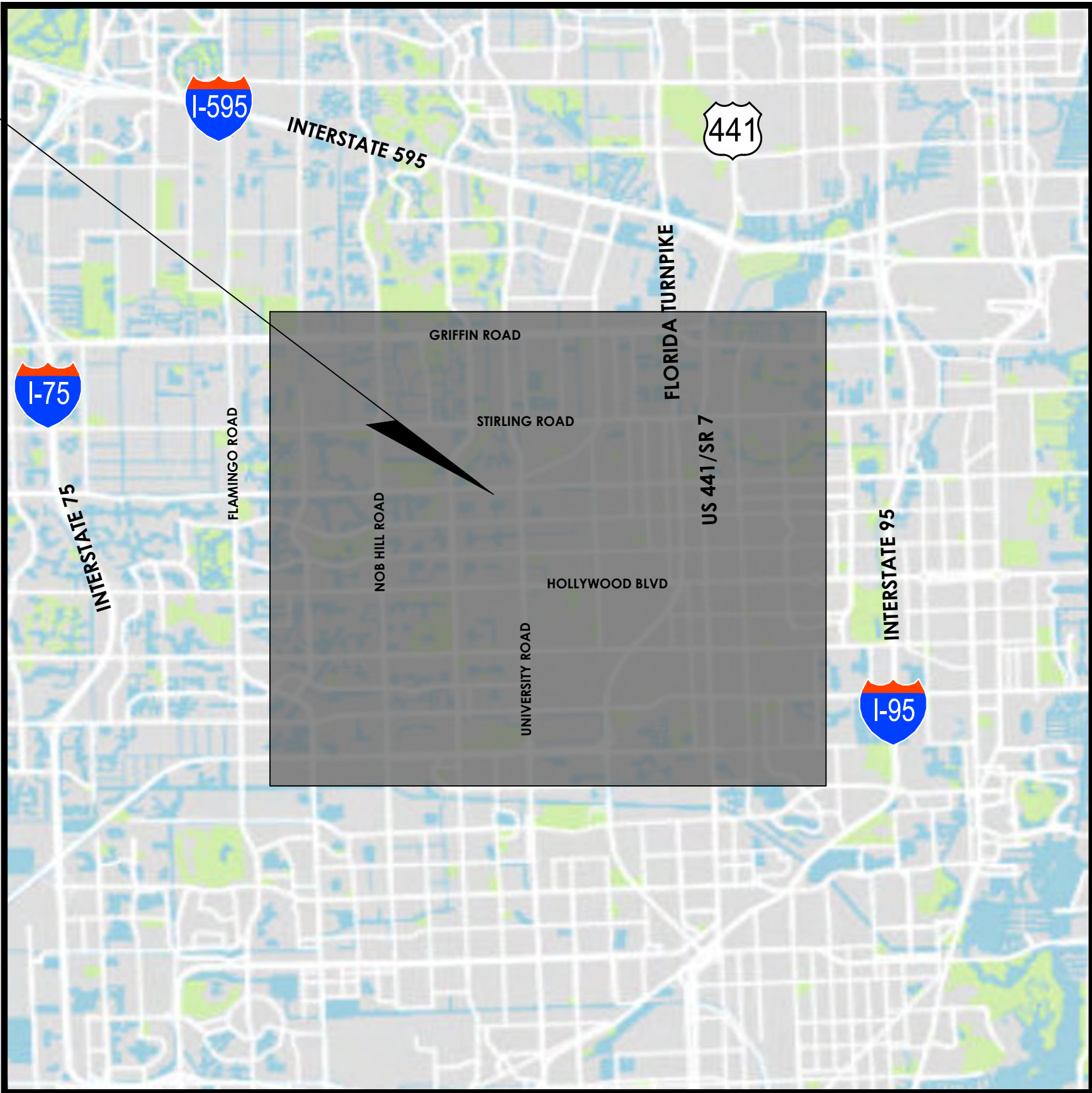
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COMMISSIONER, DISTRICT 2
COMMISSIONER, DISTRICT 3
COMMISSIONER, DISTRICT 4
COMMISSIONER, DISTRICT 5
COMMISSIONER, DISTRICT 6

PROJECT
LOCATION



LOCATION MAP

N.T.S



INDEX OF DRAWINGS

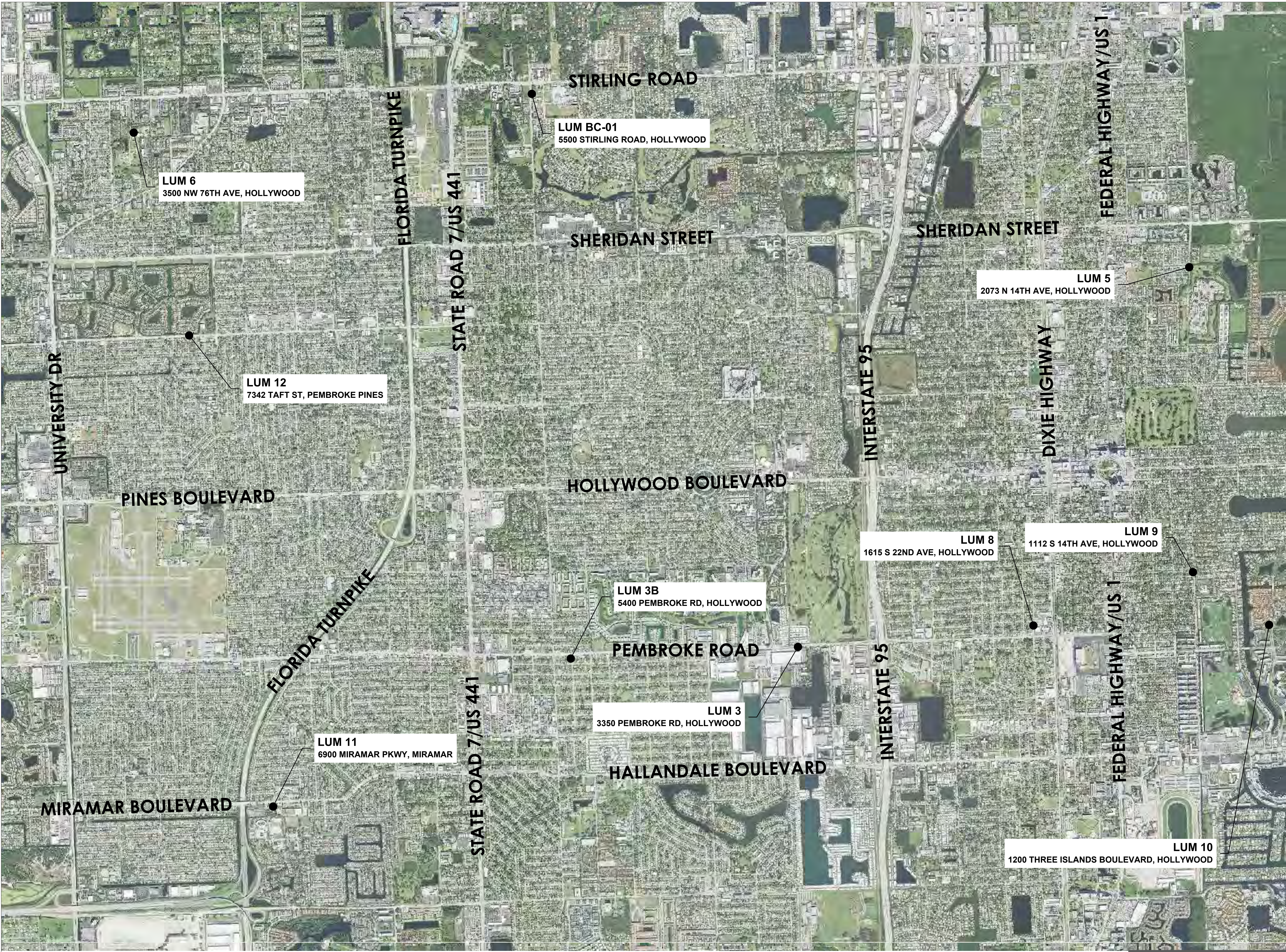
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01	COV-1	COVER
02	KEY-1	KEY MAP
03 - 12	LUM-03 - LUM-8C	EXISTING CONDITIONS AND PLAN
13	D-1	DETAILS

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PROJECT NUMBER 24-0136.00017
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DRAWING NUMBER COV-1 01 OF 13

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CLIENT



PROJECT INFORMATION

**LARGE USER
METER
REPLACEMENT**

CITY OF HOLLYWOOD,
FLORIDA

PROJECT NUMBER
24-0136.00017

CLIENT PROJECT NUMBER

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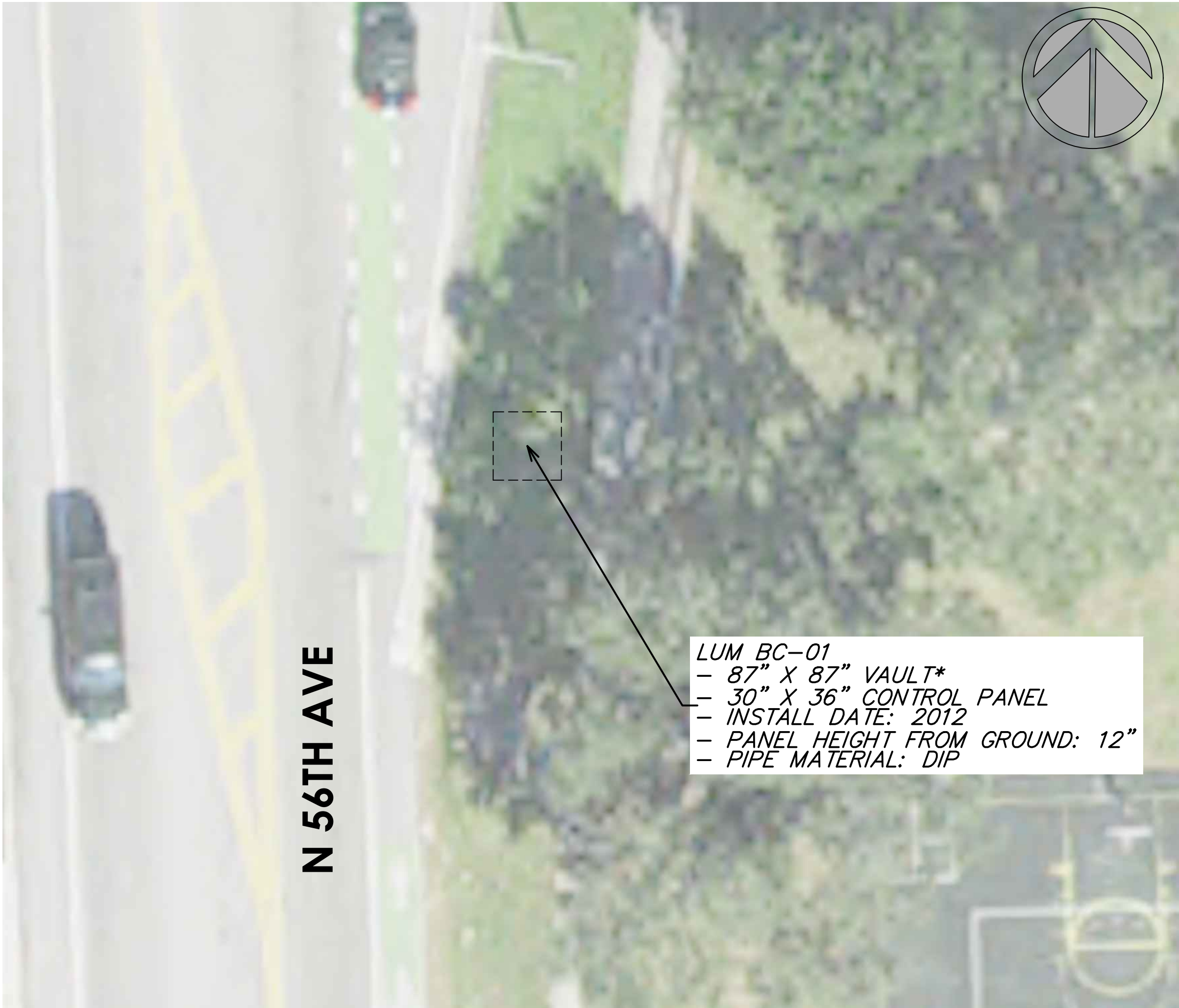
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KEY MAP

