Solicitation 12100-693

Demolition and Abandonment of Pump Stations A-44, A-97 and C-3 (P11889)

Bid Designation: Public



City of Fort Lauderdale

Bid 12100-693

Demolition and Abandonment of Pump Stations A-44, A-97 and C-3 (P11889)

Bid Number 12100-693

Bid Title Demolition and Abandonment of Pump Stations A-44, A-97 and C-3 (P11889)

Bid Start Date Nov 8, 2018 4:02:25 PM EST
Bid End Date Jan 10, 2019 2:00:00 PM EST

Question & Answer

End Date

Jan 2, 2019 5:00:00 PM EST

Bid Contact Maureen Lewis, MBA, CPPB

Procurement Specialist II

Finance

954-828-5239

maureenl@fortlauderdale.gov

Bid Contact Penelope Burger

Senior Procurement Specialist

Finance

954-828-5189

pburger@fortlauderdale.gov

Contract Duration One Time Purchase

Contract Renewal Not Applicable

Prices Good for 120 days

Pre-Bid Conference Nov 28, 2018 1:30:00 PM EST

Attendance is optional

Location: Pump Station #A-44

SW corner of Sunrise Blvd. and NW 6th Ave.

Fort Lauderdale, Florida

Bid Comments

The City of Fort Lauderdale, Florida (City) is seeking bids from qualified bidders, hereinafter referred to as the Contractor, to provide demolition and abandonment services for the City's Public Works Department, in accordance with the terms, conditions, and specifications contained in this Invitation To Bid (ITB).

Sealed bids will be received electronically until 2:00 P.M., local time, on <u>TUESDAY, DECEMBER 18, 2018</u>, and opened immediately thereafter in the 5th Floor Conference Room, City Hall, 100 North Andrews Avenue, Fort Lauderdale, Florida, 33301, for BID NO., 12100-693, PROJECT NO., 11889, DEMOLITION AND ABANDONMENT OF PUMP STATIONS A·44, A·97 AND C·3.

This Project consists of Drawing File No., WS-06-15, twelve (12) sheets including cover.

This Project is located at three (3) pump station sites in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, removal and disposal of all mechanical, electrical, ventilation equipment at the stations, cut and backfill stations below ground, and all site restoration including grading, sidewalks, curb, driveways, asphalt pavement, pavement markings, landscape, sod, etc.

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

Licensing Requirements: Possession of a Broward County Engineering Contractor's license and/or

appropriate license issued by the State of Florida is required for working within public rights-of-way and for this Project. Contractor must have proper licensing prior to submitting bid and must submit evidence of same.

<u>Pre-Bid Meeting/Site Visit:</u> A pre-bid meeting will be held on <u>WEDNESDAY</u>, <u>NOVEMBER</u> 28, 2018, at 1:30 p.m., <u>local time</u>, at Station A-44, <u>located at the SW corner of Sunrise Boulevard and NW 6 th Avenue.</u> The meeting will be followed by site visits to the other Stations, located as follows:

A-97: 150 SW 18th Avenue, Fort Lauderdale, FL 33312 (within the Sunnyreach Acres Townhomes);

NOTE: Contractors who wish to gain access to Station A-97 are required to submit proof of workman's compensation insurance at least 24 hrs. PRIOR to the site visit. Certificates should be submitted to the Procurement Specialist listed for this Bid/Project.

C·3: 3150 Riverland Road, Fort Lauderdale, FL 33312 (at the entrance to the New Middle River Elementary School).

While attendance is not mandatory, it is strongly suggested that all Contractors attend the pre-proposal conference and site visits since tours at other times might not be available. It will be the sole responsibility of the bidder to inspect the City's location(s)/facilities and become familiar with the scope of the City's requirements and systems prior to submitting a proposal. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a proposal will be considered evidence that the proposer has familiarized himself with the nature and extent of the work, equipment, materials, and labor required.

Bidding blanks may be obtained free of charge at BIDSYNC.COM. Drawing Plans are on file in the Public Works Department, City of Fort Lauderdale, at 100 North Andrews Avenue, 4th floor, (Monday through Friday, 8:00 am to 4:30 pm) at a NON-REFUNDABLE cost of \$25.00 (including sales tax per set). Only cash or cashier's check made payable to the City of Fort Lauderdale is accepted.

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

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

Bid Bonds:

Bidders can submit bid bonds for projects four different ways.

- BidSync allows bidders to submit bid bonds electronically directly through their system using Surety
 For more information on this feature and to access it, contact
 BIDSYNC customer care department.
- 2) Bidders may upload their original executed bid bond on BIDSYNC to accompany their bids with the electronic proposal, and deliver the original, signed and sealed hard copy

within five (5) business days after bid opening, with the company name, bid number and title clearly indicated.

3) Bidders can hand deliver their bid bond in a sealed envelope to the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort

Lauderdale, FL 33301-1016, before time of bid opening, with the company name, bid number and title clearly indicated on the envelope.

4) Bidders can mail their bid bond to the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, FL 33301·1016, before time

of bid opening, with the company name, bid number and title clearly indicated on the envelope.

Certified Checks, Cashier's Checks and Bank Drafts

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

title clearly indicated on the envelope.

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

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

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

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

Added on Nov 28, 2018:
Pre-Bid Mtg. attendance record added.
Added on Dec 6, 2018:
Road Restoration detail added.
Added on Dec 7, 2018:
Bid opening date has been extended.
Added on Dec 18, 2018:
Bid Allowance has been updated.
Tech. Spec 01025 has been revised.

Addendum # 1

New Documents	P11889.Pre-Bid Mtg. Attendance Record.11-28-18.pdf	

Addendum # 2

New Documents P11889.ADDENDUM 2.pdf

Addendum # 3

Previous Q & A End Date Dec 10,	2018 5:00:00 PM EST	New Q & A End Date	Jan 2, 2019 5:00:00 PM EST

Addendum # 4

New Documents	P11889.ADDENDUM 4.pdf		
Previous Bid Allowance Amount	\$42,000.00	New Bid Allowance Amount	\$47,000.00

12100-693--01-01 - Base Bid Total: Mobilization and Demobilization Item Lot Description Base Bid Total Quantity 1 lump sum **Unit Price Delivery Location** City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Description Mobilization and Demobilization Item 12100-693--01-02 - Base Bid Total: Maintenance of Traffic (MOT) Lot Description Base Bid Total Quantity 1 lump sum **Unit Price Delivery Location** City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Description Maintenance of Traffic (MOT) 12100-693--01-03 - Base Bid Total: Demolition, disposal, and abandonment of Pump Station Item A-44 Lot Description Base Bid Total Quantity 1 lump sum **Unit Price Delivery Location** City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1 Description All work for the demolition, disposal, and abandonment in place of Pump Station A-44, including removal and disposal of all equipment, including pumping, mechanical, electrical, ventilation, miscellaneous metal work. Removal of water supply and electrical services. Partial demolition of concrete structures below ground level, backfilling, grading, all site and roadway restoration. 12100-693--01-04 - Base Bid Total: Demolition, disposal, and abandonment of Pump Station Item A-97 Base Bid Total Lot Description Quantity 1 lump sum

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Unit Price

Delivery Location

City of Fort Lauderdale

See ITB Specifications
See ITB Specifications
Fort Lauderdale FL 33301

Qty 1

Description

All work for the demolition, disposal, and abandonment in place of Pump Station A-97, including removal and disposal of all equipment, including pumping, mechanical, electrical, ventilation, miscellaneous metal work. Removal of water supply and electrical services. Partial demolition of metal and concrete structures below ground level, backfilling, grading, all site, landscaping, parking lot and roadway restoration.

Item

12100-693--01-05 - Base Bid Total: Demolition, disposal, and abandonment of Pump Station

C-3

Lot Description

Base Bid Total

Quantity 1 lump sum

Unit Price | City of Fort Lauderdale

See ITB Specifications
See ITB Specifications
Fort Lauderdale FL 33301

Qty 1

Description

All work for the demolition, disposal, and abandonment in place of Pump Station C-3, including removal and disposal of all equipment, including pumping, mechanical, electrical, ventilation, miscellaneous metal work. Removal of water supply and electrical services. Partial demolition of concrete structures below ground level, backfilling, grading, all site and roadway restoration.

Item 12100-693--01-06 - Base Bid Total: 8-inch diameter PVC Sanitary Sewer laterals

Lot Description Base Bid Total

Quantity 3 each

Unit Price

Delivery Location City of Fort Lauderdale

See ITB Specifications
See ITB Specifications
Fort Lauderdale FL 33301

Qty 3

Description

Furnish and install 8-inch diameter PVC SDR 35 sanitary sewer laterals, including excavations, connections to mainline gravity sewer and building sewer lines, station bypass, cleanouts, all site and roadway restoration.

Item 12100-693--01-07 - Base Bid Total: Landscape Installation

Lot Description Base Bid Total Quantity 1 lump sum

Unit Price

Delivery Location City of Fort Lauderdale

See ITB Specifications
See ITB Specifications
Fort Lauderdale FL 33301

Qty 1

Description

Furnish and install landscape plan for Station A-44, as shown on drawing Sheet LO1, including tree removals and relocation, grading, new plant materials, bracing, watering, fertilizing, and maintenance.

CITY OF FORT LAUDERDALE CONTRACT AND SPECIFICATIONS PACKAGE

BID NO. 12100-693

PROJECT NO. 11889

DEMOLITION AND ABANDONMENT OF PUMP STATIONS A-44, A-97 AND

C-3



Issued on Behalf of: The Public Works Department 100 North Andrews Avenue Fort Lauderdale, Florida 33301

STAN EDWARDS, P.E. PROJECT MANAGER II

MAUREEN LEWIS, MBA, CPPB PROCUREMENT SPECIALIST II

Telephone: (954) 828-5239 E-mail: maureenl@fortlauderdale.gov

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Appendix A - Pump Station A-97, Asbestos and Lead Report
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DRAWINGS BOUND SEPARATELY

Note: The following documents are available electronically for completion and documents <u>must</u> be returned with your bid along with your bid security, proof of insurance, and proof of required licenses/certifications.

CITB Prime Contractor ID Form

CITB Questionnaire Sheets

CITB Local Business Price Preference Certification

CITB Trench Safety

CITB Non-Collusion Statement

Non-Discrimination Certification

CITB Contract Payment Method

CITB Construction Bid Certification

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INVITATION TO BID (continued)

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

INVITATION TO BID (continued)

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

INSTRUCTIONS TO BIDDERS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<u>BID PROTEST PROCEDURE</u>: Any proposer or bidder who is not recommended for award of a contract and who alleges a failure by the City to follow the City's procurement ordinance or any applicable law may protest to the Procurement Division – Deputy Director of Finance, by delivering a letter of protest within five (5) days after a Notice of Intent to award is posted on the City's website at the following link: http://www.fortlauderdale.gov/departments/finance/procurement-services/notices-of-intent-to-award. The complete protest ordinance may be found on the City's website at the following link: https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeld=COOR_CH2AD_ARTVFI_DIV2PR_S2-182DIREPR

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

<u>CONTRACT</u> - The bidder to whom award is made shall execute a written contract to do the work and maintain the same in good repair until final acceptance by the proper authorities, and shall furnish good and sufficient bonds as specified within ten (10) days after receiving such contract for execution. If the bidder to whom the first award is made fails to enter into a contract as provided, the award may be annulled and the contract let to the next lowest bidder who is reliable, responsible, and responsive

in the opinion of the City Commission, and that bidder shall fulfill every stipulation and obligation as if such bidder were the original party to whom award was made.

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

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

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

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

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

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

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

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

of account, supporting documents and papers deemed necessary by the City to assure compliance with the contract provisions.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<u>LOBBYING ACTIVITIES</u> - **ALL CONTRACTORS PLEASE NOTE**: Any contractor submitting a response to this solicitation must comply, if applicable, with City of Fort Lauderdale Ordinance No. C-00-27 & Resolution No. 07-101, Lobbying Activities. Copies of Ordinance No., C-00-27, and Resolution No. 07-101, may be obtained from the City Clerk's Office on the 7th Floor of City Hall, 100 N. Andrews Avenue, Fort Lauderdale, Florida 33301. The ordinance may also be viewed on the City's website at http://www.fortlauderdale.gov/clerk/LobbyistDocs/lobbyist_ordinance.pdf.

SPECIAL CONDITIONS

01. PURPOSE

The City of Fort Lauderdale, Florida (City) is seeking bids from qualified bidders, hereinafter referred to as the Contractor, to provide demolition and abandonment services for the City's Public Works Department, in accordance with the terms, conditions, and specifications contained in this Invitation To Bid (ITB).

02. TRANSACTION FEES

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

03. SUBMISSION OF BIDS

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

04. INFORMATION OR CLARIFICATION

For information concerning procedures for responding to this solicitation, contact **Maureen Lewis**, **Procurement Specialist II**, at (954) 828-5239 or email at maureenl@fortlauderdale.gov. Such contact shall be for clarification purposes only.

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

05. CONTRACT TIME

- 5.1 The Contractor recognizes that TIME IS OF THE ESSENCE. The Work shall commence within 21 calendar days of the date of the Notice to Proceed.
- 5.2 The Work shall be Substantially Completed within 93 calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.
- 5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within 124 calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

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

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

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

06. BID SECURITY

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

07. REQUIRED LICENSES/CERTIFICATIONS

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

Broward County Engineering Contractor's license and/or appropriate license issued by the State of Florida.

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

08. SPECIFIC EXPERIENCE REQUIRED

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

The contractor shall have at least five (5) years previous construction experience in sewer collection systems infrastructure, in the State of Florida. Bidder shall submit proof of construction experience of a minimum of three (3) projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address.

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

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

09. BID ALLOWANCE

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

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

Allowances	\$
Permit fees & FPL Electrical Service allowance	12,000
Landscape allowance	5,000
Additional Work	25,000
TOTAL	42,000

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

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

10.1 General Information

As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, the Contractor, at the Contractor's sole expense, shall provide insurance of such

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

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

The following insurance policies and coverages are required:

10.2 <u>Commercial General Liability</u>

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

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

Policy must include coverage for Contractual Liability and Independent Contractors.

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

10.3 <u>Business Automobile Liability</u>

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

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

10.4 Workers' Compensation and Employer's Liability

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

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

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

10.5 <u>Disposal Coverage</u>

The Contractor shall designate the disposal site and furnish a Certificate of Insurance from the disposal facility for Environmental Impairment Liability Insurance, covering liability for sudden and accidental occurrences in an amount not less than \$1,000,000 per claim and shall include liability for non-sudden occurrences in an amount not less than \$1,000,000 per claim.

10.6 Broward County Requirements

See Exhibit D, Appendices, for Broward County Insurance Requirements.

Insurance Certificate Requirements

- a. The Contractor shall provide the City with valid Certificates of Insurance (binders are unacceptable) no later than thirty (30) days prior to the start of work contemplated in this Agreement.
- b. The Contractor shall provide to the City a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.
- c. In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the Contractor to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.
- d. In the event the Agreement term goes beyond the expiration date of the insurance policy, the Contractor shall provide the City with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance

- e. currently in effect. The City reserves the right to suspend the Agreement until this requirement is met.
- f. The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
- g. The City **AND** Broward County shall be named as an Additional Insured on all liability policies, with the exception of Workers' Compensation.
- h. The City shall be granted a Waiver of Subrogation on the Contractor's Workers' Compensation insurance policy.
- i. The title of the Agreement, Bid/Contract number, event dates, or other identifying reference must be listed on the Certificate of Insurance.

The Certificate Holder should read as follows:

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

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

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

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

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

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

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

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

NOTE: CITY PROJECT NUMBER AND NAME MUST APPEAR ON EACH CERTIFICATE, AND THE <u>CITY OF FORT LAUDERDALE AND BROWARD COUNTY</u> MUST BE NAMED ON THE CERTIFICATE AS AN "ADDITIONAL INSURED" ON ALL <u>LIABILITY POLICIES</u>, WITH THE EXCEPTION OF WORKERS' COMPENSATION.

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

11.	PERFORMANCE AND PAYMENT BOND:	100%
	Number of awards anticipated: <u>1</u>	

12. CITY PROJECT MANAGER

The Project Manager is hereby designated by the City as <u>Stan Edwards</u>, whose address is <u>100 North Andrews</u>, <u>4th Floor</u>, <u>Fort Lauderdale</u>, <u>FL 33301</u>, <u>telephone number: (954) 828-5071</u>, <u>and email address is sedwards@fortlauderdale.gov</u>. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement.

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

Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the City the sum of **Three Hundred Dollars** (\$300.00) for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay is caused by the Contractor. (See Article 16, Liquidated Damages Clause, of the Contract)

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

The City has implemented a Purchasing Card (P-Card) Program utilizing both VISA and MASTERCARD networks. Purchases from this contract will be made utilizing the City's Purchasing Card. Contractor will receive payment from the purchasing card in the same manner as other credit card purchases. Accordingly, bidders must presently have the

ability to accept these credit cards or take whatever steps necessary to implement the ability before the start of the contract term, or contract award by the City. The City reserves the right to revise this program as necessary.

15. WORK SCHEDULE (including overtime hours):

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

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

16.	INSPECTION OVERTIME COST:	To be decided

17. COORDINATION

Contractor is required to coordinate his work with the affected property owners at each of the pump station sites, prior to commencing work, and in accordance with the Project's plans and specifications.

CITY OF FORT LAUDERDALE CONSTRUCTION AGREEMENT

TI	HIS	AGREE	MENT	made	and	entered	int	o thi	s		day	of
			_, <u>20</u>	, by an	d betw	een the	City	of Fo	rt Laud	erdale,	a Flo	rida
municipa	al co	rporation	(City) a	nd						, (C	ontrac	tor),
(parties)	• •											
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NOW, THEREFORE, the City and the Contractor, in consideration of the mutual covenants and conditions contained herein and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, agree as follows:

ARTICLE 1 – DEFINITIONS

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

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

- 1.7 <u>Change Order</u> A change order is defined as a written order to a contractor approved by the City, authorizing a revision of an underlying agreement between the City and a contractor that is directly related to the original scope of work or an adjustment in the original contract price or the contract time directly related to the original scope of work, issued on or after the effective date of the contract.
- 1.8 <u>City</u> The City of Fort Lauderdale, Florida, including but not limited to its employees, agents, officials, representatives, contractors, subcontractors, volunteers, successors and assigns, with whom the Contractor has entered into the Agreement and for whom the Work is to be provided.
- 1.9 <u>Contract Documents</u> The Contract Documents shall consist of this Agreement, Exhibits to this Agreement, Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance, Notice of Award and Notice to Proceed, General Conditions as amended by the Special Conditions, Technical Specifications, Plans/Drawings, Addenda, Bid Form and supplement Affidavits and Agreements, all applicable provisions of State and Federal Law and any modification, including Change Orders or written amendments duly delivered after execution of Agreement, Invitation to Bid, Instructions to Bidders and Bid Bond, Contractor's response to the City's Invitation to Bid, Schedule of Completion, Schedule of Values, all amendments, modifications and supplements, change orders and work directive changes issued on or after the Effective Date of the Agreement, as well as any additional documents that are required to be submitted under the Agreement.

Permits on file with the City and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement. A copy of all permits shall be given to the City for inclusion in the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

- 1.10 <u>Contract Price</u> The monies payable to the Contractor by the City under the Contract Documents and in accordance with the line item unit prices listed in the Bid.
- 1.11 <u>Contract Time</u> The number of calendar days stated in the Agreement for the completion of the Work. The dates on which the work shall be started and shall be completed as stated in the Notice to Proceed.
- 1.12 <u>Contractor</u> The person, firm, company, or corporation with whom the City has entered into the Agreement, including but not limited to its employees, agents, representatives, contractors, subcontractors, their subcontractors and their other successors and assigns.
- 1.13 Day A calendar day of twenty-four (24) hours ending at midnight.
- 1.14 <u>Defective</u> An adjective which when modifying the word "Work" refers to work that is unsatisfactory, faulty, or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to the Project Manager's recommendation of final payment.

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

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

ARTICLE 2 - SCOPE OF WORK

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

DEMOLITION AND ABANDANMONT OF PUMP STATIONS A-44, A-97 and C-3 ITB 12100-683 PROJECT 11889

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

PROJECT DESCRIPTION

This project is located at three (3) pump station sites in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, removal and disposal of all mechanical, electrical, ventilation equipment at the stations, cut and backfill stations below ground, and all site restoration including grading, sidewalks, curb, driveways, asphalt pavement, pavement markings, landscape, sod, etc..

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

ARTICLE 3 - PROJECT MANAGER

3.1 The Project Manager is hereby designated by the City as <u>Stan Edwards</u>, whose address is <u>100 N. Andrews Avenue</u>, <u>4th Floor</u>, <u>Fort Lauderdale</u>, <u>FL 33301</u>, telephone number: <u>(954) 828-5071</u>, and email address is <u>sedwards@fortlauderdale.gov</u>. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement.

ARTICLE 4 – CONTRACT DOCUMENTS

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

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

4.4	Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance.
4.5	Notice of Award and Notice to Proceed.
4.6	General Conditions as amended by the Special Conditions.
4.7	Technical Specifications.
4.8	Plans/Drawings.
4.9	Addenda number through, inclusive.
4.10	Bid Form and supplement Affidavits and Agreements.
4.11	All applicable provisions of State and Federal Law.
4.12	Invitation to Bid No.,, Instructions to Bidders, and Bid Bond.
4.13	Contractor's response to the City's Invitation to Bid No.,, dated
4.14	Schedule of Completion and Schedule of Values.
4.15	All amendments, modifications and supplements, change orders and work directive changes issued on or after the Effective Date of the Agreement.
4.16	Any additional documents that are required to be submitted under the Agreement.
4.17	Permits on file with the City and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement. A copy of all permits shall be given to the City for inclusion in the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.
	event of any conflict between the documents or any ambiguity or missing specification truction, the following priority is established:
	a. Specific direction from the City Manager (or designee).
	b. Approved change orders, addenda or amendments.
C	C Specifications (quality) and Drawings (location and quantity).
	d. Supplemental conditions or special terms.
	e. General Terms and Conditions.
	f. This Agreement dated, and any attachments.
	g. Invitation to Bid No.,, and the specifications prepared by the City.

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

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

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

ARTICLE 5 - CONTRACT TIME

- 5.1 The Contractor recognizes that **TIME IS OF THE ESSENCE**. The Work shall commence within **21** calendar days of the date of the Notice to Proceed.
- 5.2 The Work shall be Substantially Completed within <u>93</u> calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.
- 5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within <u>124</u> calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

ARTICLE 6 – CONTRACT PRICE

- 6.1 City shall pay Contractor for performance of the Work in accordance with Article 7, subject to additions and deletions by Change Order, as provided for in this Agreement.
- 6.2 The parties expressly agree that the Contract Price, which shall not exceed the amount of \$_______, constitutes the total maximum compensation payable to Contractor for performing the Work, plus any Work done pursuant to a Change Order. The Contract Price is in accordance with the line item unit prices listed in the Bid. Line items are based on a unit price cost multiplied by a defined quantity. Any

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

ARTICLE 7 – PAYMENT

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

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

- 7.6 The City shall make payment to the Contractor in accordance with the Florida Prompt Payment Act, Section 218.70, Florida Statutes.
- 7.7 The City shall make payment to the Contractor through utilization of the City's P-Card Program.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

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

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

- 8.6 Contractor has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.
- 8.7 Contractor has given City written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution by City is acceptable to the Contractor.

8.8 Labor

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

8.9 Materials.

- The Contractor shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of Work.
- 8.9.2 All material and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. Suppliers shall be selected and paid by the Contractor; the City reserves the right to approve all suppliers and materials.
- 8.10 <u>Work Hours:</u> Except in connection with the safety or protection of persons, or the Work, or property at the site or adjacent thereto, and except as otherwise indicated in

the Supplementary Conditions, all work at the site shall be performed during regular working hours between 7 a.m. and 6:00 p.m., Monday through Friday. The Contractor will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday (designated by the City of Fort Lauderdale) without the Project Manager's written consent at least seventy-two (72) hours in advance of starting such work. If the Project Manager permits overtime work, the Contractor shall pay for the additional charges to the City with respect to such overtime work. Such additional charges shall be a subsidiary obligation of the Contractor and no extra payment shall be made to the Contractor for overtime work. It shall be noted that the City's Inspector work hours are from 8:00 a.m. to 4:30 p.m. and any work requiring inspection oversight being performed outside of this timeframe shall be paid for by the Contractor as Inspector overtime. The cost to the Contractor to reimburse the City for overtime inspection is established at direct-labor and overtime costs for each person or inspector required. Incidental overtime costs for engineering, testing and other related services will also be charged to the Contractor at the actual rate accrued.