DRAWING NUMBER

KEY-1
02 OF 13

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N 56TH AVE

LUM BC-01
- 87" X 87" VAULT*
- 30" X 36" CONTROL PANEL
- INSTALL DATE: 2012
- PANEL HEIGHT FROM GROUND: 12"
- PIPE MATERIAL: DIP

LUM BC-01 (5500 STIRLING ROAD, HOLLYWOOD)
LOCATED 285 FT SOUTH OF STIRLING ROAD
* = VAULT MEASUREMENTS TO BE VERIFIED

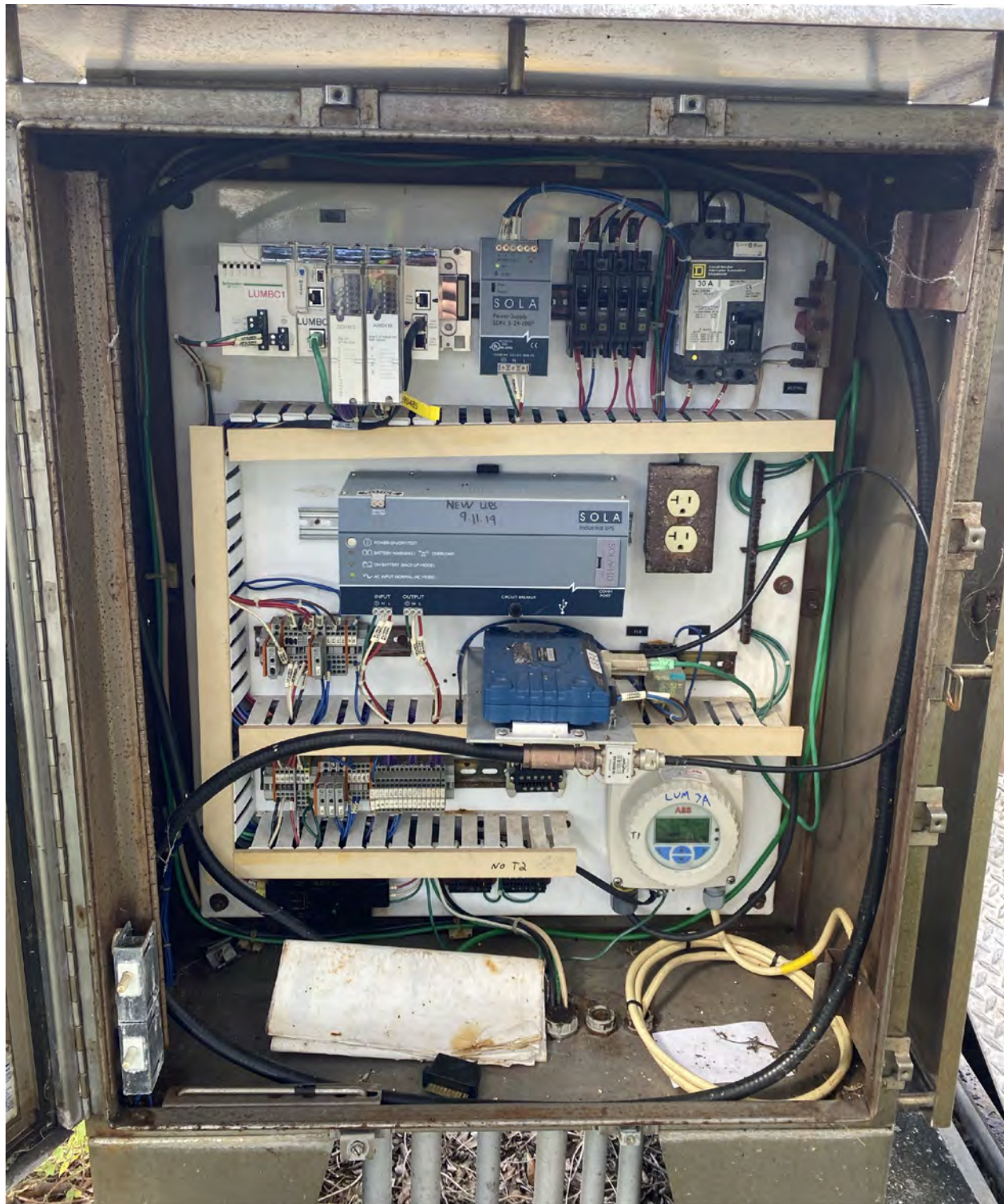


N 56TH AVE



EXISTING SUMP PUMP AND
ASSOCIATED PIPING TO BE
REMOVED AND REPLACED

EXISTING 16" ABB METER
ASSEMBLY TO BE
REMOVED AND REPLACED



LUM BC-01 ELECTRICAL PANEL
TO BE RAISED 30" ABOVE THE GROUND

LUM-BC-01 SCOPE:

1. REPLACE 16" ABB METER ASSEMBLY
2. REPLACE SUMP PUMP WITH ZOELLER PUMP COMPANY M98 ½ HP AND ASSOCIATED PIPING
3. RAISE ELECTRICAL PANEL 30" ABOVE EXISTING GROUND

REGISTRATION

LUM BC-01

CLIENT



PROJECT INFORMATION

LARGE USER
METER
REPLACEMENT

CITY OF HOLLYWOOD,
FLORIDA

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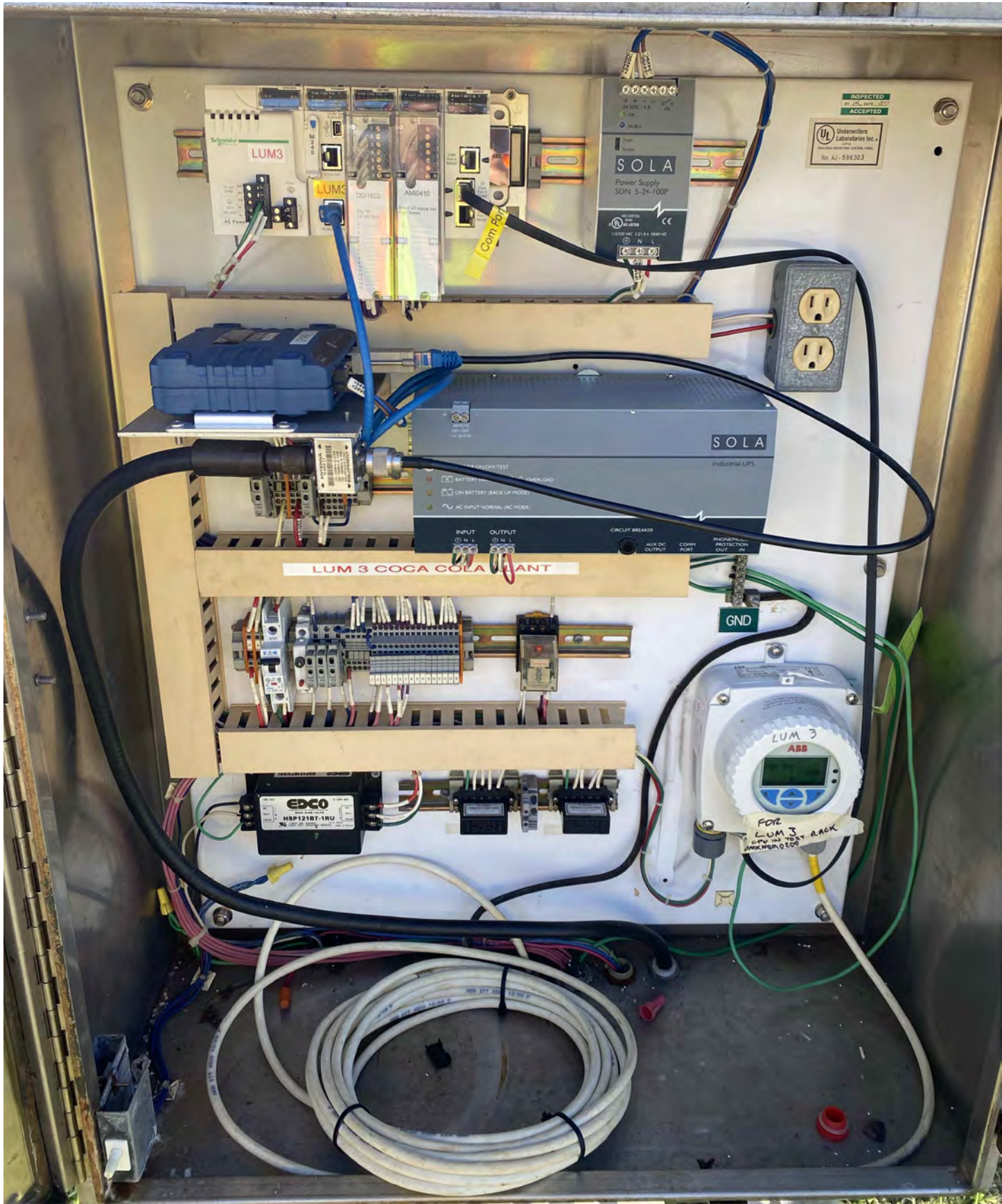
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LUM-BC
03 OF 13

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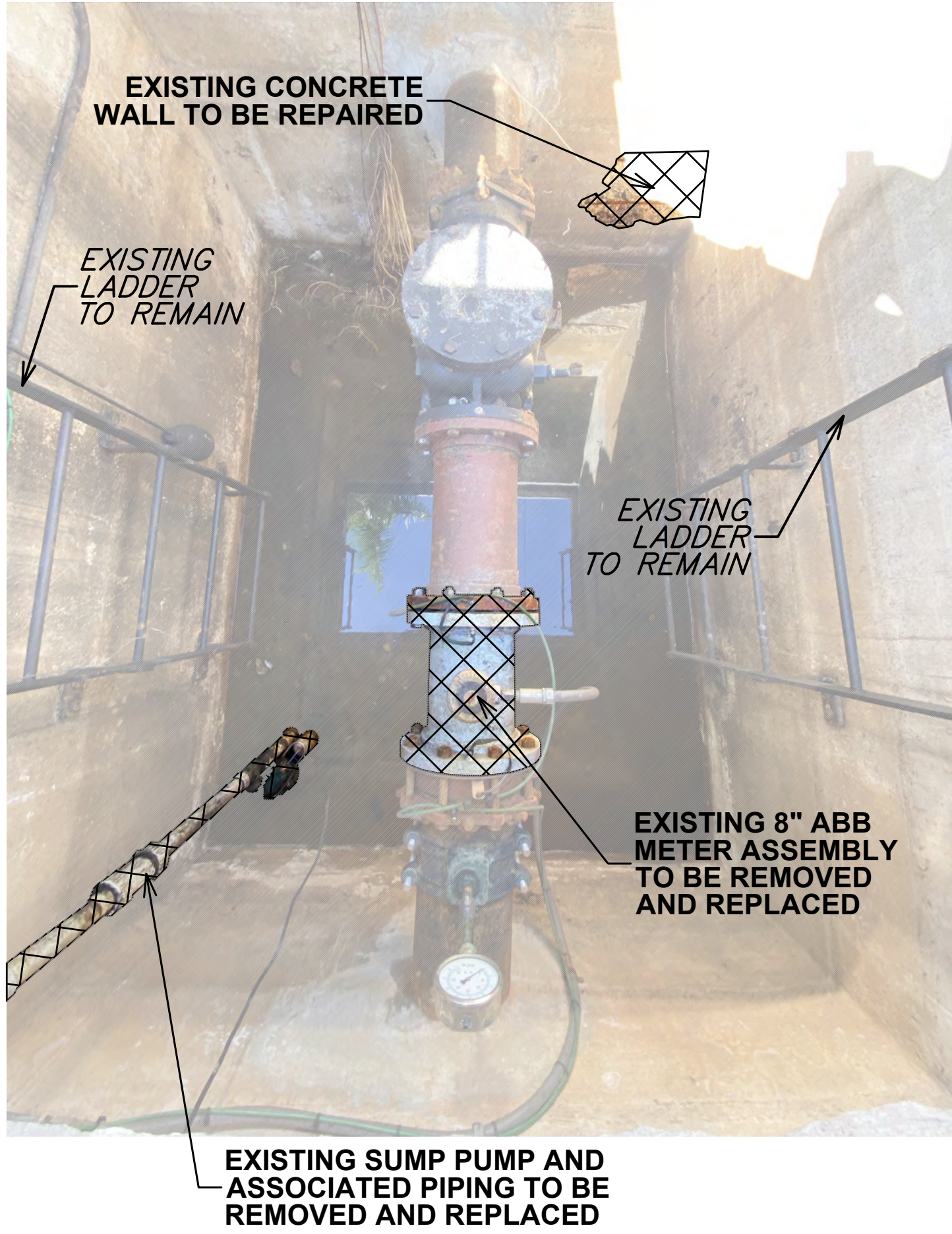
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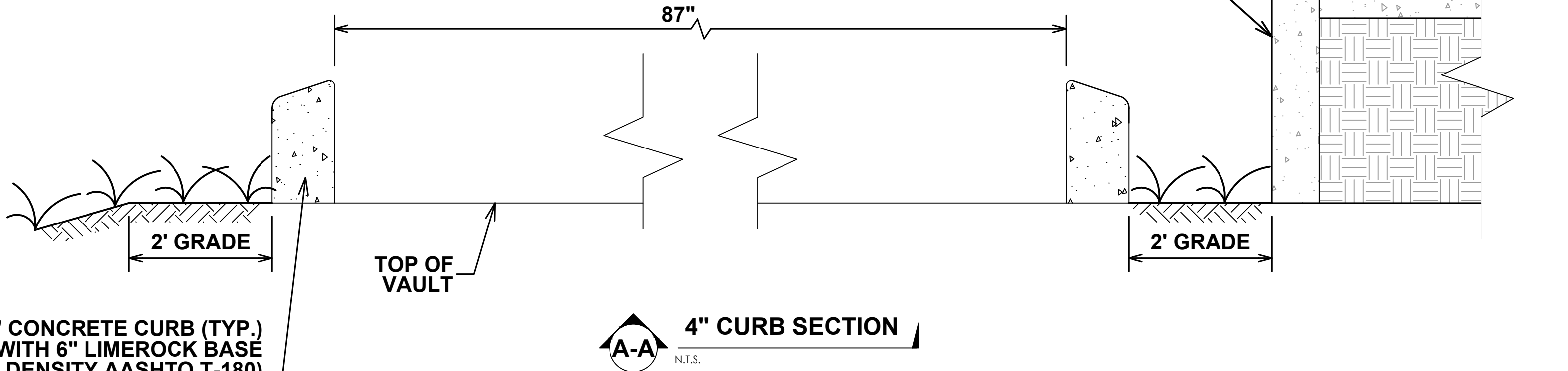
LUM 03 ELECTRICAL PANEL
TO REMAIN AT CURRENT ELEVATION



LUM 03 (3350 PEMBROKE ROAD, HOLLYWOOD)
LOCATED ON THE SOUTH SIDE OF PEMBROKE ROAD
* = VAULT MEASUREMENTS TO BE VERIFIED



4" CONCRETE CURB (TYP.)
WITH 6" LIMEROCK BASE
(COMPACTED TO 98% MAX. DENSITY AASHTO T-180)
AND 12" STABILIZED SUBGRADE (LBR40)
(COMPACTED TO 98% MAX. DENSITY AASHTO T-180)



- LUM-03 SCOPE:**
1. REPLACE 8" ABB METER ASSEMBLY
 2. REPLACE SUMP PUMP WITH ZOELLER PUMP COMPANY M98 ½ HP AND ASSOCIATED PIPING
 3. ADD 4" CURB AND 2' OF GRADE AROUND STRUCTURE
 4. REMOVE ROOTS FROM INSIDE VAULT
 5. CONCRETE WALL REPAIR IN AREA THAT IS SPALLING
 6. FIX VAULT DOOR HINGE

LUM-03

CLIENT



PROJECT INFORMATION

LARGE USER METER REPLACEMENT

CITY OF HOLLYWOOD,
FLORIDA

PROJECT NUMBER
24-0136.00017

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EXISTING CONDITIONS AND PLAN

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LUM-03
04 OF 13

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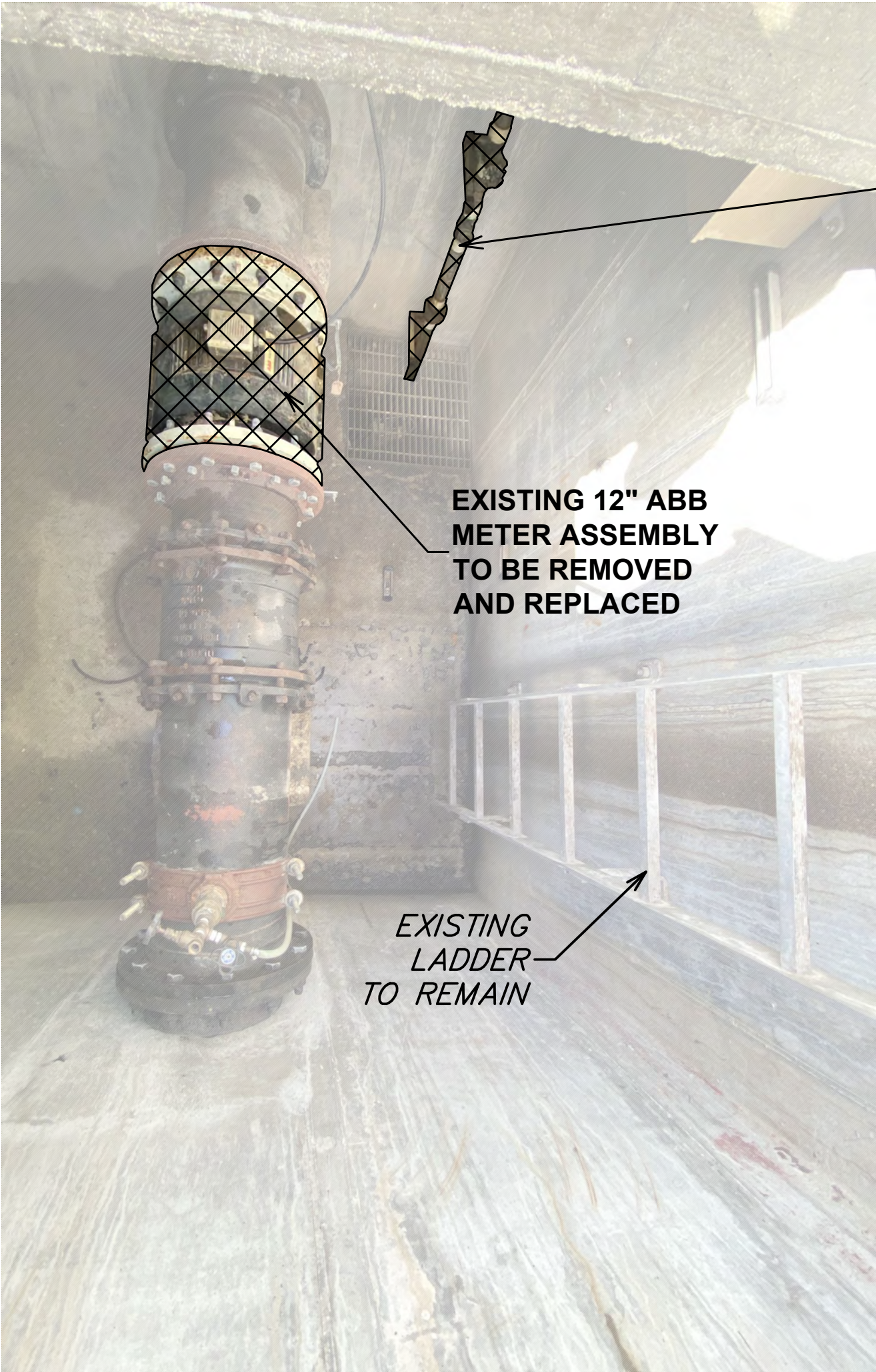


LUM 03B
- 123" X 107" VAULT*
- 30" X 37" CONTROL PANEL
- INSTALLED DATE: 2014
- PANEL HEIGHT FROM GROUND: 12"
- PIPE MATERIAL: DIP