- 8.11 Patent Fee and Royalties: The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work, or any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. The Contractor hereby expressly binds himself or itself to indemnify and save harmless the City from all such claims and fees and from any and all suits and action of every name and description that may be brought against City on account of any such claims, fees, royalties, or costs for any such invention or patent, and from any and all suits or actions that may be brought against said City for the infringement of any and all patents or patent rights claimed by any person, firm corporation or other entity.
- 8.12 Permits: The Contractor shall obtain and pay for all permits and licenses. There shall be no allowance for Contractor markup, overhead or profit for permits and licenses. The Contractor shall pay all government charges which are applicable at the time of opening of proposals. It shall be the responsibility of the Contractor to secure and pay for all necessary licenses and permits of a temporary nature necessary for the prosecution of Work.
- 8.13 <u>Law and Regulations</u>: The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the Work. If the Contractor observes that the specifications or plans are at variance therewith, the Contractor shall give the Project Manager prompt written notice thereof, and any necessary changes shall be adjusted by any appropriate modifications. If the Contractor performs any work knowing or having reason to know that it is contrary to such laws, ordinances, rules and regulations, and without such notice to the Project Manager, the Contractor shall bear all costs arising therefrom; however, it shall not be the Contractor's primary responsibility to make certain that the specifications and plans are in accordance with such laws, ordinances, rules and regulations.
- 8.14 <u>Taxes:</u> The Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the laws of the City of Fort Lauderdale, County of Broward, State of Florida.
- 8.15 <u>Contractor Use of Premises:</u> The Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted

by law, ordinances, permits and/or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

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

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

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

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

- 8.16 <u>Project Coordination:</u> The Contractor shall provide for the complete coordination of the construction effort. This shall include, but not necessarily be limited to, coordination of the following:
 - 8.16.1 Flow of material and equipment from suppliers.
 - 8.16.2 The interrelated work with affected utility companies.
 - 8.16.3 The interrelated work with the City where tie-ins to existing facilities are required.
 - 8.16.4 The effort of independent testing agencies.
 - 8.16.5 Notice to affected property owners as may be directed by the Project Manager.
- 8.17 Project Record Documents and Final As-Builts (Record Drawings): Contractor shall be responsible for maintaining up-to-date redline as-built drawings, on site, at all times during construction. All as-built information shall be surveyed and verified by a professional land surveyor registered in the State of Florida. Contractor shall provide the City with a minimum of three (3) sets of signed and sealed record drawings (Final

As-Builts) and a CD of the electronic drawings files created in AutoCad 2014 or later. All costs associated with survey work required for construction layout and as-built preparation shall be the responsibility of the Contractor.

8.18 Safety and Protection:

- 8.18.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 8.18.1.1 All employees working on the project and other persons who may be affected thereby.
 - 8.18.1.2 All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site.
 - 8.18.1.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- 8.18.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and utilities when execution of the Work may affect them at least seventy-two (72) hours in advance (unless otherwise required). All damage, injury or loss to any property caused, directly or indirectly, in whole or in part by the Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and accepted by the City.
- 8.19 <u>Emergencies</u>: In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the City is obligated to act to prevent threatened damage injury or loss. The Contractor shall give the Project Manager prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.
- 8.20 Risk of Loss: The risk of loss, injury or destruction shall be on the Contractor until acceptance of the Work by the City. Title to the Work shall pass to the City upon acceptance of the Work by the City.
- 8.21 Environmental: The Contractor has fully inspected the Premises and agrees, except as to the presence of any asbestos, to accept the Premises in an "as is" physical condition, without representation or warranty by the City of any kind, including, without limitation, any and all existing environmental claims or obligations that may arise from the presence of any "contamination" on, in or about the Premises. Further, Contractor and all entitles claiming by, through or under the Contractor, releases and discharges

the City, from any claim, demand, or cause of action arising out of or relating to the Contractor's use, handling, storage, release, discharge, treatment, removal, transport, decontamination, cleanup, disposal and/or presence of any hazardous substances including asbestos on, under, from or about the Premises. The Contractor shall have no liability for any pre-existing claims or "contamination" on the Premises.

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

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

For other and additional consideration, the Contractor hereby agrees, at its sole cost and expense, to indemnify and protect, defend, and hold harmless the City and its respective employees, agents, officials, officers, representatives, contractors and subcontractors, successors, and assigns (hereafter the "City") from and against any and all claims, demands, losses, damages, costs, expenses, including but not limited to mitigation, restoration, and natural restoration expenses, liabilities, assessments, fines, penalties charges, administrative and judicial proceedings and orders, judgments, causes of action, in law or in equity, remedial action requirements and/or enforcement actions of any kind (including, without limitation, attorneys' fees and costs) directly or indirectly arising out of or attributable to, in whole or in part, the Contractor's use, handling, storage, release, threatened release, discharge, treatment, removal, transport, decontamination, cleanup, disposal and/or presence of a Hazardous Substance (excluding asbestos) on, under, from, to or about the Premises or any other activity carried on or undertaken on or off the Premises by the Contractor or its employees, agents or subcontractors, in connection with the use, handling, storage, release, threatened release, discharge, treatment, mitigation, natural resource restoration, removal, transport, decontamination, cleanup, disposal and/or presence or any Hazardous Substance including asbestos located, transported, or present on, undue from, to, or about the Premises. This indemnity is intended to be operable under 42 U.S.C. sections 9607, as amended, and any successor section.

The scope of the indemnity obligations includes, but is not limited to: (a) all consequential damages; (b) the cost of any required or necessary repair, cleanup, or detoxification of the applicable real estate and the preparation and implementation of any closure, remedial or other required plan, including without limitation; (i) the costs of removal or remedial action incurred by the United States government or the State of Florida or response costs incurred by any other person, or damages from injury to destruction of, or loss of, natural resources, including the cost of assessing such injury, destruction, or loss, incurred pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, as amended; (ii) the clean-up costs, fines, damages, or penalties incurred pursuant to any applicable provisions of Florida law;

- and (iii) the cost and expenses of abatement, correction or cleanup, fines, damages, response costs, or penalties which arise from the provisions of any other statute, law, regulation, code ordinance, or legal requirement state or federal; and (c) liability for personal injury or property damage arising under any statutory or common law tort theory, including damages assessed for the maintenance of a public private nuisance, response costs, or for the carrying on of an abnormally dangerous activity.
- 8.22 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any other reason or allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the City, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the City and the Contractor.
- 8.23 No Liens: If any Subcontractor, supplier, laborer, or materialmen of Contractor or any other person directly or indirectly acting for or through Contractor files or attempts to file a mechanic's or construction lien against the real property on which the work is performed or any part or against any personal property or improvements or claim against any monies due or to become due from the City to Contractor or from Contractor to a Subcontractor, for or on account of any work, labor, services, material, equipment, or other items furnished in connection with the Work or any Change Order, Contractor agrees to satisfy, remove, or discharge such lien or claim at its own expense by bond, payment, or otherwise within twenty (20) days of the filing or from receipt of written notice from the City.

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

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

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

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

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

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

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

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

U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

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

ARTICLE 9 - CITY'S RESPONSIBILITIES

- 9.1 The City shall furnish the data required of the City under the Contract Documents promptly and shall make payments to the Contractor promptly after they are due as provided in Article 7.
- 9.2 The City's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in the Contract Documents.
- 9.3 Technical Clarifications and Interpretations:
 - 9.3.1 The City shall issue, with reasonable promptness, such written clarifications or interpretations of the Contract Documents as it may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. Should the Contractor fail to request interpretation of questionable items in the Contract Documents, the City shall not entertain any excuse for failure to execute the Work in a satisfactory manner.
 - 9.3.2 The City shall interpret and decide matters concerning performance under the requirements of the Contract Documents, and shall make decisions on all claims, disputes or other matters in question. Written notice of each claim, dispute or other matter will be delivered by claimant to the other Party but in no event later than five (5) days after the occurrence of event, and written supporting date will be submitted to the other Party within five (5) days after such occurrence. All written decisions of the City on any claim or dispute will be final and binding.
- 9.4 The Contractor shall perform all Work to the reasonable satisfaction of the City in accordance with the Contract Documents. In cases of disagreement or ambiguity, the City shall decide all questions, difficulties, and disputes of whatever nature, which may arise under or by reason of this Agreement or the quality, amount and value of the Work, and the City's decisions on all claims, questions and determination are final.

ARTICLE 10 – BONDS AND INSURANCE

10.1 <u>Public Construction and Other Bonds:</u> The Contractor shall furnish Public Construction or Performance and Payment Bonds ("Bond"), each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all

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

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

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

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

10.3 Insurance

10.3 1 As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, the Contractor, at the Contractor's sole expense, shall provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of the Contractor. The Contractor shall provide the City a certificate of insurance evidencing such coverage. The Contractor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under this Agreement. All insurance policies shall be from insurers authorized to write insurance policies in the State of Florida and that possess an A.M. Best rating of A-, VII or better. All insurance policies are subject to approval by the City's Risk Manager.

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

The following insurance policies and coverages are required:

10.3.2 Commercial General Liability

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

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

Policy must include coverage for Contractual Liability and Independent Contractors.

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

10.3.3 Business Automobile Liability

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

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

10.3.4 Workers' Compensation and Employer's Liability

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

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

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

10.3.5 <u>Disposal Coverage</u>

The Contractor shall designate the disposal site and furnish a Certificate of Insurance from the disposal facility for Environmental Impairment Liability Insurance, covering liability for sudden and accidental occurrences in an amount not less than \$1,000,000 per claim and shall include liability for non-sudden occurrences in an amount not less than \$1,000,000 per claim.

10.3.6 Broward County Requirements

See Exhibit D, Appendices, for Broward County Insurance Requirements.

<u>Insurance Certificate Requirements</u>

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

The Certificate Holder should read as follows:

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

The Contractor has the sole responsibility for the payment of all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or

coverage exclusion or limitation. Any costs for adding the City <u>AND</u> Broward County as an Additional Insured shall be at the Contractor's expense.

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

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

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

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

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

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

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

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

ARTICLE 11- WARRANTY AND GUARANTEE, TESTS AND INSPECTIONS, CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

11.1 <u>Warranty:</u> The Contractor warrants and guarantees to the City that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to the Contractor. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this Article.

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

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Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection testing and reconstruction if he makes a claim therefore as provided in Articles 14 and 15.

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

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

- 11.7 Acceptance of Defective Work, Deductions: If, instead of requiring correction or removal and replacement of defective Work, the City, at the city's sole option, prefers to accept it, the City may do so. In such a case, if acceptance occurs prior to the Project Manager's recommendation of final payments, a Change Order shall be issued incorporating the necessary revisions in the Contracts Documents, including appropriate reduction in the Contract Price; or if the acceptance occurs after such recommendation, an appropriate amount shall be paid by the Contractor to the City.
- 11.8 City May Correct Defective Work: If the Contractor fails within a reasonable time after written notice of the Project Manager to proceed to correct defective Work or to remove and replace rejected Work as required by the Project Manager in accordance with Paragraph 11.5, or if the Contractor fails to perform the Work in accordance with the Contract Documents, the City may, after seven (7) days written notice to the Contractor, correct and remedy any such deficiency. In exercising its rights under this paragraph, the City shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the City may exclude the Contractor from all or part of the site, take possession of all or part of the Work, suspend the Contractor's services related thereto and take possession of the Contractor's tools, construction equipment

and materials stored at the site or elsewhere. The Contractor shall allow the City's representative agents and employees such access to the site as may be necessary to enable the City to exercise its rights under this paragraph. All direct and indirect costs of the City in exercising such rights shall be charged against the Contractor in an amount verified by the Project Manager, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of the Contractor's defective Work. The Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the City of the City's right hereunder.

ARTICLE 12 – INDEMNIFICATION

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

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

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

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

ARTICLE 13 – CHANGES IN THE WORK

13.1 Without invalidating this Agreement, the City may, at any time or from time to time order additions, deletions or revisions in the Work through the issuance of Change Orders. Upon receipt of a Change Order, the Contractor shall proceed with the Work involved. All Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Article 14 or Article 15 on the basis of a claim made by either Party.

- 13.2 The Project Manager may authorize minor changes in the work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. Such changes must be in writing and signed by the City and the Contractor.
- 13.3 If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be the Contractor's responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. The Contractor shall furnish proof of such adjustment to the City.

ARTICLE 14 – CHANGE OF CONTRACT PRICE

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

- 14.1 Cost of the Work: The term "Cost of the Work" means the sum of all direct costs necessarily incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by the City, these costs shall be in amounts no higher than those prevailing in the City and shall include only the following items and shall not include any of the costs itemized in Paragraph 14.3:
 - 14.1.1 Payroll costs for employees in the direct employ of the Contractor in the performance of the Work under schedules of job classifications agreed upon by the City and the Contractor. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus and cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, worker's compensation, health and retirement benefits, bonuses, sick leave, vacation and applicable holiday pay.
 - 14.1.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage, and required suppliers and field services. All cash discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to the City, and the Contractor shall make provisions so that they may be obtained.
 - 14.1.3 Supplemental costs including the following:
 - 4.1.3.1 Cost, including transportation and maintenance of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work.
 - 14.1.3.2 Rentals of all construction equipment and machinery and the parts whether rented from the Contractor or others in accordance with rental agreements approved by the City, and the costs of transporting, loading, unloading, installation, dismantling and removal. The rental of any such equipment, machinery or parts shall cease when the use is no longer necessary for the Work.

- 14.1.3.3 Sales, consumer, use or similar taxes related to the Work and for which the Contractor is liable, imposed by laws and regulations.
- 14.1.3.4 Royalty payments and fees for permits and licenses.
- 14.1.3.5 The cost of utilities, fuel and sanitary facilities at the Work site.
- 14.1.3.6 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.
- 14.1.3.7 Cost of premiums for additional bonds and insurance required because of changes in the Work.
- 14.2 The Contract Price may only be increased by a Change Order when Work is modified in accordance with Article 13 and approved by the City in writing. Any claim for an increase in the Contract Price resulting from a Change Order shall be based on written notice delivered to the Project Manager within ten (10) days of the occurrence of the Change Order giving rise to the claim. Notice of the amount of the claim with supporting data shall be included in the Change Order and delivered within twenty (20) days of such occurrence unless Project Manager allows an additional period of time to ascertain accurate cost data. Any change in the Contract Price resulting from any such claim shall be incorporated in the Change Order. IT IS EXPRESSLY AND SPECIFICALLY AGREED THAT ANY AND ALL CLAIMS FOR CHANGES TO THE CONTRACT PRICE SHALL BE WAIVED IF NOT SUBMITTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.
- 14.3 <u>Not Included in the Cost of the Work.</u> The term "cost of the Work" shall not include any of the following:
 - 14.3.1 Payroll costs and other compensation of the Contractor's officers executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditor, accountants, purchasing and contracting agents, expediters, timekeepers, clerks and other personnel employed by the Contractor whether at the site or in the Contractor's principal or branch office for general administration of the work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 14.1.1, all of which are to be considered administrative costs covered by the Contractor's fee.
 - 14.3.2 Expenses of the Contractor's principal and branch offices other than the Contractor's office at the site.
 - 14.3.3 Any part of the Contractor's capital expenses, including interest on the Contractor's capital employed for the Work and charges against the Contractor for delinquent payments.
 - 14.3.4 Cost of premiums for all bonds and for all insurance whether or not the Contractor is required by the Contract Documents to purchase and maintain the same.

- 14.3.5 Costs due to the negligence of the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.
- 14.3.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 14.1
- 14.4 <u>Basis of Compensation:</u> The Contractor's compensation, allowed to the Contractor for overhead and profit, shall be determined as follows:
 - 14.4.1 A mutually acceptable negotiated fee:
 - 14.4.1.1 For costs incurred under Paragraphs 14.1.1 and 14.1.2, the Contractor's fee shall not exceed five percent (5%).
 - 14.4.1.2 No fee shall be payable on the basis of costs itemized under Paragraphs 14.1.3.1, 14.1.3.2, 14.1.3.3, 14.1.3.4, 14.1.3.5, 14.1.3.6, 14.1.3.7, 14.3.1, 14.3.2, 14.3.3, 14.3.4, 14.3.5 and 14.3.6.
 - 14.4.1.3 The amount of credit to be allowed by the Contractor to the City for any such change which results in a net decrease plus a deduction in the Contractor's fee by an amount equal to five percent (5%) for the net decrease.
 - 14.4.1.4 When both additions and credits are involved in any one change the combined overhead and profit shall be figured on the basis of net increase if any, however, not to exceed five percent (5%) of the agreed compensation. Profit will not be paid on any Work not performed.
- 14.5 Cost Breakdown Required: Whenever the cost of any Work is to be determined pursuant to this Article, the Contractor will submit in form acceptable to the City an itemized cost breakdown together with supporting documentation. Whenever a change in the Work is to be based upon mutual acceptance of a lump sum, whether the amount is an addition, credit, or no-charge-in-cost, the Contractor shall submit an estimate substantiated by a complete itemized breakdown:
 - 14.5.1 The breakdown shall list quantities and unit prices for materials, labor, equipment and other items of cost.
 - 14.5.2 Whenever a change involves the Contractor and one (1) or more subcontractors and the change is an increase in the agreed compensation, the overhead and profit percentage for the Contractor and each subcontractor shall be itemized separately.
- 14.6 <u>Time for the City to Approve Extra Work:</u> Any Extra Work in an amount up to and not exceeding a cumulative amount of \$25,000 for a specific project can be approved by the City Manager and shall require a written Change Order proposal to be submitted to the Public Works Director for submittal and approval by the City Manager. Extra Work exceeding the cumulative amount of \$25,000 for a specific project must be approved

by the City Commission and a written Change Order proposal must be submitted to the Public Works Director for submittal and approval by the City Manager and City Commission. No financial or time claim for delay to the project resulting from the Change Order approval process outlined above under Section 14.6 will be allowed.

ARTICLE 15 – CHANGE OF THE CONTRACT TIME

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

ARTICLE 16 – LIQUIDATED DAMAGES

16.1 Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the City the sum of **Three Hundred Dollars** (\$300,00) for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay is caused by the Contractor. Should an act of God or the acts or omissions of the City, its agents or representatives, in derogation to the terms of this Agreement cause the delay, the Contractor shall not be responsible for the delay nor liquidated damages. Liquidated damages are fixed and agreed upon between the Parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by the City as a consequence of such delay and both parties desiring to obviate any question of dispute concerning the amount of damages and the cost and effect of the failure of the Contractor to complete the Work on time. Liquidated damages shall apply separately to each portion of the Work for which a time of completion is given. The City shall

have the right to deduct from or retain any compensation which may be due or which may become due and payable to the Contractor the amount of liquidated damages, and if the amount retained by the City is insufficient to pay in full such liquidated damages, the Contractor shall pay all liquidated damages in full. The Contractor shall be responsible for reimbursing the City, in addition to liquidated damages or other damages for delay, for all costs of engineering, architectural fees, and inspection and other costs incurred in administering the construction of the Project beyond the completion date specified or beyond an approved extension of time granted to the Contractor whichever is later. Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the Contractor shall not give rise to a claim by Contractor for damages for increase in material and/or labor costs. Such entities, contractors and subcontractors include, but are not limited to, the City's contractors and subcontractors, Florida Power and Light Company, AT&T, and Florida East Coast Railway, LLC.

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

ARTICLE 17 - SUSPENSION OF WORK AND TERMINATION

- 17.1 <u>City May Suspend Work:</u> The City may, at any time and without cause, suspend the Work or any portion of the Work for a period of not more than ninety (90) days by notice in writing to the Contractor which shall fix the date on which Work shall be resumed. The Contractor shall resume the Work on the date fixed. The Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension, if the Contractor makes a claim as provided in Articles 14 and 15.
- 17.2 <u>City's Right to Terminate Contract:</u> The City may terminate this Agreement upon fifteen (15) calendar days' written notice upon the occurrence of any one or more of the following events:
 - 17.2.1 If the Contractor commences a voluntary case or a petition is filed against the Contractor, under any chapter of the Bankruptcy Code, or if the Contractor takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency.
 - 17.2.2 If the Contractor makes a general assignment for the benefit of creditors.

- 17.2.3 If a trustee, receiver, custodian or agent of the Contractor is appointed under applicable law or under Contract, whose appointment or authority to take charge of property of the Contractor is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of the Contractor's creditors.
- 17.2.4 If Contractor fails to begin the Work within fifteen (15) calendar days after the Project Initiation Date, or fails to perform the Work with sufficient workers and equipment or with sufficient materials to ensure the prompt completion of the Work, or shall perform the Work unsuitably, or cause it to be rejected as defective and unsuitable, or shall discontinue the prosecution of the Work pursuant to the accepted schedule or if Contractor shall fail to perform any material term set forth in the Contract Documents, or from any other cause whatsoever shall not carry on the Work in an acceptable manner, Project Manager may give notice in writing to Contractor and its Surety of such delay, neglect or default, specifying the same.
- 17.2.5 If the Contractor repeatedly fails to make prompt payments to subcontractors or for labor, material or equipment.
- 17.2.6 If the Contractor repeatedly disregards proper safety procedures.
- 17.2.7 If the Contractor disregards any local, state or federal laws or regulations.
- 17.2.8 If the Contactor otherwise violates any provisions of this Agreement.
- 17.3 If Contractor, within a period of ten (10) calendar days after such notice, shall not proceed in accordance therewith, the City may exclude the Contractor from the Work site and take the prosecution of the Work out of the hands of the Contractor, and take possession of the Work and all of the Contractor's tools, appliances, construction equipment and machinery at the site and use them without liability to the City for trespass or conversion, incorporate in the Work all materials and equipment stored at the site or for which the City has paid the Contractor but which are stored elsewhere, and finish the Work as the City may deem expedient. In this instance, the Contractor shall not be entitled to receive any further compensation until the Work is finished.
 - 17.3.1 If after notice of termination of Contractor's right to proceed, it is determined for any reason that Contractor was not in default, the rights and obligations of City and Contractor shall be the same as if the notice of termination had been issued pursuant to the Termination for Convenience clause as set forth in Section 17.5 below.
 - 17.3.2 Upon receipt of Notice of Termination pursuant to Sections 17.2 or 17.5, Contractor shall promptly discontinue all affected work unless the Notice of Termination directs otherwise and deliver or otherwise make available to City all data, drawings, specifications, reports, estimates, summaries and such other information as may have been required by the Contract Documents whether completed or in process.