LUM 03B (5400 PEMBROKE ROAD, HOLLYWOOD)
LOCATED 95 FT SOUTH OF PEMBROKE ROAD
* = VAULT MEASUREMENT TO BE VERIFIED



LUM 03B ELECTRICAL PANEL
TO BE RAISED 30" ABOVE THE GROUND



EXISTING SUMP PUMP AND
ASSOCIATED PIPING TO BE
REMOVED AND REPLACED

EXISTING 12" ABB
METER ASSEMBLY
TO BE REMOVED
AND REPLACED

EXISTING
LADDER
TO REMAIN

LUM-03B SCOPE:

1. REPLACE 12" ABB METER ASSEMBLY.
2. REPLACE SUMP PUMP WITH ZOELLER PUMP COMPANY M98 ½ HP AND ASSOCIATED PIPING.
3. LOCKING MECHANISM ON A CONTROL PANEL TO BE FIXED
4. RAISE ELECTRICAL PANEL 30" ABOVE EXISTING GROUND

REGISTRATION

LUM-03B

CLIENT



PROJECT INFORMATION

LARGE USER
METER
REPLACEMENT

CITY OF HOLLYWOOD,
FLORIDA

PROJECT NUMBER
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LUM-03B
05 OF 13

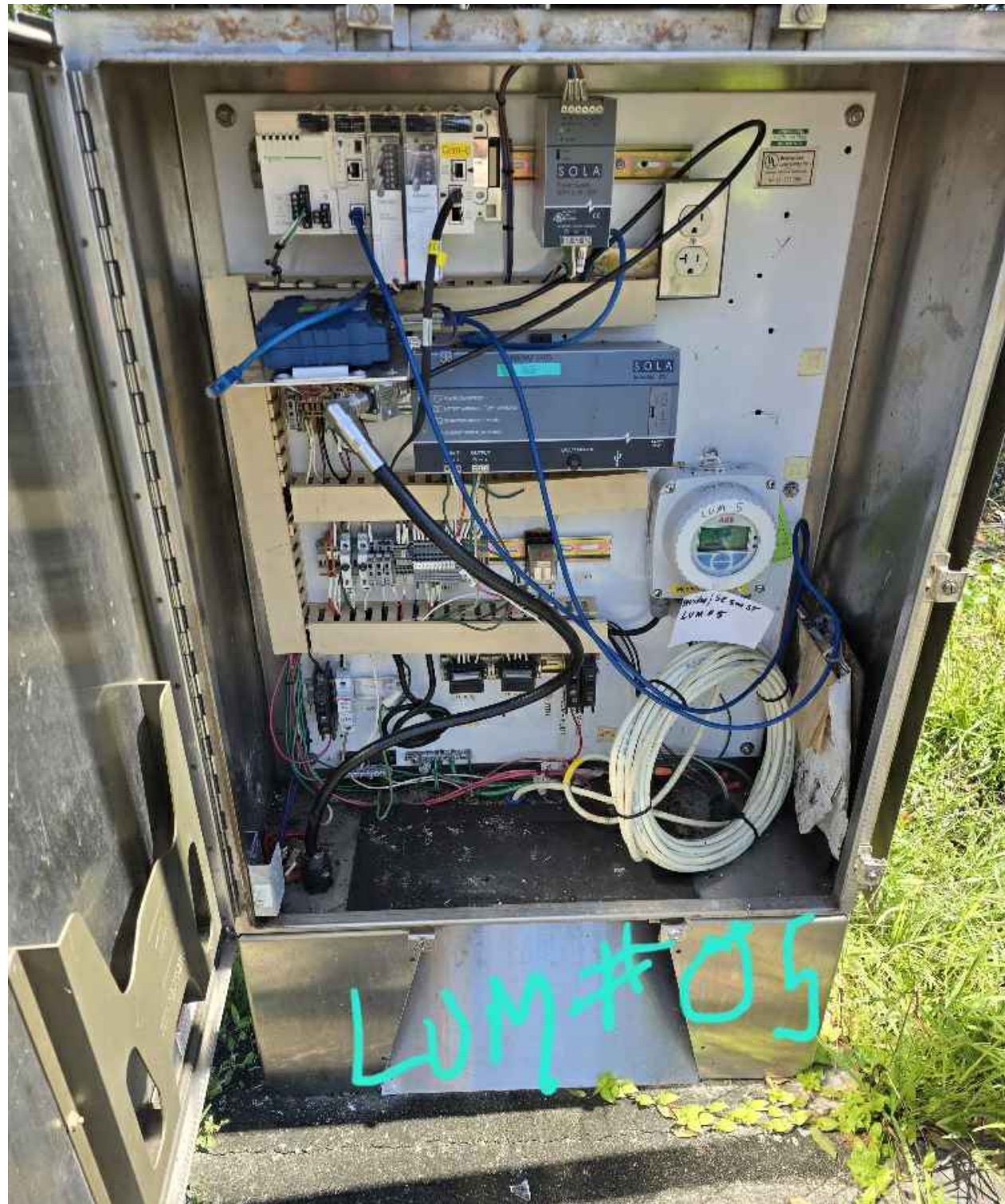
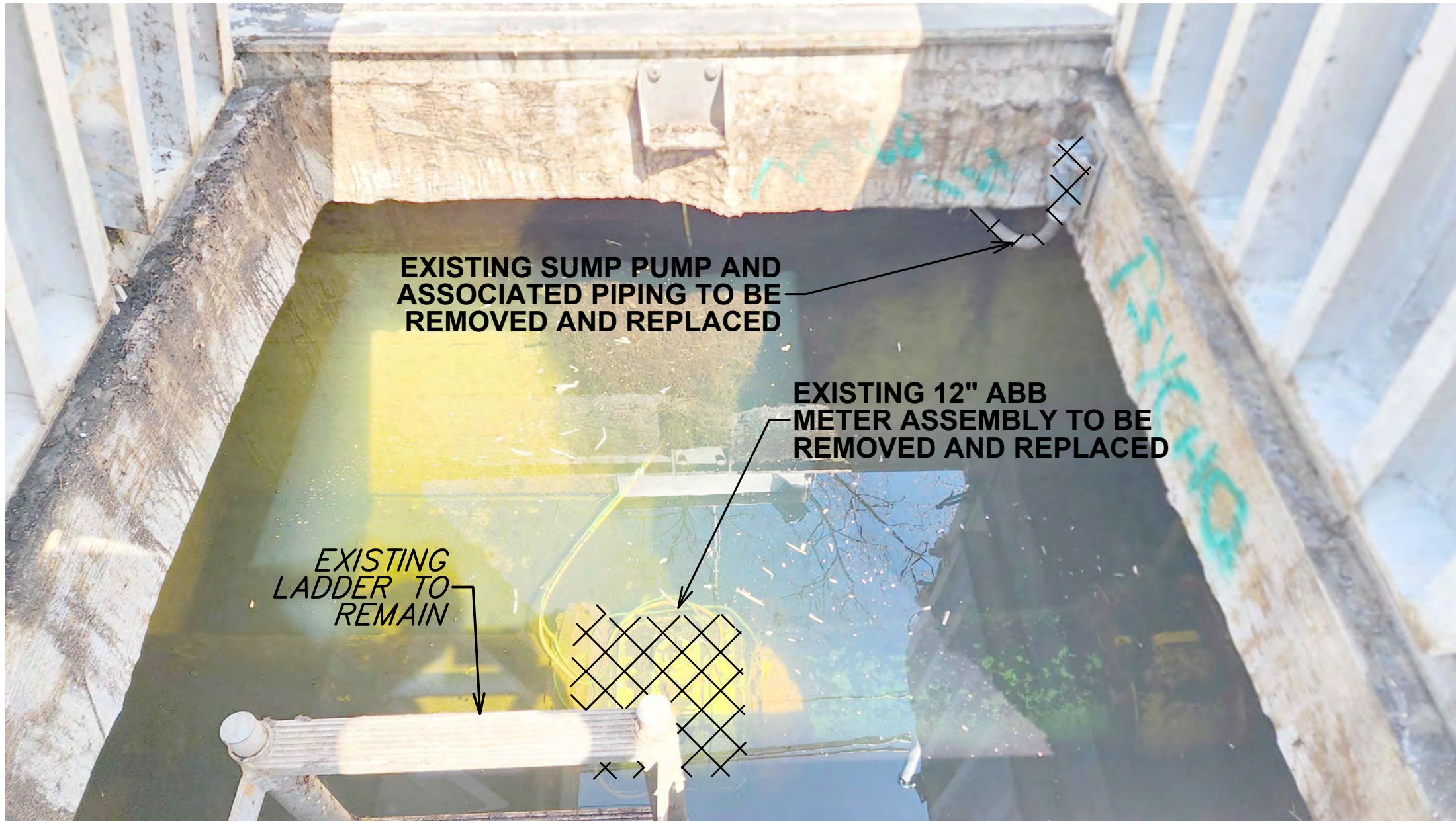
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LUM 05
- 108" X 120" VAULT*
- 36" X 32" CONTROL PANEL
- INSTALLED DATE: N/A
- PANEL HEIGHT FROM GROUND: 12"
- PIPE MATERIAL: N/A

LUM 05 (2073 N 14TH AVE, HOLLYWOOD)
LOCATED 1,376 FT SOUTH OF SHERIDAN STREET AND 2,745 FT
EAST OF FEDERAL HIGHWAY/US1
* = VAULT MEASUREMENTS TO BE VERIFIED



LUM 05 ELECTRICAL PANEL
TO BE RAISED 30" ABOVE THE GROUND

- LUM-05 SCOPE:**
1. REMOVE ANY WATER INSIDE OF VAULT
 2. REPLACE 12" ABB METER ASSEMBLY
 3. REPLACE SUMP PUMP WITH ZOELLER PUMP COMPANY M98 ½ HP AND ASSOCIATED PIPING
 4. RAISE ELECTRICAL PANEL 30" ABOVE EXISTING GROUND

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LUM-05

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PROJECT INFORMATION

LARGE USER
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CITY OF HOLLYWOOD,
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LUM-05
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Plot Date: 5/9/2025 3:39:48 PM Username: jspicer Layout Name: LUM-06 Folder Path: V:\Projects\2024\24-0136.00017 - Large Meter Replacement and Sampling\Design\CAD\Sheets Filename: 24-0136.00017 Existing Conditions and Demolition Sheet.dwg



LUM 06
- 96" X 120" VAULT*
- 32" X 36" CONTROL PANEL
- INSTALLATION DATE: N/A
- PANEL HEIGHT FROM GROUND: 29"
- PIPE MATERIAL: DIP (ONE SIDE OF METER IS PVC)