- 17.4 If the Contractor commits a default due to its insolvency or bankruptcy, the following shall apply:
 - 17.4.1 Should this Agreement be entered into and fully executed by the parties, funds released and the Contractor (Debtor) files for bankruptcy, the following shall occur:
 - 17.4.1.1 In the event the Contactor files a voluntary petition under 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303, the Contractor shall acknowledge the extent, validity, and priority of the lien recorded in favor of the City. The Contractor further agrees that in the event of this default, the City shall, at its option, be entitled to seek relief from the automatic stay pursuant to 11 U.S.C. 362. The City shall be entitled to relief from the automatic stay pursuant to 11 U.S.C. 362(d) (1) or (d) (2), and the Contactor agrees to waive the notice provisions in effect pursuant to 11 U.S.C. 362 and any applicable Local Rules of the United States Bankruptcy Court. The Contactor acknowledges that such waiver is done knowingly and voluntarily.
 - 17.4.1.2 Alternatively, in the event the City does not seek stay relief, or if stay relief is denied, the City shall be entitled to monthly adequate protection payments within the meaning of 11 U.S.C. 361. The monthly adequate protection payments shall each be in an amount determined in accordance with the Note and Mortgage executed by the Contractor in favor of the City.
 - 17.4.1.3 In the event the Contractor files for bankruptcy under Chapter 13 of Title 11, United States Code in additional to the foregoing provisions, the Contractor agrees to cure any amounts in arrears over a period not to exceed twenty-four (24) months from the date of the confirmation order, and such payments shall be made in addition to the regular monthly payments required by the Note and mortgage. Additionally, the Contractor shall agree that the City is over secured and, therefore, entitled to interest and attorney's fees pursuant to 11 U.S.C. 506(b). Such fees shall be allowed and payable as an administrative expense. Further, in the event the Contractor has less than five (5) years of payments remaining on the Note, the Contractor agrees that the treatment afforded to the claim of the City under any confirmed plan of reorganization shall provide that the remaining payments shall be satisfied in accordance with the Note, and that the remaining payments or claim shall not be extended or amortized over a longer period than the time remaining under the Note.
 - 17.4.2 Should this Agreement be entered into and fully executed by the parties, and the funds have not been forwarded to Contractor, the following shall occur:
 - 17.4.2.1 In the event the Contractor files a voluntary petition pursuant to 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303., the Contractor acknowledges that the commencement of a bankruptcy proceeding constitutes an event of default under the terms of this Agreement. Further, the Contractor acknowledges that this

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

- 17.5 Termination for Convenience: This Contract may be terminated for convenience in writing by City upon thirty (30) days written notice to Contractor (delivered by certified mail, return receipt requested) of intent to terminate and the date on which such termination becomes effective. In such case, Contractor shall be paid for all work executed and expenses incurred prior to termination in addition to termination settlement costs reasonably incurred by Contractor relating to commitments which had become firm prior to the termination. Payment shall include reasonable profit for work/services satisfactorily performed. No payment shall be made for profit for work/services which have not been performed.
- 17.6 Where the Contractor's service have been so terminated by the City, the termination shall not affect any rights of the City against the Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due the Contractor by the City will not release the Contractor from liability.
- 17.7 The Contractor has no right, authority or ability to terminate the Work except for the wrongful withholding of any payments due the Contractor from the City.

ARTICLE 18 - DISPUTE RESOLUTION

- 18.1 Resolution of Disputes: Questions, claims, difficulties and disputes of whatever nature which may arise relative to the technical interpretation of the Contract Documents and fulfillment of this Agreement as to the character, quality, amount and value of any work done and materials furnished, or proposed to be done or furnished under or, by reason of, the Contract Documents which cannot be resolved by mutual agreement of Contract Administrator and Contractor shall be submitted to the Consultant for resolution. When either party has determined that a disputed question, claim, difficulty or dispute is at an impasse, that party shall notify the other party in writing and submit the question, claim, difficulty or dispute to the Consultant for resolution. The parties may agree to a proposed resolution at any time without the involvement and determination of the Consultant.
 - 18.1.1 Consultant shall notify Contract Administrator and Contractor in writing of Consultant's decision within twenty-one (21) calendar days from the date of the submission of the question, claim, difficulty or dispute, unless Consultant requires time to gather information or allow the parties to provide additional information.

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

ARTICLE 19 – NOTICES

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

To the City:

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

with copy to the:

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

o the	Contra	actor:		

ARTICLE 20 - LIMITATION OF LIABILITY

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

ARTICLE 21 – GOVERNING LAW

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

ARTICLE 22 – MISCELLANEOUS

- 22.1 The duties and obligations imposed by this Agreement and the rights and remedies available to the parties and, in particular but without limitation, the warranties, guaranties and obligations imposed upon the Contractor and all of the rights and remedies available to the City, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents, and the provisions of this Paragraph will survive final payment and termination or completion of this Agreement.
- 22.2 The Contractor shall not assign or transfer this Agreement or its rights, title or interests. The obligations undertaken by the Contractor pursuant to this Agreement shall not be delegated or assigned to any other person or firm. Violation of the terms of this Paragraph shall constitute a material breach of Agreement by the Contractor and the City any, at its discretion, cancel this Agreement and all rights, title and interest of the Contractor which shall immediately cease and terminate.
- 22.3 The Contractor and its employees, volunteers and agents shall be and remain an independent contractors and not agents or employees of the City with respect to all of the acts and services performed by and under the terms of this Agreement. This Agreement shall not in any way be constructed to create a partnership, association or any other kind of joint undertaking or venture between the Parties.
- 22.4 The City reserves the right to audit the records of the Contractor relating in any way to the Work to be performed pursuant to this Agreement at any time during the performance and term of this Agreement and for a period of three (3) years after completion and acceptance by the City. If required by the City, the Contractor agrees to submit to an audit by an independent certified public accountant selected by the City. The Contractor shall allow the City to inspect, examine and review the records of the Contractor at any and all times during normal business hours during the term of this Agreement.
- 22.5 The remedies expressly provided in this Agreement to the City shall not be deemed to be exclusive but shall be cumulative and in addition to all other remedies in favor of the City now or later existing at law or in equity.
- 22.6 Should any part, term or provisions of this Agreement be decided by the courts to be invalid, illegal or in conflict with any state or federal law, the validity of the remaining portion or provision shall not be affected.
- 22.7 Prohibition Against Contracting With Scrutinized Companies: Subject to Odebrecht Construction, Inc., v. Prasad, 876 F.Supp.2d 1305 (S.D. Fla. 2012), affirmed, Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), that it is not engaged in a boycott of Israel, and that it does not

have business operations in Cuba or Syria, as provided in section 287.135, Florida Statutes (2018), as may be amended or revised. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2018), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2018), as may be amended or revised.

- 22.8 Public Entity Crimes: In accordance with the Public Crimes Act, Section 287.133, Florida Statutes, a person or affiliate who is a contractor, consultant or other provider, who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to the City, may not submit a bid on a contract with the City for the construction or repair of a public building or public work, may not submit bids on leases of real property to the City, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with the City, and may not transact any business with the City in excess of the threshold amount provided in Section 287.017, Florida Statutes, for category two purchases for a period of thirty-six (36) months from the date of being placed on the convicted vendor list. Violation of this section by Contractor shall result in cancellation of the City purchase and may (esult in Contractor debarment.
- 22.9 <u>Attorney Fees</u>: If CITY or CONSULTANT incurs any expense in enforcing the terms of this Agreement through litigation, the prevailing party in that litigation shall be reimbursed for all such costs and expenses, including but not limited to court costs, and reasonable attorney fees incurred during litigation.

22.10 Public Records

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT. **CTHE** CONTACT CUSTODIAN **OF PUBLIC** RECORDS PRRCONTRACT@FORTLAUDERDALE.GOV, AT 954-828-5002. CLERK'S OFFICE, 100 N. ANDREWS AVENUE, FORT LAUDERDALE, **FLORIDA 33301.**

Contractor shall:

- 1. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
- Upon request from the City's custodian of public records, provide the City with a
 copy of the requested records or allow the records to be inspected or copied within
 a reasonable time at a cost that does not exceed the cost provided in Chapter 119,
 Florida Statutes (2018), as may be amended or revised, or as otherwise provided
 by law.

- Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of this contract if the Contractor does not transfer the records to the City.
- 4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Contract, the Contractor shall meet all applicable requirements SAMPLE CONSTRUCTION ACRES 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

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Demolition and Abandonment of Pump Stations A-44, A-97 and C-31 (Contractor) Project 11889

CITY

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

	CITY OF FORT LAUDERDALE, a municipal corporation of the State of Florida
	By:
(CORPORATE SEAL)	ATTEST:
ON'S	By:
	Approved as to Legal Form:
SAMP	By: RHONDA MONTOYA HASAN Assistant City Attorney

CONTRACTOR

WITNESSES:	CONTRACTOR, a Florida corporation.
	By
Print Name	PRINT NAME Title
	ACREEMIN
(CORPORATE SEAL)	CILON
STATE OF FLORIDA: COUNTY OF BROWARD:	RIJO
The foregoing instrument was acknowled (Name), as Florida corporation, on behalf of the Corpora	ged before me this day of, 2018, by (Title) of (CONTRACTO8), a tion.
SEAL	Notary Public, State of Florida
SEAL	Name of Notary Typed, Printed or Stamped
☐ Personally Known or ☐ Produced Id	entification:
Type of Identification Produced:	

GENERAL CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"Notice" - shall mean written notice sent by certified United States Mail, return receipt requested, or sent by commercial express carrier with acknowledgement of delivery, or via fax or email, or by hand delivery with a request for a written receipt of acknowledgment of delivery and shall be served upon the Contractor either personally or to its place of business listed in the Bid.

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

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

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

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

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

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

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

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

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

The Contractor further acknowledges that it has satisfied itself based on any geotechnical reports the City may provide and inspection of the project Site as to the character, quality, and quantity of surface and subsurface materials to be encountered from inspecting the site and from evaluating information derived from exploratory work that may have been done by the City or included in the Contract Documents and finds and has further determined that no conditions exist that would in any manner affect the Bid price and that the project can be completed for the Bid price submitted.

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

- GC 03 SUBSTITUTIONS If the Contractor desires to use materials and/or products of manufacturer's names different from those specified in the Contract Documents, the Bidder requesting the substitution shall make written application as described herein. The burden of proving the equality of the proposed substitution rests on the Bidder making the request. To be acceptable, the proposed substitution shall meet or exceed all expressed requirements of the Contract Documents and shall be submitted upon the Contractor's letterhead, in addition to the "Contractor's Request for Substitution" form provided by the Public Works Director. The following requirements shall be met in order for the substitution to be considered:
 - 1. Requests for substitution shall reach the Public Works Director no less than ten (10) Working Days prior to the date set for opening of Bids; and
 - Requests for substitution shall be accompanied by such technical data, as the party making the request desires to submit. The Public Works Director will consider reports from reputable independent testing laboratories, verified experience records from previous users and other written information valid in the circumstances; and
 - 3. Requests for substitution shall completely and clearly indicate in what respects the materials and/or products differ from those indicated in the Contract Documents; and
 - 4. Requests for substitution shall be accompanied by the manufacturer's printed recommendations clearly describing the installation, use and care, as applicable, of the proposed substitutions; and
 - 5. Requests for substitution shall be accompanied by a complete schedule of changes in the Contract Documents, if any, which must be made to permit the use of the proposed substitution; and

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

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

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

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

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

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

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

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

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

- **GC-07 NO ORAL CHANGES** Except to the extent expressly set forth in the Contract, no change in or modification, termination or discharge of the Contract in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the parties charged, therewith or their duly authorized representative.
- **GC 08 PERMITS AND PROTECTION OF PUBLIC** Permits on file with the City and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Contract. A copy of all permits shall be given to the City and become part of the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

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

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

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

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

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

- **GC 09 DISEASE REGULATIONS** The Contractor shall enforce all sanitary regulations and take all precautions against infectious diseases as the Public Works Director may deem necessary. Should any infectious or contagious diseases occur among his employees, he shall arrange for the immediate removal of the employee from the Site and isolation of all persons connected with the Work.
- **GC 10 CONTRACTOR TO CHECK PLANS, SPECIFICATIONS, AND DATA** The Contractor shall verify all dimensions, quantities, and details shown on the plans, supplementary drawings, schedules, or other data received from the Public Works Director, and shall notify the Public Works Director of all errors, omissions, conflicts and discrepancies found therein within three (3) working days of discovery. Failure to discover or correct errors, conflictions, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory Work, faulty construction, or improper operation resulting there from nor from rectifying such condition at his own expense.
- **GC 11 SUPPLEMENTARY DRAWINGS** When, in the opinion of the Public Works Director, it becomes necessary to explain more fully the Work to be done, or to illustrate the work further, or to show any changes which may be required, drawings, known as supplementary drawings, with specifications pertaining thereto, will be prepared by the Public Works Director and copies will be given to the Contractor.

The supplementary drawings shall be binding upon the Contractor with the same force as the original Plans. Where such supplementary drawings require either less or more than the estimated quantities of work, credit to the City or compensations therefore to the Contractor shall be subject to the terms of the Contract.

GC - 12 - MATERIALS AND WORKMANSHIP - All material and workmanship shall, in every respect, be in conformity with approved modern practice and with prevailing standards of performance and quality. In the event of dispute the Public Works Director's decision shall be final. Wherever the Plans, specifications, Contract Documents, or the directions of the Public Works Director are unclear as to what is permissible and/or fail to note the quality of any Work, that interpretation will be made by the Public Works Director, which is in accordance with approved modern practice, to meet the particular requirements of the Contract.

In all cases, new materials shall be used, unless this provision is waived by notice from the City in writing.

- GC 13 SAFEGUARDING MARKS The Contractor shall safeguard all points, stakes, grade marks, monuments, and bench marks made or established on the Work, bear the cost of reestablishing same if disturbed, or bear the entire expense of rectifying Work improperly installed due to not maintaining or protecting or for removing without authorization, such established points, stakes and marks. The Contractor shall safeguard all existing and known property corners, monuments and marks not related to the Work and, if required, shall bear the cost of having them re-established by a licensed surveyor if disturbed or destroyed during the course of construction.
- **GC 14 EXISTING UTILITY SERVICE** All existing utility service shall be maintained with a minimum of interruption at the expense of the Contractor.
- **GC 15 JOB DESCRIPTION SIGNS** Contractor, at Contractor's expense, shall furnish, erect, and maintain suitable weatherproof signs on jobs over \$100,000 containing the following information:
 - 1. City Seal (in colors)
 - 2. Project or Improvement Number
 - 3. Job Description

- 4. Estimated Cost
- 5. Completion Date

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

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

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

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

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

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

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

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

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

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

- GC 20 PLACING BARRICADES AND WARNING LIGHTS The Contractor shall furnish and place, at his own expense, all barricades, warning lights, automatic blinker lights and such devices necessary to properly protect the work and vehicular and pedestrian traffic. Should the Contractor fail to erect or maintain such barricades, warning lights, etc., the Public Works Director may, after 24 hours' notice to the Contractor, proceed to have such barricades and warning lights placed and maintained by City or other forces and all costs incurred thereof charged to the Contractor and may be retained by the City from any monies due, or to become due, to the Contractor.
- GC 21 TRAFFIC CONTROL The Contractor shall coordinate all Work and obtain, through the City's Transportation and Mobility Department, Broward County, Florida Department of Transportation, as applicable, any permits required to detour traffic or close any street before starting to work in the road. The following section: Part VI Traffic Controls for Street and Highway Construction and Maintenance Operations, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, U.S. Department of Transportation Federal Highway Administration, 2009, or current edition, shall be used as a guide for requirement and placement of traffic control devices, signs and barricades. The Public Works Director shall determine requirements for the above. The above publication is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. In the event that a Maintenance of Traffic (MOT) Plan is required, the Plan shall be prepared by an A.A.S.T.A. certified technician.

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

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

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

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

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

- **GC 23 WATER** Bulk water used for construction, flushing pipelines, and testing shall be obtained from fire hydrants. Contractor shall make payment for hydrant meter at Treasury Billing Office, 1st Floor, City Hall, 100 N. Andrews Avenue. With the paid receipt, contractor can pick up hydrant meter at the utility location office. No connection shall be made to a fire hydrant without a meter connected.
- GC 24 PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES Subject to Odebrecht Construction, Inc., v. Prasad, 876 F.Supp.2d 1305 (S.D. Fla. 2012), affirmed, Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), that it is not engaged in a boycott

of Israel, and that it does not have business operations in Cuba or Syria, as provided in section 287.135, Florida Statutes (2018), as may be amended or revised. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2018), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2018), as may be amended or revised.

- **GC 25 LOCATION OF UNDERGROUND FACILITIES** If the Proposer, for the purpose of responding to this solicitation, requests the location of underground facilities through the Sunshine State One-Call of Florida, Inc. notification system or through any person or entity providing a facility locating service, and underground facilities are marked with paint, stakes or other markings within the City pursuant to such a request, then the Proposer shall be deemed non-responsive to this solicitation in accordance with Section 2-184(5) of the City of Fort Lauderdale Code of Ordinances.
- GC 26 USE OF FLORIDA LUMBER TIMBER AND OTHER FOREST PRODUCTS In accordance with Florida Statute 255.20 (3), The City specifies that lumber, timber, and other forest products used for this project shall be produced and manufactured in the state of Florida if such products are available and their price, fitness, and quality are equal. This requirement does not apply to plywood specified for monolithic concrete forms, if the structural or service requirements for timber for a particular job cannot be supplied by native species, or if the construction is financed in whole or in part from federal funds with the requirement that there be no restrictions as to species or place of manufacture.

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

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

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

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

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

Telephone Number: (954) 828-5002

Mailing Address: City Clerk's Office

100 N. Andrews Avenue Fort Lauderdale, FL 33301

E-mail: prrcontract@fortlauderdale.gov

Contractor shall:

- 1. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
- 2. Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes (2018), as may be amended or revised, or as otherwise provided by law.
- 3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of this contract if the Contractor does not transfer the records to the City.
- 4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

TECHNICAL SPECIFICATIONS

SECTION 01001 GENERAL REQUIREMENTS

PART 1 PROJECT DESCRIPTION

1.01 GENERAL

- A. A brief description of the Work is stated in the INVITATION TO BID. To determine the full scope of the Project or any particular part of the Project, coordinate the applicable information in these Contract Documents and review the available project drawings.
- B. The Work under this Contract shall be performed by the Contractor as required by the Owner. Work will be authorized by a Notice to Proceed issued to the Contractor. The Contractor shall complete all work within the number of calendar days stipulated in the Contract unless an extension in the time of completion is granted by the ENGINEER. Upon satisfactory completion of the work and compliance with applicable provisions in the Contract Documents, the Contractor will receive final payment for all work done.
- C. The following additional information, though not all-inclusive, is given to assist contractors in their evaluation of the work required to meet the project objectives.
- D. The Contractor shall become familiar with the existing operating conditions of the Owner's water system, sewage transmission system and pumping stations and take such into consideration in planning and scheduling work. No extra claims shall be made for work required to achieve conditions beyond those obtainable under normal operation of the existing transmission, collection and pumping facilities necessary to accomplish the Work.

1.02 DOT SPECIFICATIONS

A. Portions of The Florida Department of Transportation Standard Specifications for Road and Bridge Construction and their Roadway and Traffic Design Standards, hereinafter referred to as the DOT Standard Specifications, are referred to herein and amended, in part, and the same are hereby made a part of this Contract to the extent of such references and shall be as binding upon the Contract as though reproduced herein. Such reference shall mean the current edition, including all supplements. In case of a conflict in the requirements of the DOT Specifications and the requirements stated herein, the requirements herein shall prevail.

B. Contractor shall be required to submit MOTs for work in the county and state highways and City streets. Contractor shall coordinate with MOTs for nearby or highway work and obtain approval for all traffic control as required by the permits contained elsewhere in this Section.

PART 2 SEQUENCE OF OPERATIONS

2.01 SCHEDULING

- A. General: Prepare and submit schedule in accordance with the provisions of Section 01310, Progress Schedules.
- Plan the Work and carry it out with minimum interference to the operation of the existing facilities. Prior to starting the work, confer with the ENGINEER to develop an approved work schedule which will permit the facilities to function normally as practical. It may be necessary to do certain parts of the construction work outside normal working hours in order to avoid undesirable conditions. The Contractor shall do this work at such times, and at no additional cost to the Owner. Do not make connections between existing work and new work until necessary inspection and tests have been completed on the new work and it is found to conform in all respects to the requirements of the Contract Documents.
- C. No work shall be started until the Contractor has received approved shop drawings, established material/delivery dates for all equipment, and received approval of the construction schedule from the ENGINEER. The Contractor shall have sufficient manpower, equipment, and material to complete the project.
- D. No work shall commence without express consent of the ENGINEER.
- E. If a privately owned staging area is required, no work shall commence until approval of the facility is obtained from City Planning and Zoning in accordance with Section 47-19.2 of the Unified Land Development Regulations. Submit a copy of the approval and agreement to the ENGINEER.

2.02 MOBILIZATION AND DEMOBILIZATION

A. Contractor shall be responsible for mobilization and demobilization of labor, materials and equipment. Payment for mobilization and demobilization shall be included in the lump sum price indicated in the Proposal for the Project.

2.03 COORDINATION

- A. Contractor shall cooperate in the coordination of separate activities in a manner that will provide the least interference with the Owner's operations and other contractors and utility companies working in the area, and in the interfacing and connection of the separate elements of the overall project work.
- B. If any difficulty or dispute should arise in the accomplishment of the above, the problem shall be brought immediately to the attention of the ENGINEER.

2.04 SHUTDOWN OF EXISTING OPERATIONS OR UTILITIES

- A. Continuous operation of the Owner's service functions is of critical importance. The Contractor's work shall not result in the interruption of sewage, water, or solid waste service to any customers.
- B. Minimizing conflicts with the ongoing area-wide commercial activities is of critical importance. The Contractor's work shall minimize the interruption of operations at any facility or business.
- C. Connections to existing services or utilities, or other work that requires the temporary shutdown of any existing operations or utilities shall be planned in detail with appropriate scheduling of the work and coordinated with the ENGINEER. Two business days advanced notice shall be given in order that the ENGINEER may witness the shutdown, tie-in, and startup. The temporary shutdown must be approved by the Owner. All tie-in and bypass operations shall be the responsibility of the Contractor and are considered incidental to the cost of construction and provided at no additional cost to the Owner.
- D. All materials and equipment (including emergency equipment) necessary to expedite the tie-in shall be on hand and in proper working order prior to the shutdown of existing services or utilities.

2.05 OPERATION OF EXISTING SYSTEM PROHIBITED

A. At no time undertake to close off any utility lines or open valves or take any other action which would affect the operation of existing systems. The Owner's forces will operate all valves. Provide at least one business day notice to Owner prior to any operations.

2.06 BYPASS PUMPING

- Wastewater flows shall be controlled through the pipeline sections and pump Α. stations where work is being performed. Under no circumstances, can portions of the system be removed from service for periods of time in excess of that approved by the Owner. The Contractor shall be responsible to assess conditions and capacities of the existing sewer lines and pump stations and accommodate it in the project workplan in order to implement an acceptable bypass plan at no additional cost to the Owner. Bypass pumping will be required for all sewer and pump station reconstruction that would result in shutdown of existing facilities. The Contractor shall supply the necessary pumps, conduits, and other equipment to not only divert flow around the pump station, manhole or pipe section in which work is to be performed, but also to transmit the flow in downstream sewer lines and/or pump stations without surcharge. The bypass systems shall be of sufficient capacity to handle existing flows plus additional flows that may occur during periods of high tide or rainfall. Emergency backup pumping capability must be available in addition to the primary bypass system. The Contractor will be responsible for furnishing the necessary labor, power, and supervision to set up and operate the pumping and bypass systems. When pumping is in operation, all engines shall be equipped in a manner to keep the pump noise to a minimum and comply with the City noise ordinances.
- B. Bypass pumping operations shall comply with all applicable City ordinances.
- C. The Contractor shall be responsible for any damage to properties or buildings connected to the sewer system, and to the pipeline, which result from the flow control activities.
- D. The Contractor shall submit a bypass pumping plan for all proposed bypass pumping operations.

PART 3 SITE CONDITIONS

3.01 SITE INVESTIGATION AND REPRESENTATION

- A. The Contractor acknowledges satisfaction as to the general nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, availability of labor, water, electric power, roads, and uncertainties of weather, river stages, or similar physical conditions, the character of equipment and facilities needed preliminary to and during the prosecution of the work, and all other matters which can in any way affect the work or the cost thereof under this Contract.
- B. Failure by the Contractor to become acquainted with the physical conditions and all the available information will not relieve the Contractor from responsibility for properly estimating the difficulty or cost of successfully performing the Work.
- C. The Contractor warrants that as a result of examination and investigation of all the aforesaid data, the Contractor can perform the work in a good and

workmanlike manner and to the satisfaction of the Owner. The Owner assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of this Contract, unless (1) such representations are expressly stated in the Contract, and (2) the Contract expressly provides that the responsibility therefore is assumed by the Owner.

3.02 INFORMATION ON SITE CONDITIONS

A. General: Information obtained by the ENGINEER regarding site conditions, subsurface information, groundwater elevations, existing construction of site facilities as applicable, and similar data will be available for inspection at the office of the ENGINEER upon request. Such information is offered as supplementary information only. The ENGINEER does not assume any responsibility for the completeness or interpretation of such supplementary information.

3.03 UTILITIES

- A. The Contractor shall be responsible for determining and/or confirming, at his cost, the locations of all utilities within the project area, and shall be responsible for contacting each utility for location and notification prior to commencing work.
- B. The Contractor shall contact potentially affected utilities as provided in Section 01040, Coordination.
- C. The Contractor shall contact Sunshine 811 or visit http://www.sunshine811.com at least 2 business days (10 business days for water crossings) prior to any excavation and make arrangements for locating all utilities in the project area.

3.04 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

- A. Where the Contractor's operations could cause damage or inconvenience to utilities, telephone, television, power, water, or sewer systems, the operations shall be suspended until all arrangements necessary for the protection of these utilities and services have been made by the Contractor with the owner of the utility affected.
- B. Notify all utility offices which are affected by the construction operation at least 2 business days in advance. Under no circumstances expose any utility without first obtaining permission from the appropriate agency. Once permission has been granted, locate, expose, and provide temporary support for all existing underground utilities.
- C. The Contractor shall be solely and directly responsible to the Owner and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the construction operations under this Contract.

- D. Neither the Owner nor its officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the Work.
- E. In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration of service as promptly as possible and bear all costs of repair. In no case shall interruption of any water or utility service be allowed to exist outside working hours unless prior approval is granted.
- F. In the event the Contractor encounters water service lines or sewer laterals that interfere with trenching, he may, by obtaining prior approval of the property owner, the ENGINEER, cut the service, dig through, and restore the service with similar and equal materials at the Contractor's expense.
- G. The Contractor shall replace, at his own expense, all existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract documents or ordered by the Engineer.
- H. Telephone and communications drops and signal systems may extend throughout the project area. Properly located cable, conduit, interface equipment, pull or junction boxes and other signal or systems equipment damaged by the Contractor shall be replaced at the Contractor's expense.
 - 1. Damaged cable shall be replaced as an entire run, from junction box to iunction box.
 - 2. Notify Broward County Engineering two business days in advance of the need to remove traffic detection loops.
 - 3. Contractor shall verify marked cables and signal systems prior to excavation.

3.05 INTERFERING STRUCTURES

- A. Take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or underground.
- B. Protect underground and aboveground existing structures from damage, whether or not they lie within the limits of the easements obtained by the Owner. Where such existing fences, gates, sheds, buildings, or any other structure must be removed in order to properly carry out the construction, or are damaged during construction, restore to their original condition to the satisfaction of the property owner involved at the Contractor's own expense. Notify the Engineer of any damaged underground structure, and make repairs or replacements before backfilling.
- C. Without additional compensation, the Contractor may remove and shall replace in a condition as good as or better than original, such small miscellaneous structures as fences, mailboxes, and signposts that interfere with the Contractor's operations.

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3.06 EASEMENTS AND WORK ON PRIVATE PROPERTY

- Α. Where portions of the work are located on public or private property, easements and permits will be obtained by the Owner, except as otherwise noted in these Specifications. Easements will provide for the use of property for construction purposes to the extent indicated on the easements. Copies of these easements and permits are available upon request to the Owner. It shall be the Contractor's responsibility to determine the adequacy of the easement obtained in every case and to abide by all requirements and provisions of the easement. The Contractor shall confine his construction operations to within the easement limits or street right-of-way limits or make special arrangements with the property owners or appropriate public agency for the additional area required. Any damage to property, either inside or outside the limits of the easements provided by the Owner or street rights-of-way, shall be the responsibility of the Contractor as specified herein. The Contractor shall provide immediate notice to the OWNER of any damage to fencing and provide temporary fencing as required to provide a functionally similar level of security. The Contractor shall remove, protect, and replace all fences or other items encountered on public or private property. Before final payment will be authorized by the Engineer, the Contractor will be required to furnish the Owner with written releases from property owners or public agencies where side agreements or special easements have been made by the Contractor or where the Contractor's operations, for any reason, have not been kept within the construction right-of-way obtained by the Owner or the street right-of-way.
- B. The Contractor shall be responsible for all damage to private property where work related activities have occurred without proper easement or authorization. The City may withhold payment to the Contractor pending resolution of any claims by private owners.
- C. It is anticipated that the required easements and permits will be obtained before construction is started. However, should the procurement of any easement or permit be delayed, the Contractor shall schedule and perform the work around these areas until such a time as the easement or permit has been secured.
- D. Prior to removing an existing structure or item, provide written notice to the Owner at least 14 days in advance of the anticipated removal.
- E. The Contractor shall not engage in private construction activities within the project area without the presence of a contract with the private owner of the property containing a hold harmless clause protecting the City from any and all damages that occur during the performance of the privately authorized work.

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PART 4 SAFETY AND CONVENIENCE

4.01 SAFETY AND ACCESS

- A. The Contractor shall do all work necessary to protect the general public from hazards, including, but not limited to, surface irregularities or unramped grade changes in pedestrian sidewalk or walkway, and trenches or excavations in roadway. Barricades, lanterns, and proper signs shall be furnished in sufficient amount to safeguard the public and the work. All barricades and signs shall be clean and serviceable, in the opinion of the Engineer.
- B. During construction, the Contractor shall construct and at all times maintain satisfactory and substantial temporary chain link fencing, solid fencing, railing, barricades or steel plates, as applicable, at all openings, obstructions, or other hazards in streets, sidewalks, floors, roofs, and walkways. All such barriers shall have adequate warning lights as necessary, or required, for safety. All lights shall be regularly maintained, and in a fully operational state at all times.
- C. The Contractor shall notify all residences and businesses of planned construction at least 5 (five) business days prior to the start of work in the block where they are located. Such notices shall be brochures or door-hangers with sufficient information to describe the extent and duration of the planned work. Notification activities shall be coordinated with the ENGINEER.
- D. Homeowners and business owners shall be provided reasonable access. The Contractor shall provide temporary sidewalks, bridges or driveway access, including safe passage over open excavations as required.

4.02 ACCIDENT REPORTS

- A. In addition, the Contractor must promptly report in writing to the ENGINEER all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses. If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the ENGINEER.
- B. If a claim is made by anyone against the contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the ENGINEER, giving full details of the claim.
- 4.03 SAFE ACCESS BY FEDERAL, STATE, AND LOCAL GOVERNMENT OFFICIALS
 - A. Authorized representatives of the state, federal, or local governmental agencies, shall at all times have safe access to the work, and the Contractor shall provide proper facilities for such access and inspection.

4.04 PROTECTION OF PROPERTY

- A. Protect stored materials located adjacent to the proposed work. Notify property owners affected by the construction at least two business days in advance of the time construction begins. During construction operations, construct and maintain such facilities as may be required to provide access by all property owners to their property. No person shall be cut off from access to his residence or place of business for a period exceeding 2 hours, unless the Contractor has made special arrangements with the affected persons.
- B. The Contractor shall identify and isolate his active work zone in such a manner as to exclude all personnel not employed by him, the ENGINEER, and the Owner.

4.05 FIRE PREVENTION AND PROTECTION

A. The Contractor shall perform all work in a fire-safe manner. He shall supply and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. The Contractor shall comply with applicable federal, state, and local fire-prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed.

4.06 ACCESS FOR POLICE, FIRE, AND POSTAL SERVICE

- A. Notify the fire department and police department before closing any street or portion thereof. No closing shall be made without the Owner's approval of MOT plan. Notify said departments when the streets are again passable for emergency vehicles. Do not block off emergency vehicle access to consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, without special written permission from the fire department. Conduct operations with the least interference to fire equipment access, and at no time prevent such access. MOT plans that result in restricted access for emergency vehicles must be submitted and approved 2 weeks prior to the proposed closing with separate and specific notification made to the ENGINEER to provide for appropriate agency coordination.
- B. The Contractor shall leave a night emergency telephone number or numbers with the police department, the Engineer, and the Owner, so that contact may be made easily at all times in case of barricade and flare trouble or other emergencies.
- C. Maintain postal service facilities in accordance with the requirements of the U.S. Postal Service. Move mailboxes to temporary locations designated by the U.S. Postal Service, and at the completion of the work in each area, replace them in their original location and in a condition satisfactory to the U.S. Postal Service.

PART 5 PRESERVATION, RESTORATION, AND CLEANUP

5.01 SITE RESTORATION AND CLEANUP

- A. At all times during the work, keep the premises clean and orderly, and upon completion of the Work, repair all damage caused by equipment and leave the project free of rubbish or excess materials of any kind.
- B. Stockpile excavated materials in a manner that will cause the least damage to adjacent lawns, grassed areas, gardens, shrubbery, or fences, regardless of whether these are on private property, or on state, county, or city rights-of-way. Remove all excavated materials from grassed and planted areas, and leave these surfaces in a condition equivalent to their original condition. Replace excavated areas as specified in Section 02320, Trench Backfill, raked and graded to conform to their original contours.

5.02 FINISHING OF SITE, BORROW, AND STORAGE AREAS

A. Upon completion of the project, all areas used by the Contractor shall be properly cleared of all temporary structures, rubbish, and waste materials and properly graded to drain and blend in with the abutting property. Areas used for the deposit of waste materials shall be finished to properly drain and blend with the surrounding terrain. Grassed areas shall be restored as specified.

5.03 HISTORIC PRESERVATION

- A. If the project work should uncover prehistoric or historic artifacts associated with Native American cultures, early colonial cultures, or American settlements, all project activities in the area shall cease immediately.
- B. All such discoveries shall be reported to the Division of Historical Resources. Review and Compliance Section at (800) 847-7278.
- C. Project activities in the affected area cannot resume without authorization from the Division of Historic Resources.

PART 6 PERMITS

6.01 GENERAL

- A. Permits To Be Obtained by the Owner Include the Following:
 - 1. BCEPD: Collection/transmission system and pump station construction.
- B. Permits to be Obtained by the Contractor Include, but Are Not Limited to the following:
 - 1. Local and County Building permits.
 - 2. Local, County, and State contracting licenses.
 - 3. MOT approval from local, county, and state agencies as required.
 - 4. Tree removal and trimming permits.

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Exhibit 3

PROJECT 11889

- 5. BCEPD: Dewatering permit, including NPDES permit if required.
- 6. BCEPD: Environmental permits, drainage, and storm water construction.
- 7. Broward County Engineering: The contractor shall obtain a construction permit for work in any Broward County right-of-way.
- C. The Contractor shall comply with all applicable permit conditions.

END OF SECTION

PROJECT 11889

SECTION 01010 SUMMARY OF WORK

PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The completed Work will provide the OWNER with the demolition and abandonment of two submersible duplex pump stations and one dry-pit/wet-pit duplex pump station, and includes, but is not limited to the following project components:
 - 1. Removal and disposal of all pumps, pipes, valves, and fittings.
 - 2. Removal and disposal of all electrical and ventilation equipment.
 - 3. Salvage and delivery to the City, of certain items of equipment, where indicated in the drawings.
 - 4. Sewer lateral connections to existing 8" PVC gravity sewer.
 - 5. Restoration of landscape and irrigation;
 - 6. Site restoration, including curb and gutter, sidewalks, ramps, fencing
 - 7. Roadway restoration, including pavement markings, parking lots;
 - 8. Providing for maintenance of traffic;
 - 9. Construction coordination with all stakeholders as per Special Conditions, plans and specifications.

1.02 WORK NOT COVERED BY CONTRACT DOCUMENTS (NOT USED)

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 SEQUENCE OF WORK

A. The Work shall proceed in such a manner as to avoid disruption to existing operations, provide coordination with other related projects, and to minimize impacts on adjacent property owners.

END OF SECTION

SECTION 01025 MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SUBMITTALS

A. Informational:

- 1. Submit schedule on OWNER's form.
- 2. Application for Payment.
- 3. Final Application for Payment.

1.2 SCHEDULE

- A. Prepare a schedule for the Work in accordance with the requirements of Section 01310.
- B. Unit Price Work: Reflect unit price quantity and price breakdown from the conformed Bid Form
- C. Lump Sum Work:
 - 1. Reflect schedule format included in conformed Bid Form.
 - 2. List Bonds and insurance premiums, mobilization, demobilization, facility startup, allowance items and contract closeout separately.
 - 3. Break down by Divisions 2 through 16 with appropriate subdivision of each Specification.
- D. An unbalanced or front-end loaded schedule will not be acceptable.
- E. Summation of all the Work shall equal the Contract Price.

1.3 APPLICATION FOR PAYMENT

- A. Transmittal Summary Form: Attach one Summary Form with each detailed Application for Payment. Execute certification by authorized officer of CONTRACTOR.
- B. Use detailed Application for Payment Form provided by ENGINEER.

MEASUREMENT AND PAYMENT

C. Include each portion of Work and the unit price breakdown for the Work to be paid on unit price basis, and a listing of OWNER selected equipment, if applicable, and allowances, as appropriate.

D. Preparation:

- 1. Round values to nearest dollar.
- List each Change Order and Written Amendment executed prior to date of submission as separate line item. Totals to equal those shown on the Transmittal Summary Form.
- 3. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form, (4 copies), a listing of materials on hand as applicable, and such supporting data as may be requested by ENGINEER.

1.4 MEASUREMENT - GENERAL

- A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and Specifications as specified in National Institute of Standards and Technology, Handbook 44.
- B. Whenever pay quantities of material are determined by weight, material shall be weighed on scales furnished by CONTRACTOR and certified accurate by state agency responsible. Weight or load slip shall be obtained from weigher and delivered to ENGINEER or OWNER's representative at point of delivery of material.
- C. If material is shipped by rail, car weights will be accepted provided that actual weight of material only will be paid for and not minimum car weight used for assessing freight tariff, and provided further that car weights will not be acceptable for material to be passed through mixing plants.
- D. Vehicles used to haul material being paid for by weight shall be weighed empty daily and at such additional times as required by ENGINEER. Each vehicle shall bear a plainly legible identification mark.
- E. Materials that are specified for measurement by the cubic yard measured in the vehicle shall be hauled in vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles not meeting above requirements or loads of quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.
- F. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on

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Drawings. Variations of 1 foot or less will be ignored, and profiles shown on Drawings will be used for determining quantities.

G. Units of measure shown on Bid Form shall be as follows, unless specified otherwise. All methods of measurement shall be approved by the ENGINEER.

<u>ITEM</u>	METHOD OF MEASUREMENT
AC	Acre – Field Measure
AL	Allowance
CY	Cubic Yard – Field Measure within limits specified or shown, or measured in vehicle by volume, as specified
EA	Each – Field Count
GAL	Gallon – Field Measure
HR	Hour
LB	Pound(s) – Weight Measure by Scale
LF	Linear Foot – Field Measure
LS	Lump Sum – Unit is one; no measurement will be made
SF	Square Foot
SY	Square Yard
TON	Ton – Weight Measure by Scale (2,000 pounds)

1.5 PAYMENT

A. General:

- 1. Progress payments will be made monthly.
- 2. The date for CONTRACTOR's submission of monthly Application for Payment shall be established at the Preconstruction Conference.
- 3. The CONTRACTOR shall be solely and directly responsible to the OWNER and operators of utilities, telephone, television, power, water, or sewer systems for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the construction operations under this Contract.

MEASUREMENT AND PAYMENT

- 4. Neither the OWNER nor its officers or agents shall be responsible to the CONTRACTOR for damages as a result of the CONTRACTOR's failure to protect utilities encountered in the Work.
- 5. In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration of service as promptly as possible and bear all costs of repair. In no case shall interruption of any water or utility service be allowed to exist outside working hours unless prior approval is granted.
- 6. In the event the CONTRACTOR encounters water service lines or sewer laterals that interfere with trenching, he may, by obtaining prior approval of the property owner, the ENGINEER and the OWNER, cut the service, dig through, and restore the service with similar and equal materials at the CONTRACTOR's expense.
- 7. The CONTRACTOR shall replace, at his own expense, all existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract documents or ordered by the City of Fort Lauderdale.
- 8. Telephone and communication drops and systems may extend throughout the project area. Properly located cable, conduit, interface equipment, pull or junction boxes and other signal or systems equipment damaged by the CONTRACTOR shall be replaced at the CONTRACTOR's expense. Damaged cable shall be replaced as an entire run, from junction box to junction box.
- 9. Protect underground and aboveground existing structures from damage, whether or not they lie within the limits of the easements obtained by the OWNER. Where such existing fences, gates, sheds, buildings, or any other structure must be removed in order to properly carry out the construction, or are damaged during construction, restore to their original condition to the satisfaction of the property owner involved at the CONTRACTOR's own expense. Notify the ENGINEER of any damaged underground structure, and make repairs or replacements before backfilling.
- 10. Without additional compensation, the CONTRACTOR may remove and shall replace in a condition as good as or better than original, such small miscellaneous structure as fences, irrigation systems, mailboxes, and signposts that interfere with the CONTRACTOR's operations.
- 11. Any damage to property, either inside or outside the limits of the easements provided by the OWNER or street rights-of-way, shall be the responsibility of the CONTRACTOR as specified herein. The CONTRACTOR shall provide immediate notice to the OWNER of any damage to fencing and provide temporary fencing as required to provide a functionally similar level of security. The CONTRACTOR shall remove, protect and replace all fences or other items encountered on public or private property. Before final payment will be authorized by the ENGINEER, the CONTRACTOR will be required to furnish the OWNER with written releases from property owners or public agencies where side agreements or special easements have been made by the CONTRACTOR or where the CONTRACTOR's operations, for any reason, have not been kept

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within the construction right-of-way obtained by the OWNER or the street right-of-way.

12. The CONTRACTOR shall be responsible for all damage to private property where work related activities have occurred without proper easement or authorization. The CITY may withhold payment to the CONTRACTOR pending resolution of any claims by private owners.

B. General:

- 1. No material price increases will be allowed, including gasoline, diesel, asphalt cement, or other materials.
- C. Payment for Lump Sum Work covers all Work specified or shown for the following items:

1. LUMP SUM

ITEM	DESCRIPTION
1-a) Mobilization and Demobilization (not to exceed 8% of contract sum)	Payment for mobilization and demobilization will be made at the lump sum price named in the Bid Schedule. Mobilization includes, but is not limited to, bonds, videos, insurance, site cleanup, sanitary facilities, labor associated with permit acquisition, contractors staging area, project signs, (one per each site) testing, project coordination with City and other stakeholders, fencing and demobilization. Partial payments for mobilization and demobilization will be made as follows:
	50% at the beginning of the work50% at 100% complete
	1-a Mobilization and Demobilization LS
1-b) Maintenance of Traffic (not to exceed 5% of contract sum)	Payment for maintenance of traffic will be made at the lump sum price named in the Bid Schedule. Payment for maintenance of traffic will be made in equal monthly amounts for the project duration stated in the Contract. The lump sum price for this item shall include full compensation for all maintenance of traffic, including but not limited to all labor, equipment, and material required to keep roadways and property accesses in service during construction activities as specified in the Contract Documents and as required by FDOT, County, City, or local authorities. The CONTRACTOR's lump sum price shall include full compensation for preparation of maintenance of traffic plans (MOTs), all personnel

MEASUREMENT AND PAYMENT

ITEM	DESCRIPTION
1-b) cont'd	required to direct and maintain traffic (including local police as required), and all signs, cones, barricades, and temporary traffic lights. Additionally, this item shall include all costs associated with reduced or changed hours due to construction in school zones and all costs associated with the coordination of all other work underway at the same time (city, county, state) within the project limits.
	1-b Maintenance of Traffic LS
1-c) Permit Fees & FPL Electrical Service Allowance	Payment for permit fees will be based upon the actual permit fees required by the CONTRACTOR from the various agencies having jurisdiction for construction of the project, in accordance with the Contract Documents. Payment for electrical service modifications, excluding modifications specifically shown on the drawings, will be based on the actual costs incurred by the contractor to modify the electrical service as required by Florida Power & Light.
	The allowance amount shown on the contract is an estimate for the project and is a cost pass through item and no markups will be added to this item. The CONTRACTOR shall submit documentation with pay request verifying actual cost. Only permit fees and electrical service modification costs substantiated by the CONTRACTOR and approved by the ENGINEER will be paid as part of this bid item. Any balance in this item at the end of the project shall be credited back to the OWNER.
	1-c Permit Fees & FPL Electrical Service Allowance

2. SEWER

Payment for unit price items covers all the Work necessary to furnish and install the following items:

ITEM	DESCRIPTION
2-a,b,c) Demolition and Disposal of Existing Pump Station	Measurement for payment to demolish and dispose of mechanical and electrical and ventilation equipment of the existing pump station will be based upon the lump sum price named in the Bid Schedule, in accordance with the requirements of the Contract Documents.
	Payment for demolition and disposal of all pump station equipment will be made at the lump sum price named in the Bid Schedule, and will be made equivalent to the percent complete as determined by the OWNER, as of the date of the pay request. Lump sum price shall constitute full compensation for all work required, including cutting, welding, chiseling, hauling and disposal, for removal of all equipment, including lead paint removal and disposal, including but not limited to pumps, piping, valves, fittings, hatches, metal grilles, railings, tanks, ductwork, air blowers, miscellaneous metalwork and pipe-work, electrical conduits and wiring, electrical gutters, disconnects, control panel, motor control center, etc.
	Lump sum price includes all work for the removal of the electric supply at each station. Lump sum price also includes all work for removal of the water supply at each station, and abandonment of 4" forcemain for PS A-97 located on SW 18 th Avenue, including sawcut, pavement excavation, cut, cap and abandon water service line or forcemain, and pavement restoration.
	The lump sum price shall constitute full compensation for pumping and disposal of sewerage from the stations, cutting and grouting force-main pipes, core drill holes/openings in the sides and bottom of the structures, excavation and cutting/saw-cutting structures below ground level, and backfilling and abandoning the remaining structure, in place, sheeting and all excavation support to comply with the Trench Safety Act, pump station bypass, temporary power, ventilation, daily cleaning, all site and roadway restoration including landscape restoration (except where indicated to be paid separately as in A-44), irrigation system repair, sidewalk, curb and swale restoration, new handicap ramps, and pavement restoration, including pavement markings.

ITEM	DESCRIPTION
2-a,b,c (cont'd)	2-a Demolition and disposal of pump Station A-44 LS 2-b Demolition and disposal of pump Station A-97 LS 2-c Demolition and disposal of pump Station C-3 LS
2-d) Furnish and Install sanitary sewer laterals	Payment for furnishing and installing sanitary sewer laterals will be made at the unit price, for each, named in the Bid Schedule, and shall constitute full compensation for all work for the complete installation of the laterals, including but not limited to, excavation and backfill, removal and disposal of waste, excess, or unsuitable material, pipe bedding, pipe zone material, locator disk, 6 inch PVC SDR 35 pipe, connections to existing building sewer lines and mainline sewer, mainline wyes, fittings, cleanouts (no differentiation for cast iron and PVC covers), pump station bypass, saw-cutting, removal and disposal of existing asphalt pavement and sidewalk areas, 6 inch sidewalk restoration, roadway restoration including furnishing, placing and compacting 12 inch limerock base course and 1½ inch asphalt concrete surface. 2-d) Furnish and Install 6-inch sanitary sewer lateral

3. MISCELLANEOUS

ITEM	DESCRIPTION
3-a) Additional Work	Measurement for payment for labor, materials and equipment, for additional work that may be ordered by the Engineer due to the demolition nature of this project.
	Materials shall be reimbursed with a percent markup to include all direct and indirect costs associated with purchase, delivery, storage, handling, and profit. The markup percent for materials shall be 5%.
	Labor amount will include all direct and indirect costs associated with labor, benefits, and profit. Contractor and Engineer must first negotiate additional labor scope of work.
	Equipment shall be reimbursed for actual rental cost plus a five percent (5%) mark up on such cost. No overhead, profit, or other markup shall be reimbursed for equipment rental. Contractor shall submit copies of invoices which documents costs for rental equipment.