NW 76TH AVE

LUM 06 (3500 NW 76TH AVE, HOLLYWOOD)
LOCATED 1,845 FT SOUTH OF STIRLING ROAD
* = VAULT MEASUREMENTS TO BE VERIFIED



LUM 06 ELECTRICAL PANEL
TO REMAIN AT CURRENT ELEVATION



EXISTING SUMP PUMP AND
ASSOCIATED PIPING TO BE
REMOVED AND REPLACED

EXISTING 12" ABB
METER ASSEMBLY TO BE
REMOVED AND REPLACED

EXISTING
LADDER TO
REMAIN

LUM-06 SCOPE:

1. REPLACE 12" ABB METER ASSEMBLY
2. REPLACE SUMP PUMP WITH ZOELLER PUMP
COMPANY M98 ½ HP AND ASSOCIATED PIPING

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REGISTRATION

LUM-06

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PROJECT INFORMATION

**LARGE USER
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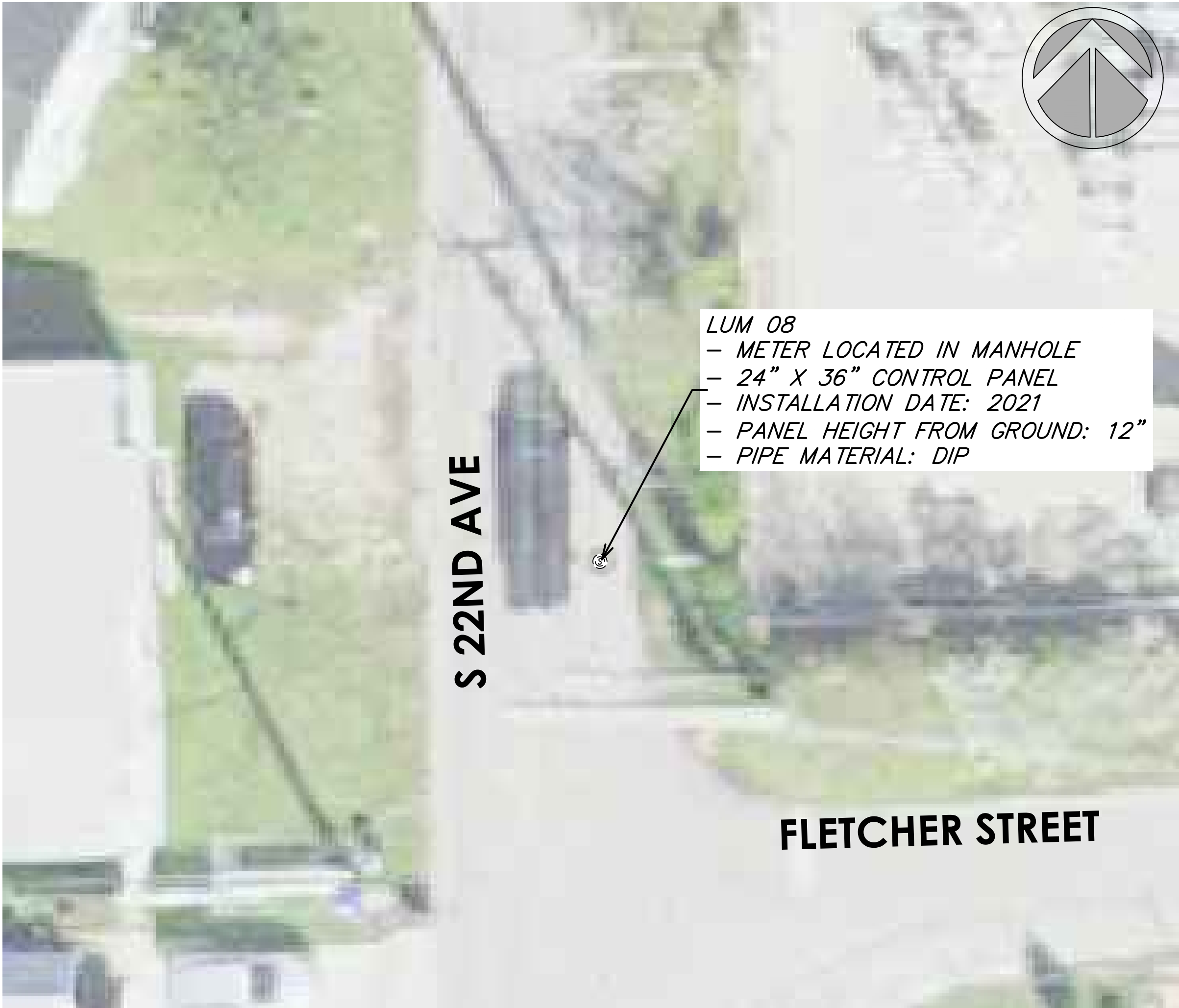
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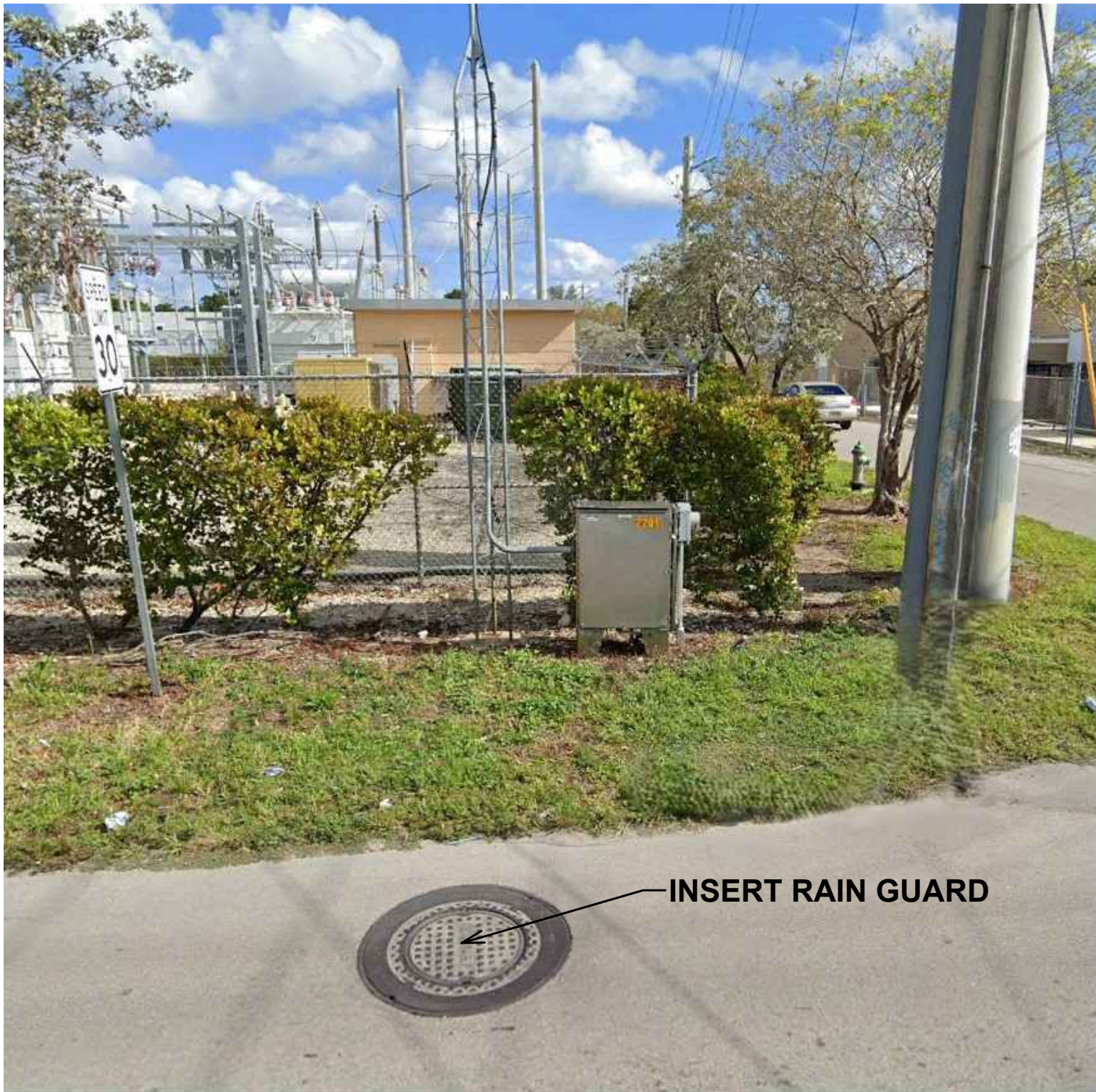
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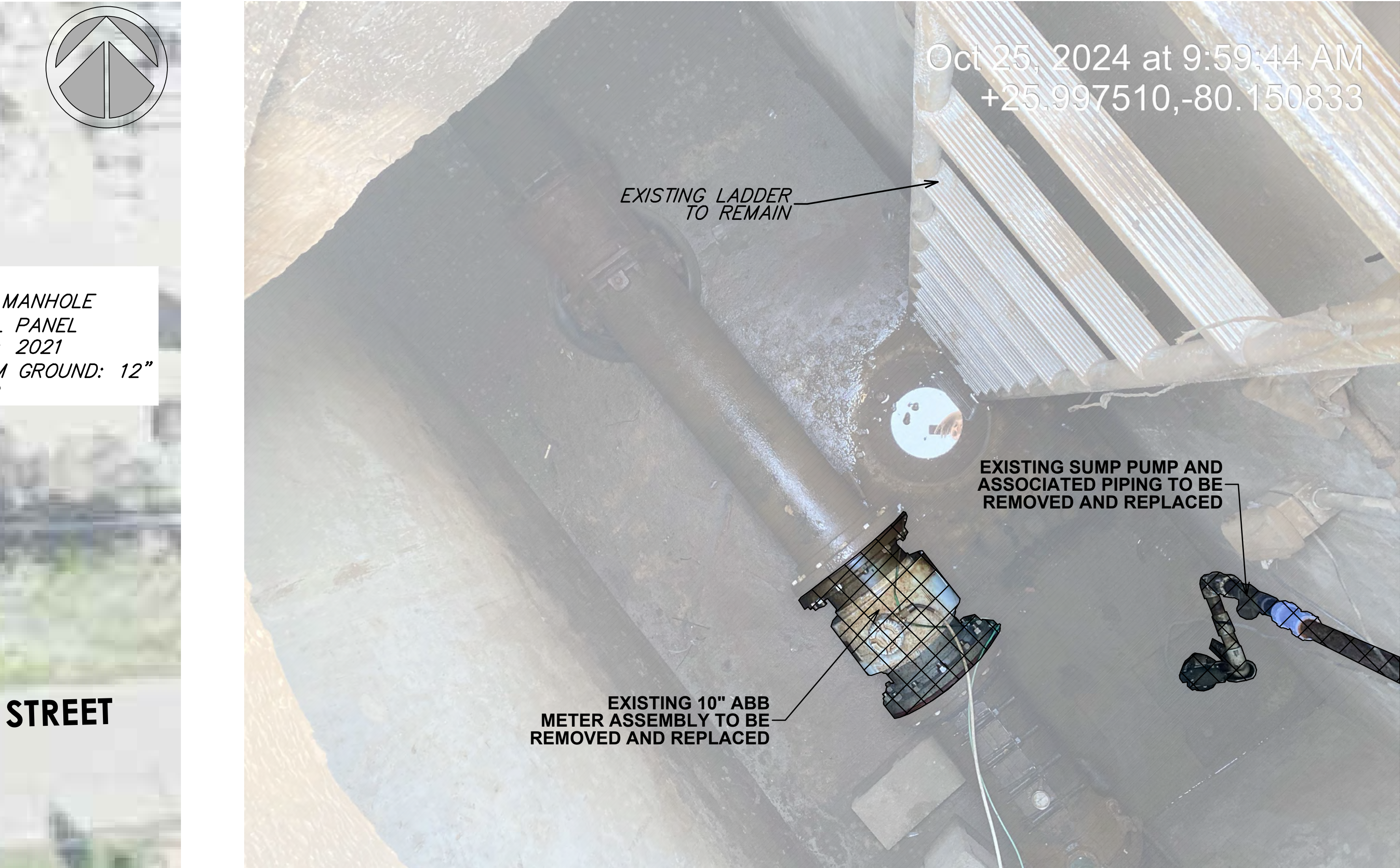
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LUM 08 (1615 S 22ND AVE, HOLLYWOOD)
LOCATED 352 FT NORTH OF PEMBROKE ROAD AND 616 FT EAST OF DIXIE HIGHWAY