MEASUREMENT AND PAYMENT

ITEM	DESCRIPTION	
3-a) cont'd	Only work that is authorized and agreed upon in costs to the Engineer, shall be paid.	эу
	3-a Additional work AL	
3-b) Landscape Installation (PS A-44 only)	Lump sum payment for all work required for the installation of the landscape plan as shown on She LO1, for Pump Station A-44 only. The work include but is not limited to, digging, excavation, removal are disposal of waste, unsuitable, or excess materials, tree removal and disposal, tree relocation, site grading furnishing and installing plant materials, bracing fertilizing, watering, maintenance, permits, mulch, etc. Payment shall be made based on the percentage work completed, as determined by the Project Manage at the time of submittal of pay requests.	et es, nd ee g, g,
	3-b) Landscape Installation LS	

1.6 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for the following:
 - 1. Loading, hauling, and disposing of rejected material.
 - 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
 - 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of CONTRACTOR to conform to provisions of Contract Documents.
 - 4. Material not unloaded from transporting vehicle.
 - 5. Defective Work not accepted by OWNER.
 - 6. Material remaining on hand after completion of Work.

1.7 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial Payment: No partial payments will be made for stored materials.
- 1.8 ALLOWANCES

- A. The allowances shall be used only at the discretion of and as ordered by the OWNER.
- B. Any portion of these allowances that remain after all authorized payments have been made, will be withheld from contract payments and will remain with the OWNER.
- PART 2 PRODUCTS (NOT USED)
- PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01040 COORDINATION

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational:

- 1. Statement of Qualification (SOQ) for land surveyor or civil engineer.
- 2. Statement of Qualification (SOQ) for professional videographer.
- 3. Photographs:
 - a. Color Prints: Submit two copies, accompanied by negatives or digital files, within 5 days of being taken.
 - b. Video Recordings: Submit two copies within 5 days of being taken.

1.02 UTILITY NOTIFICATION AND COORDINATION

- A. Coordinate the Work with various utilities within Project limits. Notify applicable utilities prior to commencing Work.
 - 1. Contact the City of Fort Lauderdale Public Services Department at 954-828-8000 for water and sewer utility locations.
 - 2. Contact Sunshine State One Call at 1-800-432-4770 at least 2 business days prior to any excavation.
- B. If damage occurs, or if conflicts or emergencies arise during Work, contact the appropriate utility.
 - 1. Electricity Company: Florida Power and Light.
 - a. Contact Person: Trouble Center (or police/fire 911).
 - b. Telephone: 954-797-5000.
 - 2. Telephone Company: BellSouth.
 - a. Contact Person: Jason Boschen.
 - b. Telephone: 954-316-4005 or 954-605-1121.
 - 3. Water and Sewer Department: Fort Lauderdale Public Services Department.
 - a. Contact Person: Emergency Hotline.
 - b. Telephone: 954-828-8000.
 - 4. Gas Company: TECO Peoples Gas.
 - a. Contact Person: Dispatch.
 - b. Telephone: 305-957-3857, ext. 7490 or 1-877-832-6747.
 - 5. Telecom: AT&T Broadband/Comcast.
 - a. Contact: Andy Vaspasiano.
 - b. Telephone: 954-266-6589 or 954-444-2833.
 - 6. Telecom: FP&L FiberNet.
 - a. Contact: Noel R. Reese.
 - b. Telephone: 305-552-3249 or 305-205-1283.

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- 7. Broward County Traffic Engineering Division (For Traffic Signal Communications Systems Underground Cable and Traffic Loops):
 - a. Contact: Keith Smith.
 - b. Telephone: 954-484-9600, ext. 227.

1.03 PROJECT MEETINGS

A. General:

- Engineer: Schedule physical arrangements for meetings throughout progress of Work, prepare meeting agenda with CITY ENGINEER, Owner and Contractor input and distribute with written notice of each meeting, preside at meetings, record minutes to include significant proceedings and decisions, and reproduce and distribute copies minutes after each meeting to participants and parties affected by meeting decisions.
- 2. Representatives of CITY ENGINEER, Owner, Contractor, and Subcontractors shall attend meetings as needed.

B. Preconstruction Conference:

- 1. Contractor shall be prepared to discuss the following subjects, as a minimum:
 - a. Required schedules.
 - b. Status of Bonds and insurance.
 - c. Sequence of critical path work items.
 - d. Project changes and clarification procedures.
 - e. Use of site, access, office and storage areas, security and temporary facilities.
 - f. Major project delivery and priorities.
 - g. Contractor's safety plan and representative.
 - h. Progress payment procedures.
- 2. Attendees may include but not limited to:
 - a. Owner's representatives
 - b. CITY ENGINEER's representatives
 - c. Contractor's office representative
 - d. Contractor's resident superintendent
 - e. Contractor's quality control representative
 - f. Subcontractor's representatives whom Contractor may desire or CITY ENGINEER may request to attend.
 - g. Engineer's representatives.
 - h. Others as appropriate.
- C. Preliminary Schedules Acceptability Review Meeting: As required to review and finalize Preliminary Schedule.

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D. Progress Meetings:

- 1. Engineer will schedule regular progress meetings at site, conducted weekly to review Work progress, progress schedule, Shop Drawing and Sample submissions schedule, Application for Payment, contract modifications, and other matters needing discussion and resolution.
- 2. Attendees will include:
 - a. Owner's representatives, as appropriate.
 - b. CITY ENGINEER, as appropriate.
 - c. Contractor, Subcontractors and Suppliers, as appropriate.
 - d. Engineer's representative(s).
 - e. Others as appropriate.
- 3. On a monthly basis, the CITY ENGINEER will conduct a meeting to review work completed the previous month versus the Progress Schedule, work planned for upcoming month based on the Progress Schedule, the monthly Application for Payment, and any outstanding issues related to performance of the Work including pending contract modifications, requests for clarification, Shop Drawings, etc. All parties will attend the monthly meeting.

E. Preinstallation Meetings:

- 1. When required in individual Specification sections or as necessary to coordinate the Work, convene at site prior to commencing Work of that section.
- 2. Require attendance of entities directly affecting, or affected by, Work of that section.
- 3. Notify CITY ENGINEER 4 days in advance of meeting date.
- 4. Provide suggested agenda to CITY ENGINEER to include reviewing conditions of installation, preparation and installation or application procedures, and coordination with related Work and work of others.
- F. Other Meetings: In accordance with the Contract Documents and as may be required by the Owner, CITY ENGINEER, and Engineer.

1.04 COORDINATION WITH PROPERTY OWNERS AND STAKEHOLDERS

Contractor shall coordinate his work with the property owners and/or stakeholders for the various pump station sites.

A. Pump Station A-44

1. Broward County Homeless Assistance Center. Contact Director of Operations, Julie Lander, (954) 832-7022

B. Pump Station A-97

1. Sunnyreach Acres Townhomes Building Manager

C. Pump Station C-3

- 1. Principal, New River Middle School
- 2. Broward County Traffic Engineering. Contact Stephen Ramoutar, (954) 847-2671

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3. Broward County Schools Safety Office. Contact Safety Manager (754) 321-4200

1.05 FACILITY OPERATIONS

- A. Continuous operation of Owner's facilities is of critical importance. Schedule and conduct activities to enable existing facilities to operate continuously, unless otherwise specified.
- B. Perform Work continuously during critical connections and changeovers, and as required to prevent interruption of Owner's operations.
- C. When necessary, plan, design, and provide various temporary services, utilities, connections, temporary piping and heating, access, and similar items to maintain continuous operations of Owner's facilities.
- D. Do not close lines, open or close valves, or take other action which would affect the operation of existing systems, except as specifically required by the Contract Documents and after authorization by Owner and Engineer. Such authorization will be considered within 48 hours after receipt of Contractor's written request.
- E. Provide **7** days advance written request for approval of need to shut down a process or facility to Owner and CITY ENGINEER.
- F. Power outages will be considered upon 48 hours written request to Owner and CITY ENGINEER. Describe the reason, anticipated length of time, and areas affected by the outage. Provide temporary provisions for continuous power supply to critical facility components.
- G. Do not proceed with Work affecting a facility's operation without obtaining Owner's and CITY ENGINEER's advance approval of the need for and duration of such Work.
- H. Relocation of Existing Facilities:
 - 1. During construction, it is expected that minor relocations of Work will be necessary.
 - 2. If Contractor determines that in order to expedite construction of new water and or sewer mains it would be necessary to temporarily remove and replace existing water services and/or sewer service connections, he will be responsible for the removal and replacement of such service connections at his own cost and effort. The City will not provide additional compensation for any costs associated with such effort. All labor and material costs associated with means and methods of construction will be compensated as part of the bid item(s) cost submitted by the Contractor. Additionally, the Contractor will have to coordinate and inform utility owner(s) and any City resident(s) impacted by such activities and must repair such utilities in a timely manner to minimize disruption of service.
 - 3. Provide complete relocation of existing structures and Underground Facilities, including piping, utilities, equipment, structures, electrical

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- conduit wiring, electrical duct bank, traffic loop detectors and other necessary items.
- 4. Use only new materials for relocated facility. Match materials of existing facility, unless otherwise shown or specified.
- 5. Perform relocations to minimize downtime of existing facilities.
- 6. Install new portions of existing facilities in their relocated position prior to removal of existing facilities, unless otherwise accepted by CITY ENGINEER.

1.06 BYPASS PUMPING

- Α. Where the Work includes connections or modifications to existing sanitary sewer systems, wastewater flows shall be controlled through the pipeline sections and pump stations where work is being performed. Under no circumstances, can portions of the system be removed from service for periods of time in excess of that approved by the Owner. The Contractor shall be responsible to assess conditions and capacities of the existing sewerlines and pump stations in order to implement an acceptable bypass plan at no additional cost to the Owner. Bypass pumping will be required for all sewer and pump station construction that would result in shutdown of existing facilities. The Contractor shall supply the necessary pumps, conduits, and other equipment to not only divert flow around the pump station, manhole, or pipe section in which work is to be performed, but also to transmit the flow in downstream sewerlines and/or pump stations without surcharge. The bypass systems shall be of sufficient capacity to handle existing flows plus additional flows that may occur during periods of high tide or rainfall. Emergency backup pumping capability must be available in addition to the primary bypass system. The Contractor will be responsible for furnishing the necessary labor, power, and supervision to set up and operate the pumping and bypass systems. When pumping is in operation, all engines shall be equipped in a manner to keep the pump noise to a minimum and to comply with applicable noise ordinances.
- B. Contractor shall be responsible for any damage to properties or buildings connected to the sewer system, and to the pipeline, which result from the flow control activities.
- C. Contractor shall submit a bypass pumping plan for all proposed bypass pumping operations.

1.07 PHYSICAL CONDITIONS

- A. Exercise reasonable care to verify locations of existing subsurface structures and underground facilities.
- B. Thoroughly check immediate and adjacent areas subject to excavation by visual examination (and by electronic metal and pipe detection equipment, as necessary) for indications of subsurface structures and underground facilities.
- C. Make exploratory excavations where existing underground facilities or structures may potentially conflict with proposed underground facilities or structures. Conduct exploratory excavations in presence of Engineer and

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sufficiently ahead of construction to avoid possible delays to Contractor's Work.

1.08 ADJACENT FACILITIES AND PROPERTIES

A. Examination:

- After Effective Date of the Agreement and before Work at site is started, Contractor, CITY ENGINEER, and affected property owners and utility owners shall make a thorough examination of pre-existing conditions including existing buildings, structures, and other improvements in vicinity of Work, as applicable, which could be damaged by construction operations, including neighborhing properties.
- 2. Periodic reexamination shall be jointly performed to include, but not limited to, cracks in structures, settlement, leakage, and similar conditions.

B. Documentation:

- 1. Record and submit documentation of observations made on examination inspections in accordance with paragraphs Construction Photographs and Audio-Video Recordings.
- 2. Upon receipt, Engineer will review, sign, and return one record copy of documentation to Contractor to be kept on file in field office.
- 3. Such documentation shall be used as indisputable evidence in ascertaining whether and to what extent damage occurred as a result of Contractor's operations, and is for the protection of adjacent property owners, Contractor, and Owner.

1.09 CONSTRUCTION PHOTOGRAPHS

- A. Photographically document all unique portions of the construction including tie-ins to existing pipelines or facilities, crossings of existing utilities, buried valve and piping intersections, and other work items that will not otherwise be visible after completion of construction.
- B. Film or file handling and development shall be done by a commercial laboratory.
- C. CITY ENGINEER shall have the right to select the subject matter and vantage point from which photographs are to be taken.

D. Construction Progress Photos:

- 1. Photographically demonstrate progress of construction, showing every aspect of site and adjacent properties as well as interior and exterior of new or impacted structures.
- 2. Monthly: Take 24 exposures using 35 mm color film or digital photographs of comparable quality, unless otherwise approved by the CITY ENGINEER.

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E. Color Prints:

- 1. Minimum Size: 3-inch by 5-inch.
- 2. Finish: Glossy.
- 3. Label Each Print:
 - a. Project Name.
 - b. Date and time photo was taken.
 - c. Photographer's name.
 - d. Caption (maximum 30 characters).
 - e. Location and area designation.
 - f. Schedule activity number, as appropriate.
- 4. Assemble in bound albums in clear plastic sleeves that facilitate viewing both front and back of each photograph.
- 5. Assemble negatives in their corresponding album in clear plastic sleeves made for the purpose or on recordable CD media organized by project segment.

1.10 AUDIO-VIDEO RECORDINGS

- A. Prior to beginning Work on construction site or of a particular area of the Work, and again within 10 days following date of Substantial Completion, videograph construction site and property adjacent to construction site.
- B. In the case of preconstruction recording, no Work shall begin in the area prior to CITY ENGINEER's review and approval of content and quality of video for that area.
- C. Particular emphasis shall be directed to physical condition of existing vegetation, structures, and pavements within the construction site and areas adjacent to and within the right-of-way or easement, and on Contractor storage and staging areas.
- D. CITY ENGINEER shall have right to select subject matter and vantage point from which videos are to be taken.
- E. Video taping shall be by a professional commercial videographer, experienced in shooting construction videos.
- F. Video Format and Quality:
 - 1. DVD format, with sound.
 - 2. Video:
 - a. Produce bright, sharp, and clear images with accurate colors, free of distortion and other forms of picture imperfections.
 - b. Electronically, and accurately display the month, day, year, and time of day of the recording.
 - 3. Audio:
 - a. Audio documentation shall be done clearly, precisely, and at a moderate pace.
 - b. Indicate date, Project name, and a brief description of the location of taping, including:
 - 1) Facility name;

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- 2) Street names or easements;
- 3) Addresses of private property; and
- 4) Direction of coverage, including engineering stationing, if applicable.

G. Documentation:

- 1. Provide two copies to the Owner.
- DVD Label:
 - a. DVD number (numbered sequentially, beginning with 001).
 - b. Project Name.
 - c. Name of street(s) or easement(s) included.
 - d. Applicable location by engineering stationing.
 - e. Date and time of coverage.
- 3. Project DVD Log: Maintain an ongoing log that incorporates above noted label information for DVD'S on Project.
- H. The Following Shall be Included with the Video Documentation:
 - 1. Coverage is required within and adjacent to the construction site, the rights-of-way, easements, storage, and staging areas where the work is being constructed.
 - 2. Documentation of the conditions of the adjacent properties or any affected structures as a result of the impending construction.
 - 3. Certification as to date work done and by whom.
 - 4. All videos shall be keyed to the construction drawings, provided with an index and a written narrative.
- I. Preconstruction and Post-Construction Videos Shall be Submitted as follows:
 - 1. Preconstruction videos shall be presented to the Owner at the preconstruction conference.
 - 2. Post-construction videos shall be submitted prior to final project closeout. This submittal is contingent to final payment.
- J. Payment for the work in this Section will be included as part of the lump sum price for mobilization/demobilization.

1.11 REFERENCE POINTS, SURVEYS, AND RECORD DRAWINGS

- A. Location and elevation of benchmarks are shown on Drawings.
- B. Contractor's Responsibilities:
 - 1. Provide additional survey and layout required to layout the Work.
 - 2. Check and establish exact location of existing facilities prior to construction of new facilities and any connections thereto.
 - 3. In event of discrepancy in data or benchmarks, request clarification before proceeding with Work.
 - 4. Retain professional land surveyor or civil engineer registered in state of Florida who shall perform or supervise engineering surveying necessary for additional construction staking and layout.

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- 5. Maintain complete accurate log of survey Work as it progresses as a Record Document. The Contractor is responsible for the quality control of horizontal location and vertical elevations of the installed project.
- 6. On request of CITY ENGINEER, submit documentation.
- 7. Provide competent employee(s), tools, stakes, and other equipment and materials as CITY ENGINEER may require to:
 - a. Establish control points, lines, and easement boundaries.
 - b. Check layout, survey, and measurement Work performed by others.
 - c. Measure quantities for payment purposes.
- 8. Contractor shall be responsible for performing survey and preparing "as-built" drawings for the pump station construction.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

- 3.01 CUTTING, FITTING, AND PATCHING
 - A. Cut, fit, adjust, or patch Work and work of others, including excavation and backfill as required, to make Work complete.
 - B. Obtain prior written authorization of Engineer before commencing Work to cut or otherwise alter:
 - 1. Structural or reinforcing steel, structural column or beam, elevated slab, trusses, or other structural member.
 - 2. Weather- or moisture-resistant elements.
 - 3. Efficiency, maintenance, or safety of element.
 - 4. Work of others.
 - C. Refinish surfaces to provide an even finish.
 - 1. Refinish continuous surfaces to nearest intersection.
 - 2. Refinish entire assemblies.
 - 3. Finish restored surfaces to such planes, shapes, and textures that no transition between existing work and Work is evident in finished surfaces.
 - D. Restore existing work, Underground Facilities, and surfaces that are to remain in completed Work including concrete-embedded piping, conduit, and other utilities as specified and as shown.
 - E. Make restorations with new materials and appropriate methods as specified for new Work of similar nature; if not specified, use recommended practice of manufacturer or appropriate trade association.

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- F. Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces and fill voids.
- Remove specimens of installed Work for testing when requested by CITY G. ENGINEER.

END OF SECTION

SECTION 01300 SUBMITTALS

PART 1 GENERAL

1.01 DEFINITIONS

- A. Action Submittal: Written and graphic information submitted by Contractor, that requires Engineer's approval.
- B. Informational Submittal: Information submitted by Contractor, that does not require Engineer's or PUBLIC WORKS DIRECTOR's approval. Submittals not meeting conditions of the Contract will be returned.

1.02 DOCUMENT CONTROL SYSTEM

- A.deleted......
- B.deleted.....

1.03 PROCEDURES

- A. The Contractor shall prepare and submit select construction related correspondence, (transmittals, RFI's proposals, etc.) to the Project Construction Manager (PCM). During the preconstruction meeting(s) the Contractor shall be instructed by the City of Fort Lauderdale PCM on the details for submitting correspondence for this Contract.
- B. Direct submittals to PUBLIC WORKS DIRECTOR at the following address, unless specified otherwise.
 - 1. City of Fort Lauderdale, 100 North Andrews, 4th Floor, Fort Lauderdale, FL 33301;

C. Transmittal of Submittal:

- Contractor shall:
 - a. Review each submittal and check for compliance with Contract Documents.
 - b. Stamp each submittal with uniform approval stamp before submitting to PUBLIC WORKS DIRECTOR.
 - Stamp to include Project name, submittal number, Specification number, Contractor's reviewer name, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with Contract Documents.
 - 2) PUBLIC WORKS DIRECTOR will not review submittals that do not bear Contractor's approval stamp and will return them without action.

- 2. Complete, sign, and transmit with each submittal package, one Transmittal of Contractor's Submittal form attached at end of this Section.
- 3. Identify each submittal with the following:
 - a. Numbering and Tracking System:
 - 1) Sequentially number each submittal.
 - 2) Resubmission of submittal shall have original number with sequential alphabetic suffix.
 - b. Specification section and paragraph to which submittal applies.
 - c. Project title and Owner's project number.
 - d. Date of transmittal.
 - e. Names of Contractor, Subcontractor or Supplier, and manufacturer as appropriate.
- 4. Identify and describe each deviation or variation from Contract Documents.

D. Format:

- 1. Do not base Shop Drawings on reproductions of Contract Documents.
- 2. Package submittal information by individual specification section. Do not combine different specification sections together in submittal package, unless otherwise directed in Specification.
- 3. Present in a clear and thorough manner and in sufficient detail to show kind, size, arrangement, and function of components, materials, and devices, and compliance with Contract Documents.
- 4. Index with labeled tab dividers in orderly manner.
- E. Timeliness: Schedule and submit in accordance with schedule of Shop Drawing and Sample submittals, and requirements of individual Specification sections.

F. Processing Time:

- 1. Time for review shall commence on PUBLIC WORKS DIRECTOR's receipt of submittal.
- 2. PUBLIC WORKS DIRECTOR will act upon Contractor's submittal and transmit response to Contractor not later than 21days after receipt, unless otherwise specified.
- 3. Resubmittals will be subject to same review time.
- 4. No adjustment of Contract Times or Price will be allowed due to delays in progress of Work caused by rejection and subsequent resubmittals.
- G. Resubmittals: Clearly identify each correction or change made.
- H. Incomplete Submittals:
 - 1. PUBLIC WORKS DIRECTOR will return entire submittal for Contractor's revision if preliminary review deems it incomplete.
 - 2. When any of the following are missing, Submittal will be deemed incomplete:
 - a. Contractor's review stamp, completed and signed.
 - b. Transmittal of Contractor's Submittal, completed and signed.

- c. Insufficient number of copies.
- I. Submittals Not Required by Contract Documents:
 - 1. Will not be reviewed and will be returned stamped "Not Subject to Review."
 - 2. PUBLIC WORKS DIRECTOR will keep one copy and return all remaining copies to Contractor.

1.04 ACTION SUBMITTALS

A. Prepare and submit Action Submittals required by individual Specification sections.

B. Shop Drawings:

- 1. Copies: Four
- 2. Identify and Indicate:
 - Applicable Contract Drawing and Detail number, products, units and assemblies, and system or equipment identification or tag numbers.
 - b. Equipment and Component Title: Identical to title shown on Drawings.
 - c. Critical field dimensions and relationships to other critical features of Work. Note dimensions established by field measurement.
 - d. Project-specific information drawn accurately to scale.
- 3. Manufacturer's Standard Schematic Drawings and Diagrams as follows:
 - a. Modify to delete information that is not applicable to the Work.
 - b. Supplement standard information to provide information specifically applicable to the Work.
- 4. Product Data: Provide as specified in individual Specification sections.
- 5. Foreign Manufacturers: When proposed, include following additional information:
 - a. Names and addresses of at least 2 companies that maintain technical service representatives close to Project.
 - b. Complete list of spare parts and accessories for each piece of equipment.

C. Samples:

- 1. Copies: 3, unless otherwise specified in individual Specification sections.
- 2. Preparation: Mount, display, or package Samples in manner specified to facilitate review of quality. Attach label on unexposed side that includes the following:
 - a. Manufacturer name.
 - b. Model number.
 - c. Material.
 - d. Sample source.
- 3. Manufacturer's Color Chart: Units or sections of units showing full range of colors, textures, and patterns available.