METER LOCATION IN PAVEMENT



LUM 08 ELECTRICAL PANEL
TO BE RAISED 30" ABOVE THE GROUND

LUM-08 SCOPE:

1. REPLACE 10" ABB METER ASSEMBLY
2. REPLACE SUMP PUMP WITH ZOELLER PUMP COMPANY M98 ½ HP AND ASSOCIATED PIPING
3. RAIN GUARD SHALL BE INSERTED ON THE MANHOLE TOP TO PREVENT FLOODING THE VAULT
4. RAISE ELECTRICAL PANEL 30" ABOVE EXISTING GROUND

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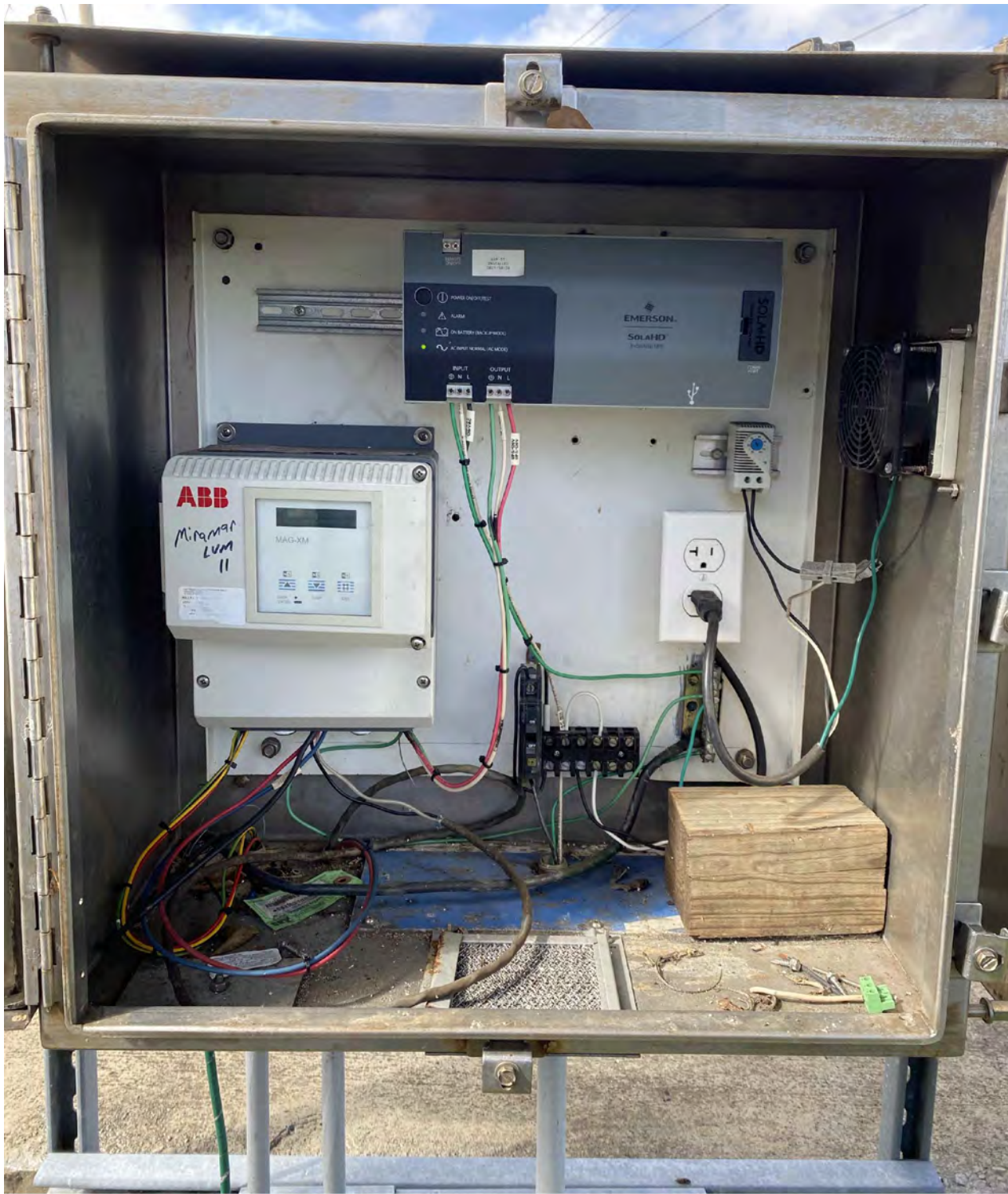
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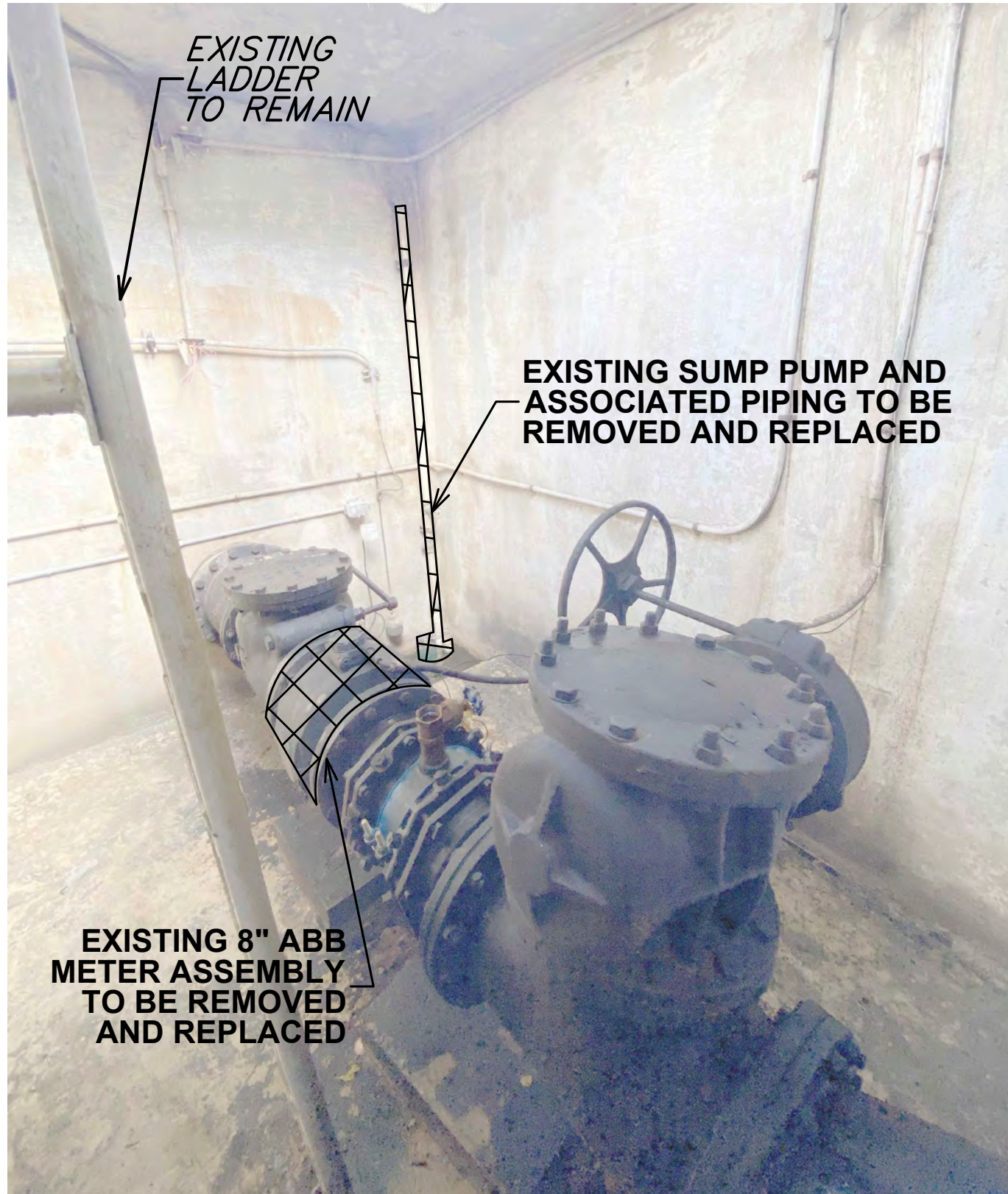
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LUM 11 (6900 MIRAMAR PARKWAY, MIRAMAR)
LOCATED SOUTH OF MIRAMAR PARKWAY,
EAST OF FLORIDA'S TURNPIKE
*= VAULT DIMENSIONS TO BE VERIFIED



LUM 11 ELECTRICAL PANEL
TO REMAIN AT CURRENT ELEVATION



- LUM-11 SCOPE:**
1. REPLACE 8" ABB METER ASSEMBLY
 2. REPLACE SUMP PUMP WITH ZOELLER PUMP COMPANY M98 ½ HP AND ASSOCIATED PIPING

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LUM-11

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FLORIDA

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LUM 12 (7342 TAFT STREET, PEMBROKE PINES)
LOCATED 4,416 FT EAST OF N UNIVERSITY DRIVE AND
2,531 FT SOUTH OF SHERIDAN STREET
* = VAULT MEASUREMENTS TO BE VERIFIED



CLEAN HATCH
ROOVES



LUM 12 ELECTRICAL PANEL
TO REMAIN AT CURRENT ELEVATION

- LUM-12 SCOPE:**
1. REPLACE 20" ABB METER ASSEMBLY
 2. REPLACE SUMP PUMP WITH ZOELLER PUMP COMPANY MP98 ½ HP AND ASSOCIATED PIPING
 3. CLEAN VAULT HATCH GROOVES