- 4. Full-size Samples:
 - a. Size as indicated in individual Specification section.
 - b. Prepared from same materials to be used for the Work.
 - c. Cured and finished in manner specified.
 - d. Physically identical with product proposed for use.
- D. Action Submittal Dispositions: PUBLIC WORKS DIRECTOR will review, mark, and stamp as appropriate, and will distribute marked-up copies as noted:
 - Approved:
 - a. Contractor may incorporate product(s) or implement Work covered by submittal.
 - b. Distribution:
 - 1) One copy retained by PUBLIC WORKS DIRECTOR.
 - 2) One copy furnished to City Inspector.
 - 3) One copy retained in Engineer's file.
 - 4) Remaining copy returned to Contractor appropriately annotated.
 - 2. Approved as Noted:
 - a. Contractor may incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
 - b. Distribution:
 - 1) One copy retained by PUBLIC WORKS DIRECTOR.
 - 2) One copy furnished to City Inspector.
 - 3) One copy retained in Engineer's file.
 - 4) Remaining copy returned to Contractor appropriately annotated.
 - 3. Partial Approval, Resubmit as Noted:
 - a. Make corrections or obtain missing portions, and resubmit.
 - b. Except for portions indicated, Contractor may begin to incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
 - c. Distribution:
 - 1) One copy retained by PUBLIC WORKS DIRECTOR.
 - 2) One copy furnished to City Inspector.
 - 3) One copy retained in Engineer's file.
 - 4) Remaining copy returned to Contractor appropriately annotated.
 - 4. Revise and Resubmit:
 - Contractor may not incorporate product(s) or implement Work covered by submittal.
 - b. Distribution:
 - 1) One copy retained by PUBLIC WORKS DIRECTOR.
 - 2) One copy furnished to City Inspector.
 - 3) One copy retained in Engineer's file.
 - 4) Remaining copy returned to CONTRACTOR appropriately annotated.
 - 5. Not Subject to Review: Information received is not required by contract.

1.05 INFORMATIONAL SUBMITTALS

A. General:

- 1. Copies: Submit 3 copies, unless otherwise indicated in individual Specification section.
- 2. Refer to individual Specification sections for specific submittal requirements.
- 3. PUBLIC WORKS DIRECTOR will review each submittal. If submittal meets conditions of the Contract, PUBLIC WORKS DIRECTOR will forward copies to appropriate parties. If PUBLIC WORKS DIRECTOR determines submittal does not meet conditions of the Contract and is therefore considered unacceptable, PUBLIC WORKS DIRECTOR will retain one copy and return remaining copies with review comments to Contractor, and require that submittal be corrected and resubmitted.
- B. Application for Payment: In accordance with Section 01025, Measurement and Payment.

C. Certificates:

- 1. General:
 - Provide notarized statement that includes signature of entity responsible for preparing certification.
 - b. Signed by officer or other individual authorized to sign documents on behalf of that entity.
- 2. Welding: In accordance with individual Specification sections.
- 3. Installer: Prepare written statements on manufacturer's letterhead certifying that installer complies with requirements as specified in individual Specification sections.
- 4. Material Test: Prepared by qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- 5. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency or specified in individual Specification sections.
- 6. Manufacturer's Certificate of Compliance: In accordance with Section 01640, Manufacturers' Services.
- 7. Manufacturer's Certificate of Proper Installation: In accordance with Section 01640, Manufacturers' Services.
- D. Construction photographs and video: In accordance with Section 01040, Coordination, and as may otherwise be required in Contract Documents.
- E. Contract Closeout Submittals: In accordance with Section 01780, Contract Closeout.
- F. Contractor-Design Data:
 - 1. Written and graphic information.
 - 2. List of assumptions.
 - 3. List of performance and design criteria.
 - 4. Summary of loads or load diagram, if applicable.
 - 5. Calculations.
 - 6. List of applicable codes and regulations.
 - 7. Name and version of software.

- 8. Information requested in individual Specification section.
- G. Manufacturer's Instructions: Written or published information that documents manufacturer's recommendations, guidelines, and procedures in accordance with individual Specification sections.
- H. Operation and Maintenance Data: As required in Section 01430, Operation and Maintenance Data.

Schedules:

- 1. Schedule of Shop Drawing and Sample Submittals: Prepare separately or in combination with Progress Schedule as specified in Section 01310, Progress Schedules.
 - a. Show for Each, at a Minimum, the Following:
 - 1) Specification section number.
 - 2) Identification by numbering and tracking system as specified under Paragraph Transmittal of Submittal.
 - 3) Estimated date of submission to PUBLIC WORKS DIRECTOR, including reviewing and processing time.
 - On a monthly basis, submit updated schedule to PUBLIC WORKS DIRECTOR if changes have occurred or resubmittals are required.
- 2. Schedule of Values: In accordance with Section 01025, Measurement and Payment.
- 3. Schedule of Estimated Progress Payments: In accordance with Section 01310, Progress Schedules.
- 4. Progress Schedules: In accordance with Section 01310, Progress Schedules.
- J. Special Guarantee: Supplier's written guarantee as required in individual Specification sections.
- K. Statement of Qualification: Evidence of qualification, certification, or registration as required in Contract Documents to verify qualifications of professional land surveyor, engineer, materials testing laboratory, specialty Subcontractor, trade, Specialist, consultant, installer, and other professionals.
- L. Submittals Required by Laws, Regulations, and Governing Agencies:
 - 1. Submit promptly notifications, reports, certifications, payrolls, and otherwise as may be required, directly to the applicable federal, state, or local governing agency or their representative.
 - 2. Transmit to PUBLIC WORKS DIRECTOR for Owner's records one copy of correspondence and transmittals (to include enclosures and attachments) between Contractor and governing agency.
- M. Test and Inspection Reports:
 - 1. General: Shall contain signature of person responsible for test or report.
 - 2. Factory:

- a. Identification of product and Specification section, type of inspection or test with referenced standard or code.
- b. Date of test, Project title and number, and name and signature of authorized person.
- c. Test results.
- d. If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
- e. Provide interpretation of test results, when requested by Engineer.
- f. Other items as identified in individual Specification sections.
- 3. Field: As a minimum, include the following:
 - a. Project title and number.
 - b. Date and time.
 - c. Record of temperature and weather conditions.
 - d. Identification of product and Specification section.
 - e. Type and location of test, sample, or inspection, including referenced standard or code.
 - f. Date issued, testing laboratory name, address, and telephone number, and name and signature of laboratory inspector.
 - g. If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
 - h. Provide interpretation of test results, when requested by Engineer.
 - i. Other items as identified in individual Specification sections.
- N. Testing and Startup Data: In accordance with Section 01810, Equipment Testing and Facility Startup.
- O. Training Data: In accordance with Section 01640, Manufacturers' Services.

1.06 CONTRACTOR CORRESPONDENCE

- A. The Contractor shall submit selected construction related correspondence. During the pre-construction meeting the Contractor shall be instructed by the City of Fort Lauderdale PCM (Phone: 954-828-5071) on the details of processing such documents for this Project.
- B. The Contractor shall be required to track, at a minimum, the following documents:
 - 1. RFI's.
 - 2. CCIR's.
 - 3. Daily Reports.

1.07 SUPPLEMENTS

- A. The supplement listed below, following "END OF SECTION," is part of this Specification.
 - 1. Forms: Transmittal of Contractor's Submittal.

SUBMITTALS

1.08 PROGRESS PAYMENTS/REQUISITIONS FOR PAYMENT

A. The Contractor is responsible for creating the initial payment requisition. Each requisition shall be produced from updated progress data contained in the schedule and updated progress data. On a monthly basis, the Contractor shall meet with the PCM to discuss and agree on the progress of the work. Failure of the Contractor to maintain record documents and submit project schedule updates may result in a delay in processing monthly or final payment requisitions.

- PART 2 PRODUCTS (NOT USED)
- PART 3 EXECUTION (NOT USED)

END OF SECTION



TO: City of Fort Lauderdale		Submittal No.:										
100 North Andrews, 4 th Floor		☐ New Submittal ☐ Resubmittal										
Fort Lauderdale, FL 33301		Project:										
Attn: Stan Edwards, Project Construction Manager FROM: Contractor		Project No.: Specification Section No.: (Cover only one section with each transmittal) Schedule Date of Submittal:										
								AL TYPE: Shop Drawing	☐ Samp	le 🔲 I	nformatior	nal
							Number of	Description of Item Submitted (Type, Size, Model Number,	Spec. and Para.	Drawing or Brochure	Contains Variation to Contract	
Copies	Etc.)	No.	Number	No	Yes							
		1		1	I							

Contractor hereby certifies that (i) Contractor has complied with the requirements of Contract Documents in preparation, review, and submission of designated Submittal and (ii) the Submittal is complete and in accordance with the Contract Documents and requirements of laws and regulations and governing agencies.

By:	
Contractor (Authorized Signature)	

SECTION 01310 PROGRESS SCHEDULES

PART 1 GENERAL

1.01 SUBMITTALS

- A. Informational Submittals:
 - 1. Preliminary Progress Schedule: Submit within 14 days after Notice to Proceed.
 - 2. Detailed Progress Schedule:
 - a. Submit initial Detailed Progress Schedule within 60 days after Notice to Proceed.
 - b. Submit an Updated Progress Schedule at each update, in accordance with Article Detailed Progress Schedule.
 - 3. Submit with Each Progress Schedule Submission:
 - a. Contractor's certification that progress schedule submission is actual schedule being utilized for execution of the Work.
 - b. Progress Schedule: 4 legible color copies.
 - c. Narrative Progress Report: Same number of copies as specified for Progress Schedule.
 - 4. Prior to final payment, submit a final Updated Progress Schedule.

1.02 PRELIMINARY PROGRESS SCHEDULE

- A. Submit a detailed schedule, beginning with Notice to Proceed, for minimum duration of 90 days, and a summary of balance of Project through Final Completion.
- B. Show activities including, but not limited to the following:
 - 1. Notice to Proceed.
 - 2. Permits.
 - 3. Submittals, with review time. Contractor may use schedule of Shop Drawings and Samples specified in Section 01300, Submittals.
 - 4. Early procurement activities for long lead equipment and materials.
 - 5. Initial site work.
 - 6. Earthwork.
 - 7. Specified Work sequences and construction constraints.
 - 8. Contract Milestone and Completion Dates.
 - 9. Owner-furnished products delivery dates or ranges of dates.
 - 10. Major structural, mechanical, equipment, electrical, architectural, and instrumentation and control Work.
 - 11. System startup summary.
 - 12. Project closeout summary.
 - 13. Demobilization summary.
- C. Format: In accordance with Article Progress Schedule Critical Path Network.

1.03 DETAILED PROGRESS SCHEDULE

- A. Submit Detailed Progress Schedule beginning with Notice to Proceed and continuing through Final Completion.
- B. Show the duration and sequences of activities required for complete performance of the Work reflecting means and methods chosen by Contractor.
- C. Detailed Progress Schedule will be resource/cost loaded to facilitate progress payments by the PUBLIC WORKS DIRECTOR. Cost loading will reflect cash flows and the Schedule of Values with the sum of all tasks equal to the Contract total.
- D. When accepted by PUBLIC WORKS DIRECTOR, Detailed Progress Schedule will replace Preliminary Progress Schedule and become Baseline Schedule. Subsequent revisions will be considered as Updated Progress Schedules.
- E. Format: In accordance with Article Progress Schedule-Critical Path Network.
- F. Update monthly to reflect actual progress and occurrences to date, including weather delays.

1.04 PROGRESS SCHEDULE – CRITICAL PATH NETWORK

A. General: The Progress Schedule will be a comprehensive computer-generated schedule using CPM scheduling methodologies and techniques.

B. Contents:

- 1. Schedule shall begin with the date of Notice to Proceed and conclude with the date of Final Completion.
- 2. Identify Work calendar basis using days as a unit of measure.
- 3. Show complete interdependence and sequence of construction and Project-related activities reasonably required to complete the Work.
- 4. Identify the Work of separate stages and other logically grouped activities, and clearly identify critical path of activities.
- 5. Reflect sequences of the Work, restraints, delivery windows, review times, Contract Times and Project Milestones set forth in the Agreement and Section 01040, Coordination.
- 6. Include as applicable, at a minimum:
 - a. Obtaining permits, submittals for early product procurement, and long lead time items.
 - b. Mobilization and other preliminary activities.
 - c. Initial site work.
 - d. Specified Work sequences, constraints, and Milestones, including Substantial Completion date(s) Subcontract Work.
 - e. Major equipment design, fabrication, factory testing, and delivery dates.

- f. Delivery dates for Owner-furnished products, as specified in Section 01010, Summary of Work, if applicable.
- g. Sitework.
- h. Concrete Work.
- i. Structural steel Work.
- j. Architectural features Work.
- k. Conveying systems Work.
- I. Equipment Work.
- m. Mechanical Work.
- n. Electrical Work.
- o. Instrumentation and control Work.
- p. Interfaces with Owner-furnished equipment, if applicable.
- q. Other important Work for each major facility.
- r. Equipment and system startup and test activities.
- s. Project closeout and cleanup.
- t. Demobilization.
- 7. No activity duration, exclusive of those for Submittals review and product fabrication/delivery, shall be less than 1 day nor more than 14 days, unless otherwise approved.
- 8. Activity duration for Submittal review shall not be less than review time specified unless clearly identified and prior written acceptance has been obtained from PCM.
- Constrained dates will not be utilized except for contractual start and complete dates, unless otherwise approved by the PCM. All tasks will be logically tied, unless approved by the PCM.

C. Network Graphical Display:

- 1. Plot or print on paper not greater than 30 inches by 42 inches or smaller than 22 inches by 34 inches, unless otherwise approved.
- 2. Title Block: Show name of Project, Owner, date submitted, revision or update number, and the name of the scheduler. Updated schedules shall indicate the current data date.
- 3. Identify horizontally across top of schedule the time frame by year, month, and day.
- 4. Identify each activity with a unique number and a brief description of the Work associated with that activity.
- 5. Indicate the critical path.
- 6. Show, at a minimum, the controlling relationships between activities.
- 7. Plot activities on a time-scaled basis, with the length of each activity proportional to the current estimate of the duration.
- 8. Plot activities on an early start basis unless otherwise requested by PUBLIC WORKS DIRECTOR.
- 9. Plot to include current Early Bars as well as Target/Baseline bars.
- 10. Provide a legend to describe standard and special symbols used.

D. Schedule Report:

- 1. On 8-1/2-inch by 11-inch white paper, unless otherwise approved.
- 2. List information for each activity in tabular format, including, at a minimum:

- a. Activity Identification Number.
- b. Activity Description.
- c. Original Duration.
- d. Remaining Duration.
- e. Early Start Date (Actual start on Updated Progress Schedules).
- f. Early Finish Date (Actual finish on Updated Progress Schedules).
- g. Late Start Date.
- h. Late Finish Date.
- i. Total Float.
- 3. Sort reports, in ascending order, as listed below:
 - Activity number sequence with predecessor and successor activity.

1.05 PROGRESS OF THE WORK

- A. Updated Progress Schedule Shall Reflect:
 - 1. Progress of Work to within 5 working days prior to submission.
 - 2. Approved changes in Work scope and activities modified since submission.
 - 3. Delays in Submittals or resubmittals, deliveries, or Work.
 - 4. Adjusted or modified sequences of Work.
 - 5. Other identifiable changes.
 - 6. Revised projections of progress and completion.
 - 7. Report of changed logic.
- B. Produce detailed subschedules during Project, upon request of Owner or PUBLIC WORKS DIRECTOR to further define critical portions of the Work such as facility shutdowns.
- C. Produce a highlighted 3-week Look Ahead Schedule for construction meetings on a weekly basis or as determined by the Owner or PUBLIC WORKS DIRECTOR, with schedule information compiled from the latest DETAILED PROGRESS SCHEDULE update.
- D. If Contractor fails to complete activity by its latest scheduled completion date and this failure is anticipated to extend Contract Times (or Milestones), Contractor shall, within 7 days of such failure, submit a written statement as to how Contractor intends to correct nonperformance and return to acceptable current progress schedule. Actions by Contractor to complete the Work within Contract Times (or Milestones) will not be justification for adjustment to Contract Price or Contract Times.
- E. Owner may order Contractor to increase plant, equipment, labor force or working hours if Contractor fails to:
 - 1. Complete a Milestone activity by its completion date.
 - 2. Satisfactorily execute Work as necessary to prevent delay to overall completion of Project, at no additional cost to Owner.
- 1.06 NARRATIVE PROGRESS REPORT

A. Format:

- 1. Organize same as Progress Schedule.
- 2. Identify, on a cover letter, reporting period, date submitted, and name of author of report.

B. Contents:

- 1. Number of days worked over the period, work force on hand, construction equipment on hand (including utility vehicles such as pickup trucks, maintenance vehicles, stake trucks).
- 2. General progress of Work, including a listing of activities started and completed over the reporting period, mobilization/demobilization of subcontractors, and major milestones achieved.
- 3. Contractor's plan for management of site (e.g., lay down and staging areas, construction traffic), utilization of construction equipment, buildup of trade labor, and identification of potential Contract changes.
- 4. Identification of new activities and sequences as a result of executed Contract changes.
- 5. Documentation of weather conditions over the reporting period, and any resulting impacts to the work.
- 6. Description of actual or potential delays, including related causes, and the steps taken or anticipated to mitigate their impact.
- 7. In the case that actual or potential delays have been identified, the Narrative Progress report should be accompanied by a proposed work around schedule to mitigate potential and or actual delays.
- 8. Changes to activity logic.
- 9. Changes to the critical path.
- 10. Identification of, and accompanying reason for, any activities added or deleted since the last report.
- 11. Steps taken to recover the schedule from Contractor-caused delays.

1.07 SCHEDULE ACCEPTANCE

- A. PUBLIC WORKS DIRECTOR's Acceptance Will Demonstrate Agreement That:
 - 1. Proposed schedule is accepted with respect to:
 - a. Contract Times, including Final Completion and all intermediate Milestones are within the specified times.
 - b. Specified Work sequences and constraints are shown as specified.
 - c. Specified Owner-furnished Equipment or Material arrival dates, or range of dates, are included.
 - d. Access restrictions are accurately reflected.
 - e. Start-up and testing times are as specified.
 - f. Submittal review times are as specified.
 - g. Startup testing duration is as specified and timing is acceptable
 - h. Resource/cost loading and schedule of values are equal to the total sum of the signed Contract.

- 2. In all other respects, PCM's acceptance of Contractor's schedule indicates that, in PCM's judgement, schedule represents reasonable plan for constructing Project in accordance with the Contract Documents. PCM's review will not make any change in Contract requirements. Lack of comment on any aspect of schedule that is not in accordance with the Contract Documents will not thereby indicate acceptance of that change, unless Contractor has explicitly called the nonconformance to PCM's attention in submittal. Schedule remains Contractor's responsibility and Contractor retains responsibility for performing all activities, for activity durations, and for activity sequences required to construct Project in accordance with the Contract Documents.
- B. Unacceptable Preliminary Progress Schedule:
 - 1. Make requested corrections; resubmit within 10 days.
 - 2. Until acceptable to PUBLIC WORKS DIRECTOR as Baseline Progress Schedule, continue review and revision process, during which time Contractor shall update schedule on a monthly basis to reflect actual progress and occurrences to date.
- C. Unacceptable Detailed Progress Schedule:
 - 1. Make requested corrections; resubmit within 10 days.
 - 2. Until acceptable to PUBLIC WORKS DIRECTOR as Baseline Progress Schedule, continue review and revision process.
- D. Narrative Report: All changes to activity duration and sequences, including addition or deletion of activities subsequent to PUBLIC WORKS DIRECTOR's acceptance of Baseline Progress Schedule, shall be delineated in Narrative Report current with proposed Updated Progress Schedule.

1.08 ADJUSTMENT OF CONTRACT TIMES

- A. Reference General Conditions.
- B. Evaluation and reconciliation of Adjustments of Contract Times shall be based on the Updated Progress Schedule at the time of proposed adjustment or claimed delay.
- C. Float:
 - 1. Float time is a Project resource available to both parties to meet contract Milestones and Contract Times.
 - Use of float suppression techniques such as preferential sequencing or logic, special lead/lag logic restraints, and extended activity times are prohibited and use of float time disclosed or implied by use of alternate float-suppression techniques shall be shared to proportionate benefit of Owner and Contractor.
 - 3. Pursuant to above float-sharing requirement, no time extensions will be granted nor delay damages paid until a delay occurs which (i) impacts

Project's critical path, (ii) consumes available float or contingency time, and (iii) extends Work beyond contract completion date.

- D. Claims Based on Contract Times:
 - Where PUBLIC WORKS DIRECTOR has not yet rendered formal decision on Contractor's claim for adjustment of Contract Times, and parties are unable to agree as to amount of adjustment to be reflected in progress schedule, Contractor shall reflect an interim adjustment in the progress schedule as acceptable to PUBLIC WORKS DIRECTOR.
 - 2. It is understood and agreed that such interim acceptance will not be binding on either Contractor or Owner, and will be made only for the purpose of continuing to schedule Work until such time as formal decision has been rendered as to an adjustment, if any, of the Contract Times.
 - 3. Contractor shall revise progress schedule prepared thereafter in accordance with PUBLIC WORKS DIRECTOR's formal decision.
- PART 2 PRODUCTS (NOT USED)
- PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this Section:
 - 1. American Association of Nurserymen: American Standards for Nursery Stock.
 - 2. U.S. Weather Bureau, "Rainfall-Frequency Atlas of the U.S. for Durations From 30 Minutes to 24 Hours and Return Periods From 1 to 100 Years."
 - 3. U.S. Department of Agriculture, "Urban Hydrology for Small Watersheds."
 - 4. Federal Emergency Management Agency.
 - 5. NFPA, National Fire Prevention Standard for Safeguarding Building Construction Operations.
 - 6. Florida Department of Law Enforcement Domestic Terrorism Task Force for Code Orange Conditions.

1.02 SUBMITTALS

A. Informational Submittals:

- 1. Copies of permits and approvals for construction as required by laws and regulations and governing agencies.
- 2. Temporary Utility Submittals: Dewatering well locations.
- 3. Temporary Construction Submittals:
 - a. Access Roads: Routes, cross-sections, and drainage facilities.
 - b. Parking area plans.
 - c. Contractor's field office, storage yard, and storage building plans, including gravel surfaced area.
 - d. Fencing and protective barrier locations and details.
 - e. Engineer's field office plans.
 - f. Staging area location plan and permits as required.
 - g. Maintenance of Traffic (MOT) Plans: As specified herein, and proposed revisions thereto.
 - h. Plan for maintenance of existing sanitary sewer and potable water services and systems.

1.03 MOBILIZATION

- A. Mobilization May Include, but Not be Limited To, These Principal Items:
 - 1. Obtaining required permits.
 - 2. Moving Contractor's field office and equipment required for operations onto site.
 - 3. Installing temporary construction power, wiring, and lighting facilities.
 - 4. Providing onsite communication facilities as required...

- 5. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
- 6. Arranging for and erection of Contractor's work and storage yard.
- 7. Posting OSHA required notices and establishing safety programs and procedures.
- 8. Having Contractor's superintendent at site full time.
- B. Contractor is responsible for finding a suitable location for a project staging and material storage area, as required.
- C. Contractor is responsible for finding a suitable location for the project field office as well as the Engineer's field office if required by the project. Field offices may be stand alone facilities or suitable, existing commercial office space.

1.04 PERMITS

A. Permits, Licenses, or Approvals: Obtain in accordance with the Owner's construction standards and Specifications and as otherwise required for completion of the Work.

1.05 PROTECTION OF WORK AND PROPERTY

- A. Comply with Owner's safety rules while on Owner's project.
- B. Keep Owner informed of serious onsite accidents and related claims.

1.06 VEHICULAR TRAFFIC

- A. Maintenance of Traffic Plans (MOTs):
 - Adhere to MOTs reviewed and accepted by the PCM, and approved by the appropriate agency. Changes to this plan shall be made only by written approval of appropriate public authority and the PCM. Secure approvals for necessary changes so as not to delay progress of the Work.
 - Traffic Routing: In MOT, show sequences of construction affecting use
 of roadways, time required for each phase of the Work, provisions for
 decking over excavations and phasing of operations to provide
 necessary access, and plans for signing, barricading, and striping to
 provide passages for pedestrians and vehicles.
- B. Preparation of MOTs: Contractor shall be prepare and submit MOTs where required by federal, state, county, or local agencies having jurisdiction. Contractor shall obtain all required approvals and permits associated with the MOTs.
 - Traffic control on all city, county, and state highway rights-of-way shall meet the requirements of the City of Fort Lauderdale, where applicable, and the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, as well as FDOT standard details for

- maintenance of traffic, in accordance with the Manual for Uniform Traffic Control and Safe Practices.
- 2. Traffic control on all county rights-of –way shall meet the additional requirements of the Broward County Engineering Department including but not limited to:
 - a. Notification of intent to commence construction activities in a county right of way shall be provided to the PUBLIC WORKS DIRECTOR no less than 10 business days prior to the start of construction.
 - b. The use of solid barriers to separate construction from adjacent traffic lanes where the difference in grade is greater than 12 inches.
 - c. Plating or backfilling of all nonprotected excavations at the close of each working day.
 - d. Broward County shall be named as an additional insured on Surety Bonds for any projects requiring work within County rights-of-way.
- 3. Temporary traffic control on City streets shall utilize barrels in lieu of folding barricades. Contractor is to submit a sample or detail of proposed barrel to be used as part of the MOT submittal.
- 4. Traffic control on all FDOT and Broward County highways shall include flagmen during all periods of active construction.
- 5. Contractor shall submit copies of all MOT's to the PUBLIC WORKS DIRECTOR concurrent with submittal to the approving authority.
- 6. Contractor shall submit three copies of the agency-approved MOT prior to initiation of construction or as required by specific permits contained herein.
- 7. All MOTs shall be ATS certified.

1.07 PEDESTRIAN TRAFFIC

- A. The "MAINTENANCE OF TRAFFIC" Plan, provided by the Contractor, shall include provisions for pedestrian and transit vehicular traffic where applicable. The following are minimum requirements:
 - 1. The Contractor shall be responsible for providing a safe and adequate walking surface applicable to the Americans with Disabilities Act (ADA) for pedestrians. Safe walk routes for all pedestrians and transit users within the vicinity of the construction zone shall be maintained throughout construction. This includes safe walk routes/access to and from existing bus stops and transit vehicles. If the current walking surface and access to and from transit vehicles at bus stops can not be maintained, then a temporary road-rock 4-foot walk way shall be created. The safe walk route shall be separated from the construction activity by the 4-foot high orange construction fence for the entire length of the project or the length of the walk route, whichever is less.
 - 2. Pedestrian walkways, bus stops and pedestrian access to transit vehicles should be maintained free of any obstructions and hazards such as holes, debris, mud, construction equipment, stored materials, etc. Any hazards near or adjacent to walkways, bus stops and access to transit vehicles should be clearly delineated.

- 3. Where street closures do not allow access for scheduled garbage and refuse removal, the Contractor shall provide for moving residential containers to a suitable collection point on regular pick-up days.
- 4. Where safe pedestrian access/walkways can not be provided, pedestrians should be directed to alternative routes by appropriate traffic control devices. Pedestrian, bicycle, and wheelchair traffic shall be guided and maintained (special attention is directed to the existing bus stop location access) using approved warning lights, signing, and channelization devices. Such control devices shall be installed and maintained in accordance with the MUTCD sections on work zone traffic control for pedestrians and Chapter 6D. Pedestrian and Worker Safety.
- 5. Where construction activities involve consecutive bus stops, access to and from all bus stops should be maintained. If access to and from all bus stops can not be maintained, then a bus stop may be temporarily relocated or removed. However, no two consecutive bus stop shall be affected in this manner. If a stop requires temporary removal or relocation, then the Transit Superintendent at the Broward County Mass Transit Division, (954) 357-8381, should be notified 10 days prior to the occurrence so that appropriate notification can be completed by the Mass Transit Division.
- 6. It shall be the responsibility of the Contractor to install any necessary pavement, road rock, pavement marking and signage and/or any pedestrian signalization and/or signal modification to accommodate an existing or alternate walk route.
- 7. Thirty days prior to the beginning of construction the Contractor shall notify the Transit Superintendent at the Broward county Mass Transit Division, (954) 357-8381, to arrange a pre-construction transit route/pedestrian access safety meeting. This meeting is to determine all bus routes affected and to make any necessary arrangements for rerouting and temporary signing.

PART 2 PRODUCTS

2.01 ENGINEER'S FIELD OFFICES (deleted)

PART 3 EXECUTION

- 3.01 ENGINEER'S FIELD OFFICE (deleted)
- 3.02 TEMPORARY UTILITIES

A. Power:

- 1. Electric power will be available at or near site. Determine type and amount available and make arrangements for obtaining temporary electric power service, metering equipment, and pay all costs for the electric power used during contract period, except for portions of the Work designated in writing by Engineer as substantially complete.
- 2. Cost of electric power used in performance and acceptance testing will be borne by Contractor.

- B. Lighting: Provide temporary lighting to meet all applicable safety requirements to allow erection, application, or installation of materials and equipment, and observation or inspection of the Work.
- C. Heating, Cooling, and Ventilating:
 - 1. Provide as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for installation of materials, and to protect materials, equipment, and finishes from damage due to temperature or humidity.
 - 2. Provide adequate forced air ventilation of enclosed areas to cure installed materials, to dispense humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.
 - 3. Pay all costs of installation, maintenance, operation, removal, and fuel consumed.
 - 4. Provide portable unit heaters, complete with controls, oil- or gas-fired, and suitably vented to outside as required for protection of health and property.
 - 5. If permanent natural gas piping is used for temporary heating units, do not modify or reroute gas piping without approval of utility company. Provide separate gas metering as required by utility.

D. Water:

- 1. Hydrant Water:
 - a. Is available from nearby hydrants. Secure written permission for connection, meter installation, and use from water department and meet requirements for use. Notify fire department before obtaining water from fire hydrants.
 - b. Use only special hydrant-operating wrenches to open hydrants. Make certain that hydrant valve is open full, since cracking the valve causes damage to the hydrant. Repair damaged hydrants and notify appropriate agency as quickly as possible. Hydrants shall be completely accessible to fire department at all times.
 - c. Include costs to connect and transport water to construction areas in Contract Price.
- E. Sanitary and Personnel Facilities: Provide and maintain facilities for Contractor's employees, Subcontractors, and all other onsite employer's employees. Service, clean, and maintain facilities and enclosures.
- F. (deleted)
- G. Fire Protection: Furnish and maintain on site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable parts of National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241).

3.03 PROTECTION OF WORK AND PROPERTY

A. General:

- 1. Perform Work within right-of-way and easements in a systematic manner that minimizes inconvenience to property owners and the public.
- 2. No residence or business shall be cut off from vehicular traffic for a period exceeding 2 hours, unless special arrangements have been made.
- 3. Maintain in continuous service all existing oil and gas pipelines, underground power, telephone or communication cable, water mains, irrigation lines, sewers, poles and overhead power, and all other utilities encountered along line of the Work, unless other arrangements satisfactory to owners of said utilities have been made.
- 4. Where completion of the Work requires temporary or permanent removal and/or relocation of existing utility, coordinate all activities with owner of said utility and perform all work to their satisfaction.
- 5. Protect, shore, brace, support, and maintain underground pipes, conduits, drains, and other underground utility construction uncovered or otherwise affected by construction operations.
- 6. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
- 7. In areas where Contractor's operations are adjacent to or near a utility, such as gas, telephone, television, electric power, water, sewer, or irrigation system, and such operations may cause damage or inconvenience, suspend operations until arrangements necessary for protection have been made by Contractor.
- 8. Notify property owners and utility offices that may be affected by construction operation at least 5 working days in advance.
 - a. All homes and businesses affected by construction activities shall be notified by use of a "doorhanger" type announcement describing at a minimum, the nature of the Work, the proposed schedule and the Contractor's contact information. An example doorhanger is provided as a supplement to this Section.
 - 1) The doorhangers shall be attached to the door, fence or other suitable location.
 - 2) The doorhanger shall be enclosed in an 8-½ -inch by 11-inch, weather resistant clear plastic bag with the notification information clearly visible from the outside.
 - b. Before exposing a utility, obtain utility owner's permission. Should service of utility be interrupted due to Contractor's operation, notify proper authority immediately. Cooperate with said authority in restoring service as promptly as possible and bear costs incurred.
- Do not impair operation of existing utility systems. Prevent construction material, pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering sewers, storm drains, pump stations, or other sewer structures.
- 10. Maintain original site drainage wherever possible.

B. Traffic Signal Communications Systems:

- 1. Maintain in continuous operation all existing traffic signal communication systems located within the Project limits for the duration of the Project. Maintenance of the traffic signal communication systems may entail the use of leased facilities, temporary splices, or the provision of alternate or replacement facilities as proposed by the Contractor and approved by the Broward County Traffic Engineering Division.
 - a. Online communication of existing or temporary signalization shall be maintained by interconnect cable or TELCO phone lines during construction.
 - b. A time based coordination (TBC) system may used only if either of the above is not feasible. TBC systems shall be developed by a traffic engineer registered in the State of Florida subject to County approval.
 - c. All reported malfunctions of traffic control systems shall be responded to by the Contractor within 2 hours and repaired within 24 hours.
- 2. In the event of a failure in the continuous operation of the traffic signal communication system, prepare a Remedial Action Plan that has been coordinated with the Broward County Traffic Engineering Division to determine the nature of the failure. The Remedial Action Plan shall be documented in a written report and submitted within one calendar day of the notification of the discontinuous operation of the traffic signal communication system.
- 3. Complete the implementation of the Remedial Action Plan within two calendar days upon receipt of approval of the Plan by the Broward County Traffic Engineering Division. Reworking of the Plan shall be required if the minimum system communication requirements are not met, as determined by the Broward County Traffic Engineering Division, as a result of a given Remedial Action Plan.
- 4. In the event that the traffic signal communication systems are damaged, a temporary splice to a damaged copper communications cable shall be accomplished by using approved splice material for connecting the bare wires. For damaged fiber optic communication systems, mechanical splicing of the fiber to achieve a maximum loss of 0.20 dB is acceptable. A junction box shall be installed over the splice on a temporary basis for access, unless a new cable is installed as per specifications.
- 5. Any material furnished and installed for the replacement of existing traffic communications infrastructure shall meet Broward County standards.
- 6. All traffic signal communication systems that were temporarily spliced shall be removed and replaced in kind with new cable, subject to approval by the Broward County Traffic Engineering Division, prior to final acceptance of the Project. Replacement shall be from junction box to junction box with no intermediate splices.

C. Site Security:

1. General – Code Yellow or Less:

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- a. All Sites: Provide and maintain temporary security fences as necessary to protect the Work and Contractor-furnished products not yet installed.
- b. Secure sites include, but are not limited to, water treatment plants, wastewater treatment plants, wellfields, water booster pump stations, storage facilities, and master lift stations.
- c. All employees shall have a company or City provided photo identification badge to be worn at all times while on a secure project site.
- d. Visitors shall be required to obtain daily visitor badges and vehicle access.
- e. Obtain approval in writing from the OWNER for work on secure sites outside of normal working hours. Approval must be available for inspection while working on the site after hours.
- 2. Code Orange Conditions for Work on Secure Sites:
 - a. The Contractor shall provide a list, to be updated weekly or whenever employees are added or removed, of all employees and subcontractor employees to be provided site access. Access for employees or visitors cannot be guaranteed and is subject to the discretion of security personnel.
 - b. All employees shall wear badges and sign-in daily.
 - c. The Contractor shall provide advance notice and coordinate with the OWNER for screening and delivery of all materials and supplies, including FedEx, US Postal Service, UPS, and all general delivery items.
 - 1) All packages for water treatment plant sites will be delivered through the central depot.
 - 2) All packages shall have the name of a Contractor's employee stationed at the jobsite.
 - 3) All delivery drivers shall have suitable photo identification and will be required to go through security procedures.
 - 4) No delay claims will be allowed for failure to obtain clearance for deliveries or to delays associated with the above processes.

3. Code Red Conditions:

- a. Work on secure sites will be stopped for the duration of code red conditions. No access by Contractor or subcontractor personnel will be permitted until clearance has been granted by the Owner.
- b. The Contractor will be compensated for standby delay under code red conditions as provided in Section 00826, SPECIAL CONDITIONS.

D. Barricades and Lights:

- 1. Provide as necessary to prevent unauthorized entry to construction areas and affected roads, streets, and alleyways, inside and outside of fenced area, and as required to ensure public safety and the safety of Contractor's employees, other employer's employees, and others who may be affected by the Work.
- 2. Provide to protect existing facilities and adjacent properties from potential damage.
- 3. Locate to enable access by facility operators and property owners.

- 4. Protect streets, roads, highways, and other public thoroughfares that are closed to traffic by effective barricades with acceptable warning signs.
- 5. Locate barricades at the nearest intersecting public thoroughfare on each side of the blocked section.

E. Signs and Equipment:

- 1. Conform to requirements of manual published by the FDOT.
- 2. Barricades: Provide as required by the FDOT Vehicle Code and in sufficient quantity to safeguard public and Work.
- 3. Portable TOW-AWAY-NO STOPPING Signs: Place where approved by police department and Owner.
- 4. Traffic Cones: Provide to delineate traffic lanes to guide and separate traffic movements.
- 5. High-Level Warning Flag Units: Provide two in advance of traffic approaching the Work, each displaying three flags mounted at a height of 9 feet.
- 6. ROAD CONSTRUCTION AHEAD Signs: Provide four, size 48 inches by 48 inches. Place in conspicuous locations, approximately 200 feet in advance of the Work, and facing approaching traffic.
- 7. DETOUR Signs: Provide two, right arrow or left arrow, placed as approved by the PCM.
- 8. RIGHT or LEFT LANE CLOSED AHEAD Signs: Provide two, place in advance of lane to be closed.
- 9. Provide at obstructions, such as material piles and equipment.
- 10. Illuminate barricades and obstructions with warning lights from sunset to sunrise.
- 11. Use to alert general public of construction hazards, which would include surface irregularities, unramped walkways, grade changes, and trenches or excavations in roadways and in other public access areas.
- 12. Submit proposed signage to the PCM for prior approval.
- F. Existing Structures: Where Contractor contemplates removal of small structures such as mailboxes, signposts, and culverts that interfere with Contractor's operations, obtain approval of property owner and PUBLIC WORKS DIRECTOR. Replace those removed in a condition equal to or better than original.
- G. Finished Construction: Protect finished floors and concrete floors exposed as well as those covered with composition tile or other applied surfacing.
- H. Waterways: Keep ditches, culverts, and natural drainages continuously free of construction materials and debris.

I. Dewatering: Construct, maintain, and operate cofferdams, channels, flume drains, sumps, pumps, or other temporary diversion and protection works. Furnish materials required, install, maintain, and operate necessary pumping and other equipment for the environmentally safe removal and disposal of water from the various parts of the Work. Maintain foundations and parts of the Work free from water.

3.04 TEMPORARY CONTROLS

A. Air Pollution Control:

- 1. Minimize air pollution from construction operations.
- 2. Burning: Of waste materials, rubbish, or other debris will not be permitted on or adjacent to Site.
- 3. Conduct operations of dumping rock and of carrying rock away in trucks to cause a minimum of dust. Give unpaved streets, roads, detours, or haul roads used in construction area a dust-preventive treatment or periodically water to prevent dust as needed up to daily, as directed by the Owner. Strictly adhere to applicable environmental regulations for dust prevention.

B. Noise Control:

- 1. Provide acoustical barriers so noise emanating from tools or equipment will not exceed legal noise levels.
- 2. Noise Control Plan: Propose plan to mitigate construction noise and to comply with noise control ordinances, including method of construction, equipment to be used, and acoustical treatments.

C. Water Pollution Control:

- Divert sanitary sewage and nonstorm waste flow interfering with construction and requiring diversion to sanitary sewers. Do not cause or permit action to occur which would cause an overflow to existing waterway.
- 2. Prior to commencing excavation and construction, obtain PUBLIC WORKS DIRECTOR'S agreement with detailed plans showing procedures intended to handle and dispose of sewage, groundwater, and stormwater flow, including dewatering pump discharges.
- 3. Comply with procedures outlined in U.S. Environmental Protection Agency manuals entitled, "Guidelines for Erosion and Sedimentation Control Planning," and "Implementation, Processes, Procedures, and Methods to Control Pollution Resulting from All Construction Activity," and "Erosion and Sediment Control-Surface Mining in Eastern United States."
- 4. Do not dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited. Provide acceptable containers for collection and disposal of waste materials, debris, and rubbish.
- D. Erosion, Sediment, and Flood Control: Provide, maintain, and operate temporary facilities to control erosion and sediment releases, and to protect

the Work and existing facilities from flooding during construction period. Meet all local, state, and Federal requirements and obtain necessary permits and approvals as required. Discharges to stormdrains, including discharge from dewatering systems, will not be permitted without the installation of a sediment removal system approved by the Owner.

- 1. The Contractor shall be responsible for maintaining all erosion and sediment control facilities to insure that they continue to function as intended and do not create a health or environmental hazard.
- 2. In the event of expected precipitation events, the Contractor shall remove all erosion or sediment barriers blocking City drains or inlets.
- 3. All sediment barriers installed on City drains and inlets shall be removed immediately upon installation of the final pavement and cleanup.

3.05 STORAGE YARDS AND BUILDINGS

- A. Coordinate requirements with Section 01600, Material and Equipment.
- B. Temporary Storage Yards: Construct temporary storage yards for storage of products that are not subject to damage by weather conditions.
- C. Temporary Storage Buildings:
 - 1. Provide environmental control systems that meet recommendations of manufacturers of equipment and materials stored.
 - 2. Arrange or partition to provide security of contents and ready access for inspection and inventory.
 - 3. Store combustible materials (paints, solvents, fuels) in a well-ventilated and remote building meeting safety standards.
- D. Storage and staging facilities are permitted on private property subject to the review and approval of the Planning and Zoning Department and the issuance of a permit under the provisions of Section 47-19.2 of the Unified Land Development Regulations.
 - 1. Notice to Proceed will not be issued until the final approval is obtained.
 - 2. Staging area sign requirements are provided at the end of this Section.

3.06 ACCESS ROADS AND DETOURS

- A. Construct access roads as shown and within easements, rights-of-way, or Project limits. Utilize existing roads where shown. Alignments for new routes must be approved by PUBLIC WORKS DIRECTOR or Owner.
- B. Maintain drainage ways. Install and maintain culverts to allow water to flow beneath access roads. Provide corrosion-resistant culvert pipe of adequate strength to resist construction loads.
- C. Provide gravel, crushed rock, or other stabilization material to permit access by all motor vehicles at all times.

- D. Maintain road grade and crown to eliminate potholes, rutting, and other irregularities that restrict access.
- E. Coordinate with PUBLIC WORKS DIRECTOR detours and other operations affecting traffic and access. Provide at least 72 hours' notice to PUBLIC WORKS DIRECTOR of operations that will alter access to the site and adjacent private properties.
- F. Where access road crosses existing fences, install and maintain gates.
- G. Upon completion of construction, restore ground surface disturbed by access road construction to original grade. Replace damaged or broken culverts with new culvert pipe of same diameter and material.

3.07 PARKING AREAS

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations.
- B. Provide parking facilities for personnel working on the Project. No employee or equipment parking will be permitted on Owner's existing paved areas, except as specifically designated for Contractor's use.

3.08 VEHICULAR TRAFFIC

- A. Comply with Laws and Regulations regarding closing or restricting use of public streets or highways. No public or private road shall be closed, except by written permission of proper authority. Assure the least possible obstruction to traffic and normal commercial pursuits.
- B. For Project Sections that Pass through a Broward County School Zone:
 - 1. No work is permitted in a school zone while school is in session.
 - 2. Contractor shall plan work accordingly no delay time will be granted to comply with this requirement.
- C. Conduct the Work to interfere as little as possible with public travel, whether vehicular or pedestrian:
 - 1. No two adjacent roadways can be under construction at the same time.
 - 2. At least 75 percent of all roadways shall have a maintained trench surface as described below at all times during the project.
 - 3. Construction in affected roadways shall be completed in sequence so that all improvements are completed, except for final pavement restoration during one continuous period. This includes water and sewer services to the edge of the right-of-way.
- D. Whenever it is necessary to cross, close, or obstruct roads, driveways, and walks, whether public or private, provide and maintain suitable and safe bridges, detours, or other temporary expedients for accommodation of public and private travel.

- E. Road Closures: Maintain satisfactory means of exit for persons residing or having occasion to transact business along route of the Work. If it is necessary to close off roadway or alley providing sole vehicular access to property for periods greater than 2 hours, provide written notice to each owner so affected 3 days prior to such closure. In such cases, closings of up to 4 hours may be allowed. Closures of up to 10 hours may be allowed if a week's written notice is given and undue hardship does not result.
- F. Contractor shall submit MOT forms and/or applications as required by the agency with jurisdiction. The Temporary Modification of Traffic Form provided as a supplement to this Section shall be submitted to the PCM for all requested MOT's in accordance with the provisions of this Section. The form is required for MOT's in streets under City jurisdiction.
- G. Maintenance of traffic is not required if Contractor obtains written permission from Owner and tenant of private property, or from authority having jurisdiction over public property involved, to obstruct traffic at designated point.
- H. In making street crossings, do not block more than one-half the street at a time. Whenever possible, widen shoulder on opposite side to facilitate traffic flow. Provide temporary surfacing on shoulders as necessary.
- I. Maintain top of backfilled trenches, before they are paved, to allow normal vehicular traffic to pass over.
 - 1. Trench maintenance will consist of compacted sub-base with asphalt prime, temporary asphalt, or flowable fill as described in Section 02575, Surface Restoration.
 - 2. Provide temporary access driveways where required.
 - 3. Cleanup operations shall follow immediately behind backfilling.
 - 4. Watering of untreated backfill shall be utilized to control dust as directed by the Engineer until such time as adequate trench maintenance has been achieved.
- J. When flaggers and guards are required by regulation or when deemed necessary for safety, furnish them with approved orange wearing apparel and other regulation traffic control devices.
- K. Notify fire department and police department before closing street or portion thereof. Notify said departments when streets are again passable for emergency vehicles. Do not block off emergency vehicle access to consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, without written permission from fire department. Conduct operations with the least interference to fire equipment access, and at no time prevent such access. Furnish Contractor's night emergency telephone numbers to police department.
- L. Move mailboxes to temporary locations accessible to postal service, and on completion of Work in each area, replace them in their original location and in a condition equal to or better than original.

M. Remove or relocate barricades on designated trash collection days to allow access for trash pickup. If access is completely blocked, the Contractor shall move the affected trash containers to an accessible location and return them after pickup. Mark each container to ensure return to the proper location.

N. Temporary Bridges:

- 1. Construct temporary bridges at all points where maintenance of traffic across pipeline construction is necessary.
- 2. Make bridges over public streets, roads, and highways acceptable to authority having jurisdiction thereover.
- 3. Bridges erected over private roads and driveways shall be adequate for service to which they will be subjected.
- 4. Provide substantial guardrails and suitably protected approaches.
- 5. Provide foot bridges not less than 4 feet wide with handrails and uprights of dressed lumber.
- 6. Maintain bridges in place as long as conditions of the Work require their use for safety of public, except that when necessary for proper prosecution of the Work in immediate vicinity of bridge. Bridge may be relocated or temporarily removed for such period as Engineer may permit.
- O. Detours: Where authority having jurisdiction requires that traffic be maintained over construction work in a public street, road, or highway, and traffic cannot be maintained on original roadbed or pavement, construct and maintain detour around the Work.
- P. Coordinate traffic routing with that of others working in same or adjacent areas.

3.09 CLEANUP PROCEDURES FOR HURRICANE WARNINGS AND WATCHES

A. In the event that the National Oceanographic and Atmospheric Administration (NOAA) issues a hurricane watch for the Fort Lauderdale area, the PUBLIC WORKS DIRECTOR will contact the Contractor informing him that the watch has been established. Once notified of a hurricane watch, the Contractor will remove all unnecessary items from the work area and tie down all remaining supplies, barricades, and movable (under 200 pounds) objects. The PUBLIC WORKS DIRECTOR will determine "necessary" items. If a warning is issued, the Contractor shall complete the clean-up and evacuate the area the same day. The Owner shall not be liable for any costs or delays caused as a result of demobilization or remobilization due to the above.

3.10 CLEANING DURING CONSTRUCTION

- A. In accordance with General Conditions, as may be specified in Specification sections, and as required herein.
- B. Wet down exterior surfaces prior to sweeping to prevent blowing of dust and debris. At least weekly, sweep all floors (basins, tunnels, platforms,

- walkways, sidewalks, driveways, roof surfaces), and pick up all debris and dispose.
- C. Provide approved containers for collection and disposal of waste materials. debris, and rubbish. At least at weekly intervals, dispose of such waste materials, debris, and rubbish offsite.
- D. Thoroughly clean all spilled dirt, gravel, or other foreign material caused by the construction operations from all streets and roads at the conclusion of each day's operation. Sidewalks, unless under construction, shall be kept clear of material, and available for pedestrian use at all times.