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REGISTRATION

LUM-12

CLIENT



PROJECT INFORMATION

**LARGE USER
METER
REPLACEMENT**

CITY OF HOLLYWOOD,
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CONDITIONS
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LUM-12
12 OF 13

5.2 FEW – DN150 to 400 (6 to 16 in. NB)

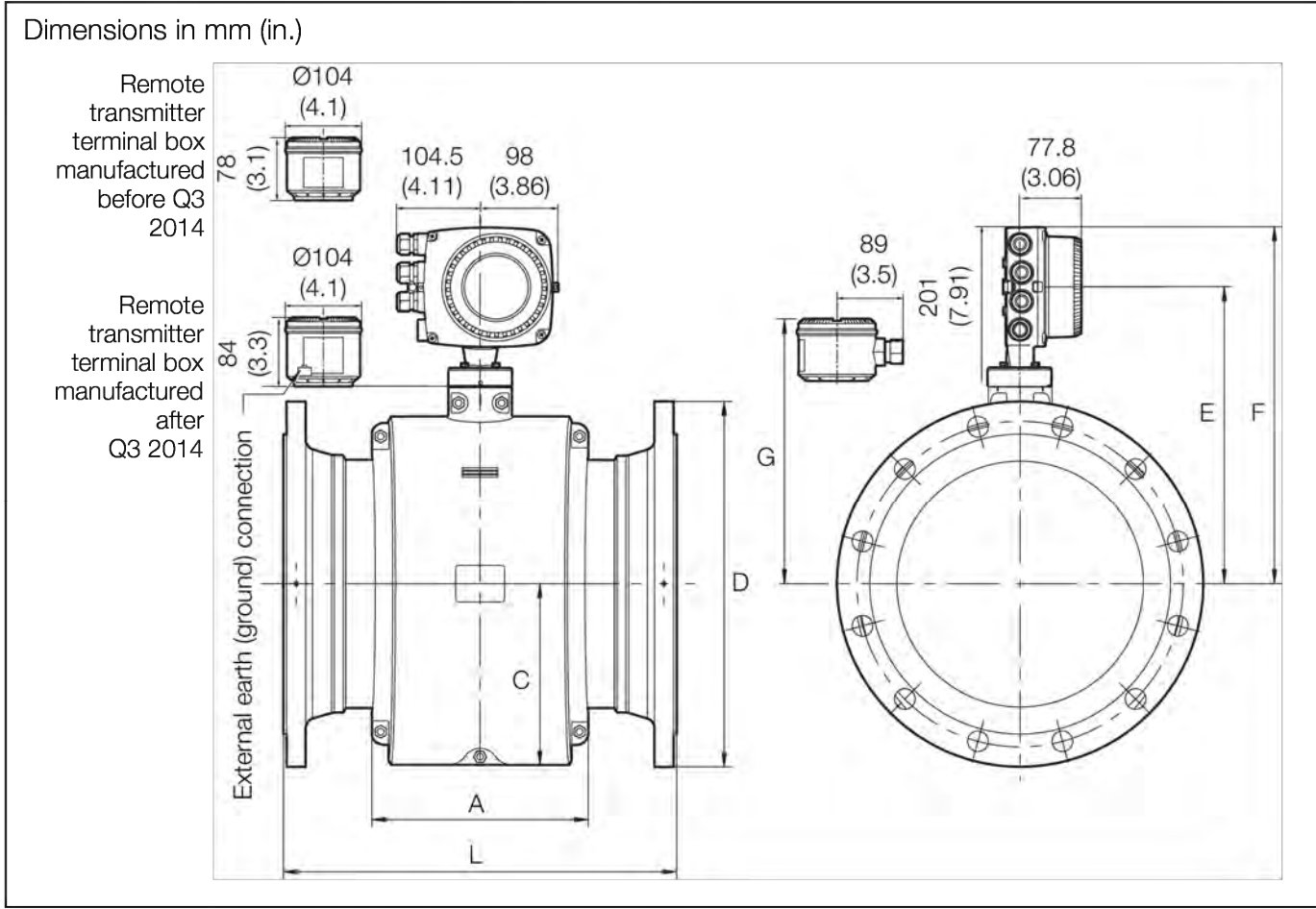


Fig. 5.2 DN150 to 400 (6 to 16 in. NB) (FEW)

DN	Mating flange type	Dimensions in mm (in.)							Approx. weight in kg (lb)	
		D	L	F	C	E	G	A	Integral	Remote
DN150 (6 in.)	PN10 to 16	285 (11.22)	300 (11.81)	371 (14.61)	146 (5.88)	296 (11.65)	251 (9.88)	166 (6.54)	33 (7.3)	31 (68)
	PN25 to 40	300 (11.81)							39 (86)	37 (81)
	JIS5K	265 (10.43)							33 (73)	31 (68)
	JIS10K	280 (11.02)								
	AS4087 PN16	280 (11.02)								
	AS4087 PN35	305 (11.81)							39 (86)	37 (81)
	ASME B16.5 CL300	320 (12.60)							47 (103)	45 (99)
	ASME B16.5 CL150	279 (10.98)							33 (73)	31 (68)
	PN10	340 (13.39)	350 (13.78)	411 (16.18)	170 (6.69)	336 (13.23)	291 (11.48)	200 (7.87)	41 (90)	39 (86)
	PN16	340 (13.39)								
DN200 (8 in.)	PN25	380 (14.17)							55 (121)	53 (117)
	PN40	375 (14.76)							65 (143)	63 (139)
	AS4087 PN16	335 (13.19)							41 (90)	39 (86)
	AS4087 PN35	370 (14.57)							65 (143)	63 (139)
	JIS5K	320 (12.60)							41 (90)	39 (86)
	JIS10K	330 (12.99)								
	ASME B16.5 CL300	380 (14.96)							72 (158)	70 (154)
	ASME B16.5 CL150	345 (13.58)							50 (110)	48 (106)
	PN10	340 (13.39)	350 (13.78)	411 (16.18)	170 (6.69)	336 (13.23)	291 (11.48)	200 (7.87)	41 (90)	39 (86)
	PN16	340 (13.39)								

Table 5.2 DN150 to 400 (6 to 5 in. NB) (FEW) dimensions / weights

OI/FEV/FEV/FEW-EN Rev. J

DN	Mating flange type	Dimensions in mm (in.)							Approx. weight in kg (lb)	
		D	L	F	C	E	G	A	Integral	Remote
DN250 (10 in.)	PN10	395 (15.55)	450 (17.72)	426 (16.77)	198 (7.80)	351 (13.82)	306 (12.05)	235 (9.62)	61 (134)	59 (130)
	PN16	405 (15.94)							66 (143)	63 (139)
	PN25	425 (16.73)							84 (186)	82 (180)
	PN40	450 (17.72)							96 (209)	93 (206)
	AS4087 PN16	405 (15.94)							65 (143)	63 (139)
	AS4087 PN35	430 (16.93)							96 (209)	93 (206)
	JIS5K	385 (15.16)							66 (143)	63 (139)
	JIS10K	400 (15.75)								
	ASME B16.5 CL300	445 (17.52)							105 (231)	103 (227)
	ASME B16.5 CL150	405 (15.94)							70 (154)	68 (150)
DN300 (12 in.)	PN10	445 (17.52)	500 (19.69)	449 (17.68)	228 (8.98)	374 (14.72)	329 (12.95)	272 (10.71)	74 (163)	72 (158)
	PN16	460 (18.11)							80 (178)	78 (172)
	PN25	485 (19.09)							100 (222)	98 (216)
	JIS5K	430 (16.93)							80 (178)	78 (172)
	JIS10K	445 (17.52)								
	AS4087 PN16	455 (17.91)								
	AS4087 PN35	490 (19.29)							130 (286)	128 (282)
	ASME B16.5 CL300	520 (20.47)							150 (330)	148 (326)
	ASME B16.5 CL150	485 (19.09)							105 (231)	103 (227)
	PN40	515 (20.28)	600 (23.62)						130 (286)	128 (282)
DN350 (14 in.)	PN10	505 (19.88)	550 (21.65)	464 (18.27)	265 (10.43)	389 (15.31)	344 (13.54)	322 (12.68)	96 (209)	93 (206)
	PN16	520 (20.47)							110 (242)	108 (238)
	PN25	555 (21.85)							145 (319)	143 (315)
	JIS5K	480 (18.90)							96 (209)	93 (206)
	JIS10K	490 (19.29)								
	AS4087 PN16	525 (20.67)							130 (286)	128 (282)
	AS4087 PN35	560 (21.65)							185 (407)	183 (403)
	ASME B16.5 CL300	585 (23.03)							140 (308)	138 (304)
	ASME B16.5 CL150	535 (21.08)							105 (231)	103 (227)
	PN40	580 (22.83)	650 (25.59)						195 (429)	193 (425)
DN400 (16 in.)	PN10	565 (22.24)	600 (23.62)	506 (19.92)	265 (10.43)	431 (16.97)	386 (15.20)	322 (12.68)	103 (227)	101 (222)
	PN16	580 (22.83)							126 (277)	124 (273)
	PN25	620 (24.41)							170 (374)	168 (370)
	JIS5K	540 (21.26)							103 (227)	101 (223)
	JIS10K	560 (22.06)							116 (255)	114 (251)
	AS4087 PN16	580 (22.83)							154 (339)	152 (335)
	AS4087 PN35	610 (24.02)							302 (664)	300 (660)
	ASME B16.5 CL300	650 (25.59)							265 (583)	263 (578)
	ASME B16.5 CL150	600 (23.62)							175 (385)	173 (381)
	PN40	660 (25.98)	650 (25.59)						258 (568)	256 (564)

Table 5.2 DN150 to 400 (6 to 5 in. NB) (FEW) dimensions / weights (Continued)

26

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5.3 FEW – DN450 to 2400 (18 to 96 in. NB)

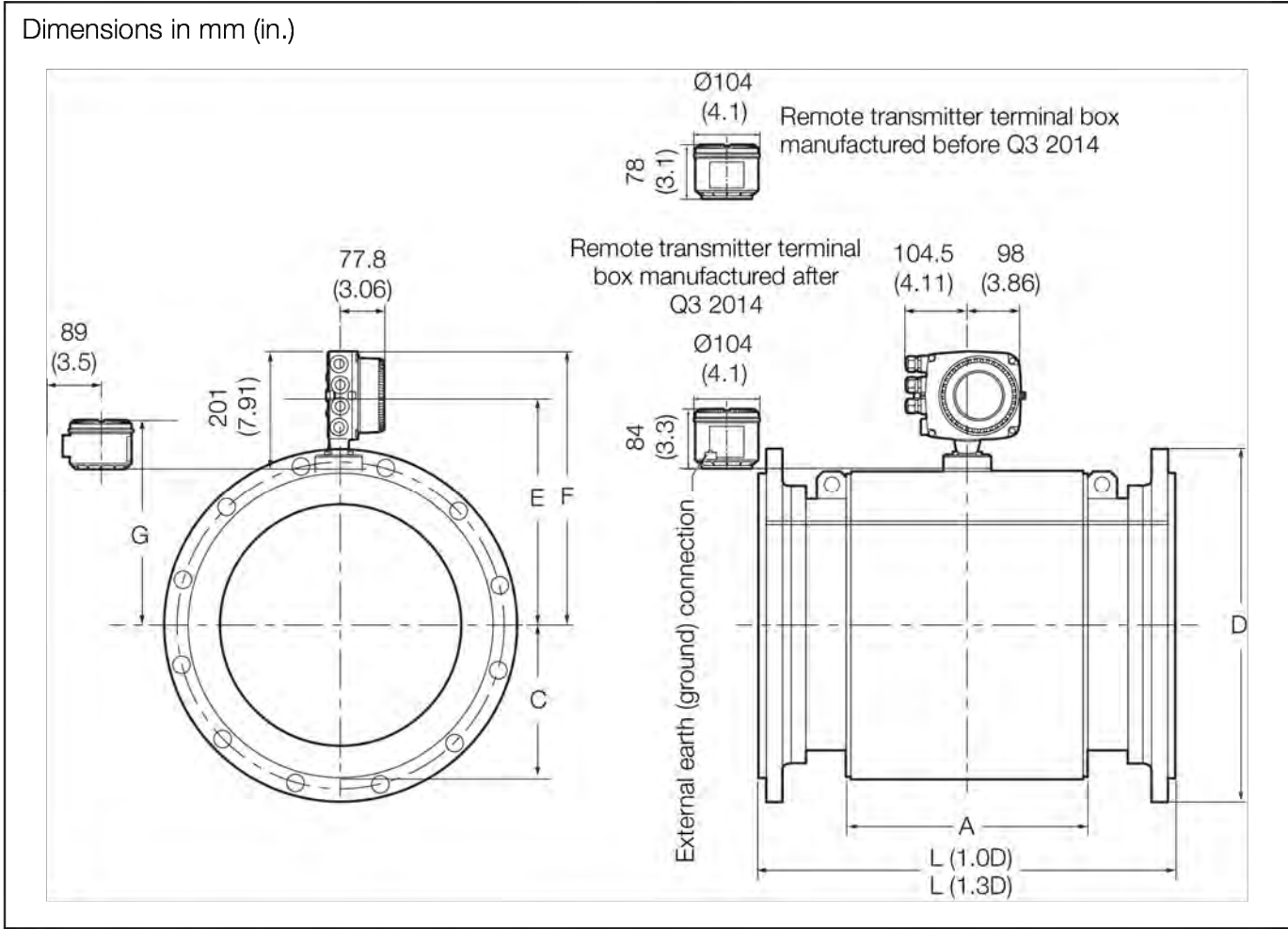


Fig. 5.3 DN450 to 2400 (18 to 96 in. NB) (FEW)

DN	Mating flange type	Dimensions in mm (in.)							Approx. weight in kg (lb)	
		D	L (1.6D)	L (1.3D)	F	C	E	G	A	Integral Remote
DN450 (18 in.)	PN10	615 (24.21)	N/A	600 (23.62)	514 (20.24)	310 (12.20)	439 (17.28)	394 (15.51)	328 (12.91)	173 (381) 171 (377)
	PN16	640 (25.20)								186 (414) 186 (410)
	JIS5K	605 (23.82)								166 (364) 163 (359)
	JIS10K	620 (24.41)								
	AS4087 PN16	640 (25.20)								232 (511) 230 (507)
	AS4087 PN35	675 (26.57)								328 (723) 326 (718)
	ASME B16.5 CL300	710 (27.95)								368 (811) 366 (807)
	ASME B16.5 CL150	635 (25.00)								250 (551) 248 (547)
	PN25	670 (26.38)	N/A	686 (27.01)						245 (540) 243 (536)
	PN40	665 (26.97)								315 (694) 313 (690)

Table 5.3 DN450 to 2400 (18 to 96 in. NB) (FEW) dimensions / weights

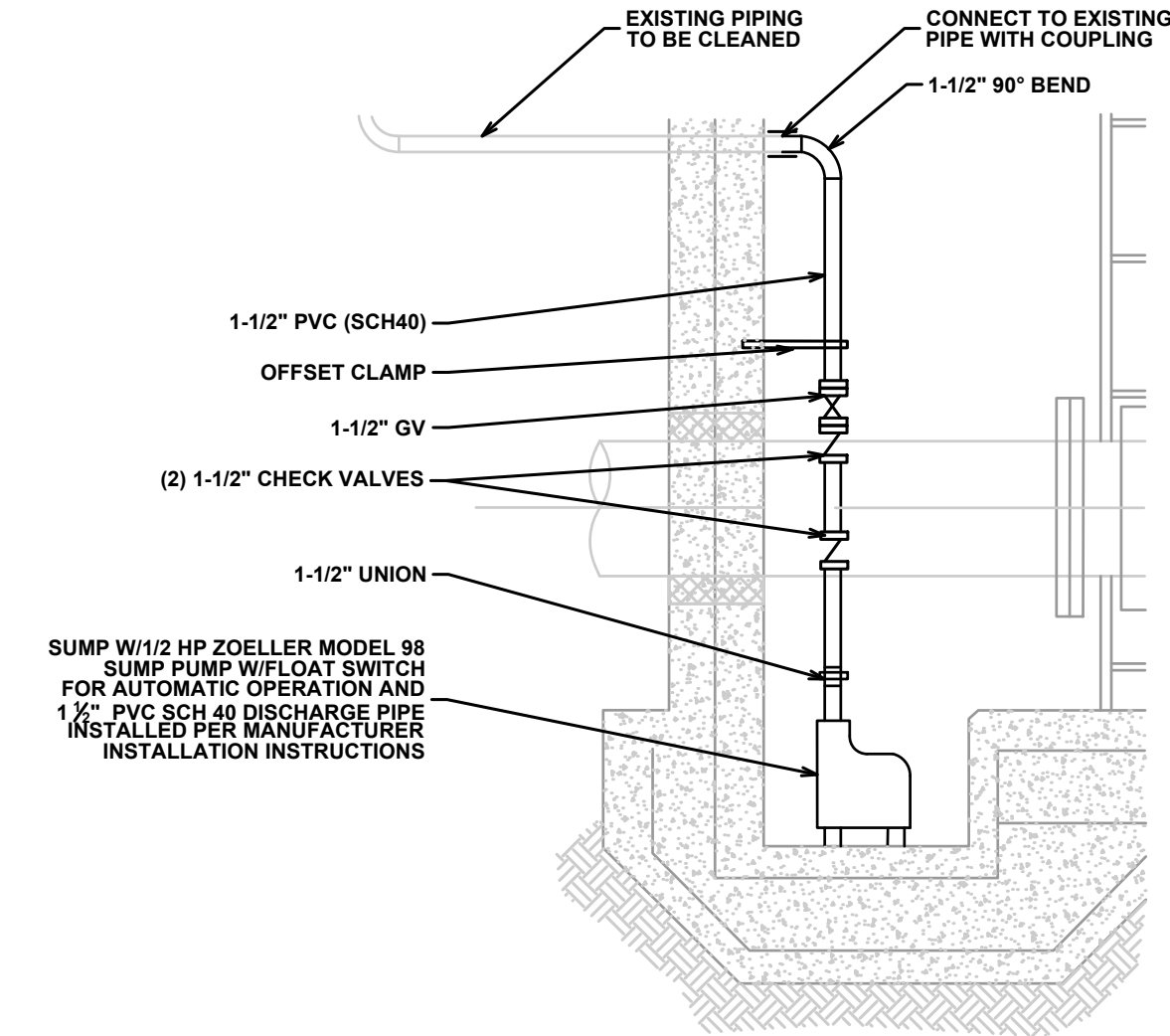
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DN	Mating flange type	Dimensions in mm (in.)							Approx. weight in kg (lb)	
		D	L (1.0D)	L (1.3D)	F	C	E	G	A	Integral Remote
DN500 (24 in.)	PN10	670 (26.38)	N/A	600 (23.62)	514 (20.24)	310 (12.20)	439 (17.28)	394 (15.51)	367 (14.45)	190 (418) 188 (413)
	PN16	715 (28.15)								240 (528) 238 (524)
	JIS5K	655 (25.79)								190 (418) 188 (413)
	JIS10K	675 (26.57)								
	AS4087 PN16	705 (27.76)								290 (638) 288 (634)
	AS4087 PN35	735 (28.94)								435 (957) 433 (953)
	ASME B16.5 CL150	700 (27.56)								300 (660) 298 (656)
	ASME B16.5 CL300	775 (30.51)	N/A	762 (30.00)						490 (1080) 488 (1076)
	PN25	730 (28.74)	N/A	700 (27.56)						300 (661) 298 (657)
	PN40	755 (29.72)	N/A	762 (30.00)						392 (864) 390 (860)
DN600 (24 in.)	PN10	750 (30.71)	N/A	800 (31.50)	565 (22.24)	361 (14.21)	490 (19.29)	445 (17.52)	469 (18.48)	284 (626) 282 (622)
	PN16	840 (33.07)								318 (700) 316 (696)
	PN25	845 (33.27)								460 (1012) 458 (1008)
	JIS5K	770 (30.31)								275 (605) 273 (600)
	JIS10K	795 (31.30)								306 (673) 304 (668)
	AS4087 PN16	825 (32.48)								382 (840) 380 (835)
	AS4087 PN35	850 (33.46)								452 (994) 450 (990)
	ASME B16.5 CL300	915 (36.02)								550 (1210) 548 (1205)
	ASME B16.5 CL150	815 (32.09)								425 (935) 423 (930)
	PN40	890 (35.04)	N/A	880 (35.04)						600 (1320) 598 (1316)
DN700 (28 in.)	JIS 5K	875 (34.45)	700 (27.56)	910 (35.83)	604 (23.77)	403 (15.87)	528 (20.79)	488 (19.21)	444 (17.48)	216 (475) 214 (471)
	JIS 10K	905 (35.63)								282 (620) 280 (616)
	PN6	860 (33.86)								225 (495) 223 (491)
	PN10	865 (33.24)								303 (667) 301 (662)
	PN16	910 (35.83)								337 (741) 335 (737)
	AWWA C207 CLASS B	927 (36.50)								249 (548) 247 (543)
	AWWA C207 CLASS D	927 (36.50)								280 (616) 278 (612)
	AS4087 PN16	910 (35.83)								359 (790) 357 (785)
	AS2129 TABLE-D	910 (35.83)								263 (579) 261 (574)
	AS2129 TABLE-E	910 (35.83)								337 (741) 335 (737)

Table 5.3 DN450 to 2400 (18 to 96 in. NB) (FEW) dimensions / weights (Continued)

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