PROJECT SIGNS 3.11

- Α. Provide two project signs, painted and mounted as shown on the Drawings and in the following section, at locations to be determined by the Owner or Engineer.
- B. Sign Dimensions:
 - 1. The project sign shall be dimensioned as shown on the Drawings.
 - 2. The staging area sign shall be limited to overall dimensions of 48 inches by 48 inches.

3.12 **SUPPLEMENTS**

- The supplements listed below, following "END OF SECTION," are part of this Α. Specification.
 - 1. Supplement—1, Project Sign Detail, (2 required).
 - Supplement—2, Staging Area Sign Detail. 2.
 - 3. Supplement—3, Temporary Modification of Traffic (MOT) Routing Form.
 - 4. Supplement—4, Door Hanger Notification Template.

END OF SECTION

City of Fort Lauderdale Bid 12100-693



City of Fort Lauderdale Public Works Department Utilities Engineering Division

CITY COMMISSION

Project Name: Pump Stations A-44, A-97 & C-31

Demolition D-45

Project No: 11889 Dean Trantalis – Mayor

Project Cost: Heather Moraitis – District I

Contractor: Steven Glassman – District II

Engineer: Robert McKinzie – District III

Start Date: Ben Sorensen – District IV

Planned Completion Date:

Customer Service: 954/828-8000 City Manager–Lee R. Feldman, ICMA-C



City of Fort Lauderdale Bid 12100-693



City of Fort Lauderdale Infrastructure Rehabilitation Program

Project Name:	11889 - Pump Stations A-44, A-97 & C-31 Demolition,
Planned Compl	etion Date:
Contractor:	
24-Hour Emerg	ency Contact:
City Public Wo	ks Department Customer Service Office 954-828-8000

TEMPORARY MODIFICATION OF TRAFFIC (MOT) ROUTING FORM

DATE:	
APPLICANT/ADDRESS/PHONE:	PERMIT NO
	(PROVIDED BY CITY AT TIME OF PERMIT APPLICATION)
	PROJECT NAME/ADDRESS:
	and submitted as an attachment to the above-referenced permit (hereinafter
 only after issuance of the PERMIT, subjection This form is for MOT's within rights-of-ware rights-of-way under Broward County justification completed with the required signatures as be attached. If work is taking place in County or F 	n does not constitute any approvals by the City. The MOT may be implemented ect to satisfaction of all prerequisite conditions. ay under City of Fort Lauderdale's jurisdiction. If the MOT or detour routes affect urisdiction, the County's form (available on the City website) should also be and attached. If the detours affect FDOT right-of-way, a permit from FDOT must EDOT R/W, an MOT permit is not required from the City. However, PERMIT asked to provide two weeks advance notice of any closures or detours to the
Specific dates and times requested for MO	<u>Γ implementation</u> :
Begin	End
the construction, deliveries, staging areas,	nd address, names of affected streets, why MOT is necessary, nature of if cranes will be used, etc. (staging and storage of materials/equipment ase note if additional sheets have been attached for the description of
are necessary, if flagmen will be provided,	ed on each street, if metered parking spaces will be displaced, if detours if MOT will be full-time (or times of day the MOT is to be in effect) and this request. Please note if additional sheets have been attached for
the description of MOT.	
	rtified worksite traffic control technician or traffic control supervisor (as
there is a conflict with a higher public purp	is found to adversely affect public safety and/or public convenience opose, the APPLICANT may be required to modify the MOT plan or the permanently revoked at any time with reasonable notice from the City.
	provisions of the latest edition of <u>Part IV of the Manual of Uniform Traffidand FDOT Design Standards</u> . Compliance with the requirements of the the APPLICANT.
(APPLICANT)	(Print Name/Title)
As a consideration for the permission grant indemnify and hold harmless the City of Fo the MOT plan approved under the PERMIT	ort Lauderdale for any damages, claims or injuries that may result from
	By: (Company Officer, President, or Authorized Agent)
(Name of Company)	(Company Officer, President, or Authorized Agent)

Project Name:	PERMIT NUMBER:				
	natures in this section (if required). To expedite processing, signatures may be or pdf and provided on separate copies of this page.				
(Date)	Police Department (Patrol Secretary Office) (Required only if MOT includes a detour for any direction of travel) 1300 West Broward Boulevard Tel.: (954) 828-5477 (call for appointment)				
(Date)	Fire-Rescue Department				
	(Required only if MOT includes a detour for any direction of travel) Bill Findland, Assistant Chief 528 NW 2 nd Street				
	Tel.: (954) 828-4351 (call for appointment); Fax: (954) 828-6843				
(Doto)	Maj Shakib/ Studies Section				
(Date)	(Required only if MOT/detour affects County road or intersection) 2300 W. Commercial Boulevard (Please call (954) 847-2655 for appt. Walk-ins NOT accepted)				
After above signatures are collected	d, Applicant should forward the MOT Plan and this routing form to the person listed below.				
(D. (.)					
(Date)	Transportation and Mobility Heslop Daley, Project Engineer				
	290 NE 3 rd Avenue				
	Tel: (954) 828-5734 Fax: (954) 828-3734				
City Manager's signature to be	requested by City Staff only (if signature is required)				
(Date)	City Manager's Office				
	Lee R. Feldman, ICMA-CM, City Manager 100 N. Andrews Avenue, 7 th Floor				
	TOO IN. AHUTEWS AVEITUE, I THOU				

A copy of the PERMIT, this routing form and MOT shall be kept on-site and made available to the City inspector at all times.

This form is for MOT plans associated with private utility projects and private development projects. MOT plans for City Capital Improvement Projects shall be coordinated through Engineering Inspection or the Project Manager. Traffic modifications required for special events shall be arranged through the City's Special Events Coordinator, Jeff Meehan at (954) 828-6705.

Tel.: (954) 828-5013 or Fax: (954) 828-5I21

[CONTRACTOR'S NAME] [CONTRACTOR'S STREET ADDRESS] [CONTRACTOR'S CITY, STATE AND ZIP] [CONTRACTOR'S TELEPHONE NUMBER] [CONTRACTOR'S FAX NUMBER]

MEMORANDUM

TO: RESIDENTS OF [LOCATION OF CONSTRUCTION]

DATE: [CURRENT DATE]

RE: CONSTRUCTION IN YOUR AREA

FROM: [CONTRACTOR'S NAME]

Construction in your area will commence on [date of construction commencement].

The construction area is from [boundary #1] to [boundary #2].

Access to the area will be limited at certain times due to the construction activities. We apologize for any inconvenience and we will do our best to accommodate access to residents.

Thank You,

[Contractor Name]

TANDEROFFE

ΝA ORDINANCE AMENDING THE UNIFIED DEVELOPMENT REGULATIONS OF THE CITY OF FORT LAUDERDALE, FLORIDA, AMENDING SECTION 47-19.2, ACCESSORY BUILDINGS AND STRUCTURES, GENERAL, TO ADD A NEW SUBSECTION ENTITLED "CONSTRUCTION STAGING AREAS" TO PERMIT PROPERTY TO BE USED AS STAGING AREA IN CONNECTION WITH CONSTRUCTION PROJECTS AS A TEMPORARY USE IN ANY ZONING DISTRICT AND PROVIDING REQUIREMENTS AND A PROCESS FOR REVIEW, APPROVAL AND TERMINATION OF APPROVAL.

BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF FORT LAUDERDALE, FLORIDA:

SECTION 1. That Section 47-19.2, Accessory buildings and structures, general, of the Unified Land Development Regulations (hereinafter referred to as "ULDR") of the City of Fort Lauderdale, Florida, is hereby amended to add a new subsection FF as follows:

Sec. 47-19.2. Accessory buildings and structures, general

- purpose construction projects including but not limited to the construction of public rights-of-way, utilities and facilities, may be permitted in all zoning districts as a temporary use, in order to allow for the safe, efficient completion of the project with minimal disruption to existing residents, businesses, and traffic, and to ensure that public services and facilities are available.

 Construction staging materials shall include the parking and placing and storing of construction materials, vehicles, equipment and support facilities required for the construction of a public project. Construction staging areas shall be permitted subject to the following review processes and conditions:
 - 1. Application. An application shall, in addition to the requirements provided in Section 47-24,

PAGE 2

<u>Development Permits and Procedures, include the following:</u>

- A description and sketch dimensioned to scale of the proposed use of the subject property as a construction staging area, including such information as the location and type of construction materials, equipment, support facilities, vehicles, trailers or other construction equipment, storage areas for materials, traffic circulation plan to and from the site, access to the site, location, type of materials and details of any required sign and fencing.
- b. A sketch of the proposed site signage, including all contact information; and the proposed location of the sign.
- <u>C.</u> The time required to complete the public construction project.
- d. A statement signed by the property owner stating that the property owner shall consent to the temporary use of the property for construction staging as provided in the temporary construction permit application and acknowledging that the property owner shall be held responsible for the removal of construction staging materials and debris if the applicant fails to do so upon termination of the temporary public purpose construction staging permit.

2. Standards.

a. A fence of a material, design, and construction that meets Building Code requirements and precludes visibility through the fence, shall be erected around the

PAGE 3

perimeter of the site. The fence shall have a minimum height of 6.5 feet and a maximum height of 10 feet; such height to be determined as part of the Site Plan Level I permit based on what height is necessary to protect adjacent properties.

- b. The site shall be posted with a sign 16 square feet in size adjacent to the street, clearly visible from the right-of-way identifying the project by name, the name of the contractor, and the engineer responsible for construction management, and shall provide 24-hour phone contact information.
- c. Movement of vehicles, storage materials or other activities at the site shall be limited to the hours of 7:30 A.M. to 5:30 P.M. Monday through Friday, unless otherwise specifically approved as provided in the Site Plan Level I permit.
- d. Construction staging areas at the site shall be limited to the activities approved as part of the Site Plan Level I permit and no other activities shall be permitted except as approved by amendment of the Site Plan Level I permit.
- e. Conditions of approval may be imposed if necessary to mitigate the impact on adjacent property such as temporary paving, landscaping, and watering, all in accordance with engineering standards.
- f. A termination date for the temporary construction permit shall be established by the department based on the information provided by the applicant, but an extension of such termination date may be granted if good

cause is shown by filing an amendment to the Site Plan Level I permit.

3. Review process.

- a. Approval of a Site Plan Level I permit as described in Section 47-24.2.
- b. In addition to the review process applicable to a Site Plan Level I permit, the application shall be forwarded to and reviewed by the City's Public Services Department and the Property and Right-of-way Committee.

A recommendation from both entities shall be forwarded to the department and included as part of the review of the Site Plan Level I application.

- 4. Review Criteria. In addition to the review criteria for a Site Plan Level I permit, the following shall apply:
 - a. The proposed plan meets the standards provided in this Section 47-19.2; and
 - b. The plan includes measures to insure there is minimal disruption to existing residents, businesses and traffic in the area.
- 5. Effective date of approval. The approval of a temporary construction staging area application by the department shall not take effect nor shall a permit be issued any sooner than thirty (30) days after approval and then only if no motion is adopted by the city commission seeking to review the application or no appeal is filed as provided in Section 47-26B, Appeals.
- 6. Appeal. If a temporary construction staging permit is denied or is approved with conditions

PAGE 5

- unacceptable to the applicant, the applicant may appeal the decision in accordance with the procedures provided in Section 47-26B., Appeals.
- If, during the course of the construction of the 7. public purpose construction project it is found that activities on the construction staging area site are detrimental to the health, safety and welfare of the public as determined by the City Engineer, the applicant shall be given notice of additional measures that must be taken in order to mitigate the negative impact. If the applicant fails to institute such measures within five (5) calendar days of notice, notice shall be given of a hearing to be held before the City Commission and applicant shall be required to address the impacts associated with the staging area site. If the applicant fails to demonstrate how the negative impacts will be mitigated or fails to institute the measures within the time required by the City Commission, the City Commission may terminate the permit.
- 8. Termination of permit. The temporary construction staging permit shall terminate on the date established by the department or the City Commission as provided in this subsection FF. Upon termination of a temporary construction staging permit the site applicant or property owner shall have thirty (30) days from termination to restore the site to a clean and safe condition with all construction staging materials and debris removed.
- SECTION 2. That Table 1 of Section 47-24, Development Permits and Procedures, is hereby amended to add "public project construction staging area" as a Site Plan Level I review, as shown on the Exhibit attached hereto and made a part hereof.

10. C-02-

PAGE 6

SECTION 3	. That i	if any	claus	e, sec	tion	or oth	er part	of	this	Ordi	nance
	shall	be he	ld inv	alid o	r unc	onstit	utional	by	any	court	of
competent	jurisdi	ction,	the r	emaind	ler of	this	Ordinar	ıce	shall	not	be
affected (thereby,	but s	shall r	emain	in fu	ll for	ce and	eff	ect.		

- <u>SECTION 4</u>. That all ordinances or parts of ordinances in conflict herewith, be and the same are hereby repealed.
- SECTION 5. That this Ordinance shall be in full force and effect ten days from the date of final passage.

PASSED FIRST READING this the day of ______, 2002.
PASSED SECOND READING this the day of ______, 2002

Mayor JIM NAUGLE

ATTEST

City Clerk LUCY MASLIAH

L:\COMM2002\ORD\JUNE4\STAGING.WPD

chart 3

SECTION 47-24. DEVELOPMENT PERMITS AND PROCEDURES

TABLE 1. DEVELOPMENT PERMITS AND PROCEDURES

Permit	Department	Development Review Committee	Planning & Zoning Board (Local Planning Agency)	Historic Preservation Board	City Commission	Board of Adjustment	Criteria for Review
CENTRAL BEACH AREA DISTRICTS - see Section 47-12 and other regulations provided in this Table 1.	-	-	-	-	-	-	1. Adequacy Review Sec. 47-25.2 2. Neighborhood Compatibility Review Sec. 47-25.3
SITE PLAN-LEVEL I DEPARTMENT							
1. Sidewalk cafe	DP		A		CRR/PZ		1. Adequacy Review Sec. 47-25.2 2. Outdoor Uses, Sidewalk Cafe Sec. 47- 19.9
2. Mobile vendor	DP		A	·	CRR/PZ		1. Adequacy Review Sec. 47-25.2 2. Mobile Vendor, Sec. 47-18.22
3. Residential—less than 5 units	DP		A		CRR/PZ		Adequacy Review Sec. 47-25.2
New nonresidential construction—5,000 square feet or less	DP		A		CRR/PZ		Adequacy Review Sec. 47-25.2
5. Modification of waterway lot widths in RS-4.4 & RS-8 Districts	DP		A		CRR/PZ		1. Adequacy Review Sec. 47-25.2 2. Modification of Lot Width, Sec. 47-23.10
Change of use—different operation but does not involve development which requires a Site Plan Level II or higher permit—See Sec. 47-3.5.B.a	DP		A		CRR/PZ or Dept.		Nonconforming Uses, Section 47-3

7. Reuse of nonconforming structure	DP	A	CRR/PZ or Dept.	1. Adequacy Review Sec. 47-25.2, and 2. Neighborhood Compatibility Review Sec. 47-25.3 3. Nonconforming Uses, Section 47-3
8. Continuation of nonconforming status	DP	A	CRR/PZ or Dept.	Nonconforming Uses, Section 47-3
9. Approval of off-site parking	DP	A	CRR/PZ or Dept.	Parking and Loading Sec. 47-20.18
10. Temporary Construction Staging	<u>DP</u>		Δ	Section 47- 19.2.FF.
•••				
SITE PLAN-LEVEL II DEVELOPMENT REVIEW COMMITTEE				

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SECTION 01540

DEMOLITION AND REMOVAL OF EXISTING STRUCTURES AND EQUIPMENT

PART 1 -- GENERAL

1.1 THE REQUIREMENT

- A. This Section covers the demolition, removal, and disposal of existing buildings, structures, pavement, curbs, and sidewalk, removal and disposal of asbestos materials, and any existing equipment including electrical, plumbing, heating and ventilating equipment and piping not required for the operation of the rehabilitated plant as indicated on the Drawings and as specified hereinafter. The CONTRACTOR shall furnish all labor, materials and equipment to demolish buildings and structures and to remove fixtures, anchors, supports, piping and accessories designated to be removed on the Drawings.
- B. The CONTRACTOR shall demolish and remove the existing pump and any existing structure, piping, conduits, electrical equipment, mechanical equipment, or appurtenances or portions thereof, as shown on the Drawings or required to complete the project.
- C. The disposal of all removed items shall be in accordance with all Federal, State and local laws including but not limited to RCRA, Toxic Substance Control Act (STSCA), Hazardous Materials Transportation Act (HMTA), USEPA and the Florida Department of Environmental Protection Solids and Hazardous Waste Section regulations in effect as of the bid date.

1.2 TITLE TO EQUIPMENT AND MATERIALS

- A. CONTRACTOR shall have no right or title to any of the equipment, materials or other items to be removed from the existing buildings or structures unless and until said equipment, materials and other items have been removed from the premises. The CONTRACTOR shall not sell or assign, or attempt to sell or assign any interest in the said equipment, materials or other items until the said equipment, materials or other items have been removed.
- B. CONTRACTOR shall have no claim against the OWNER because of the absence of such fixtures and materials.

1.3 CONDITION OF STRUCTURES AND EQUIPMENT

- A. The OWNER does not assume responsibility for the actual condition of structures and equipment to be demolished and removed.
- B. Conditions existing at the time of inspection for bidding purposes will be maintained by the OWNER so far as practicable.
- C. The information regarding the existing structures and equipment shown on the Drawings is based on visual inspection and a walk-through survey only. Neither the ENGINEER nor the OWNER will be responsible for interpretations or conclusions drawn therefrom by the CONTRACTOR.

PART 2 – PRODUCTS (NOT USED)

PART 3 -- EXECUTION

3.1 DEMOLITION AND REMOVALS

- A. The removal of all equipment and piping, and all materials from the demolition of structure shall, when released by the OWNER and ENGINEER, shall be done by the CONTRACTOR and shall become the CONTRACTOR's property, unless otherwise noted, for disposition in any manner not contrary to the Contract requirements and shall be removed from the site to the CONTRACTOR's own place of disposal.
- B. The Electrical Contractor (Subcontractor) specifically, shall de-energize all panelboards, lighting fixtures, switches, circuit breakers, electrical conduits, motors, limit switches, pressure switches, instrumentation such as flow, level and/or other meters, wiring, and similar power equipments prior to removal. Any electric panels or equipment which are to be retained shall be relocated or isolated by the Electrical Contractor (Subcontractor) specifically, prior to the removal of the equipment specified herein.
- C. The CONTRACTOR shall proceed with the removal of the equipment, piping and appurtenances in a sequence designed to maintain the plant in continuous operation as described in Section 01520, Maintenance of Utility Operations During Construction, and shall proceed only after approval of the ENGINEER.
- D. Any equipment piping and appurtenances removed without proper authorization, which are necessary for the operation of the existing facilities shall be replaced to the satisfaction of the ENGINEER at no cost to the OWNER.
- E. Excavation caused by demolitions shall be backfilled with fill free from rubbish and debris.

3.2 PROTECTION

- A. Demolition and removal work shall be performed by competent experienced workmen for the various type of demolition and removal work and shall be carried out through to completion with due regard to the safety of OWNER employees, workmen on-site and the public. The work shall be performed with as little nuisance as possible.
- B. The work shall comply with the applicable provisions and recommendation of ANSI A10.2, Safety Code for Building Construction, all governing codes, and as hereinafter specified.
- C. The CONTRACTOR shall make such investigations, explorations and probes as are necessary to ascertain any required protective measures before proceeding with demolition and removal. The CONTRACTOR shall give particular attention to shoring and bracing requirements so as to prevent any damage to new or existing construction.
- D. The CONTRACTOR shall provide, erect, and maintain catch platforms, lights, barriers, weather protection, warning signs and other items as required for proper protection of the public, occupants of the building, workmen engaged in demolition operations, and adjacent construction.

- E. The CONTRACTOR shall provide and maintain weather protection at exterior openings so as to fully protect the interior premises against damage from the elements until such openings are closed by new construction.
- F. The CONTRACTOR shall provide and maintain temporary protection of the existing structure designated to remain where demolition, removal and new work is being done, connections made, materials handled or equipment moved.
- G. The CONTRACTOR shall take necessary precautions to prevent dust from rising by wetting demolished masonry, concrete, plaster and similar debris. Unaltered portions of the existing buildings affected by the operations under this Section shall be protected by dust-proof partitions and other adequate means.
- H. The CONTRACTOR shall provide adequate fire protection in accordance with local Fire Department requirements.
- I. The CONTRACTOR shall not close or obstruct walkways, passageways, or stairways and shall not store or place materials in passageways, stairs or other means of egress. The CONTRACTOR shall conduct operations with minimum traffic interference.
- J. The CONTRACTOR shall be responsible for any damage to the existing structure or contents by reason of the insufficiency of protection provided.

3.3 WORKMANSHIP

- A. The demolition and removal work shall be performed as described in the Contract Documents. The work required shall be done with care, and shall include all required shoring, bracing, etc. The CONTRACTOR shall be responsible for any damage which may be caused by demolition and removal work to any part or parts of existing structures or items designated for reuse or to remain. The CONTRACTOR shall perform patching, restoration and new work in accordance with applicable Technical Sections of the Specifications and in accordance with the details shown on the Drawings. Prior to starting of work, the CONTRACTOR shall provide a detailed description of methods and equipment to be used for each operation and the sequence thereof for review by the ENGINEER.
- B. All supports, pedestals and anchors shall be removed with the equipment and piping unless otherwise specified or required. Concrete bases, anchor bolts and other supports shall be removed to approximately 1-inch below the surrounding finished area and the recesses shall be patched to match the adjacent areas. Superstructure wall and roof openings shall be closed, and damaged surfaces shall be patched to match the adjacent areas, as specified under applicable Sections of these Specifications, as shown on the Drawings, or as directed by the ENGINEER. Wall sleeves and castings shall be plugged or blanked off, all openings in concrete shall be closed in a manner meeting the requirements of the appropriate Sections of these Specifications, as shown on the Drawings, and as directed and approved by the ENGINEER.
- C. Materials or items designated to remain the property of the OWNER shall be as hereinafter tabulated. Such items shall be removed with care and stored at a location at the site to be designated by the OWNER.
- D. Where equipment is shown or specified to be removed and relocated, the CONTRACTOR shall not proceed with removal of this equipment without specific prior approval of the

ENGINEER. Upon approval, and prior to commencing removal operations, the equipment shall be operated in the presence of representatives of the CONTRACTOR, OWNER and ENGINEER. Such items shall be removed with care, under the supervision of the trade responsible for reinstallation and protected and stored until required. Material or items damaged during removal shall be replaced with similar new material or item. Any equipment that is removed without proper authorization and is required for plant operation shall be replaced at no cost to the OWNER.

- E. Wherever piping is to be removed for disposition, the piping shall be drained by the CONTRACTOR and adjacent pipe and headers that are to remain in service shall be blanked off or plugged and then anchored in an approved manner.
- F. Materials or items demolished and not designated to become the property of the OWNER or to be reinstalled shall become the property of the CONTRACTOR and shall be removed from the property and legally disposed of.
- G. The CONTRACTOR shall execute the work in a careful and orderly manner, with the least possible disturbance to the public and to the occupants of the building.
- H. In general, masonry shall be demolished in small sections, and where necessary to prevent collapse of any construction, the CONTRACTOR shall install temporary shores, struts, and bracing.
- I. Where alterations occur, or new and old work join, the CONTRACTOR shall cut, remove, patch, repair or refinish the adjacent surfaces to the extent required by the construction conditions, so as to leave the altered work in as good a condition as existed prior to the start of the work. The materials and workmanship employed in the alterations, unless otherwise shown on the Drawing or specified, shall comply with that of the various respective trades which normally perform the particular items or work.
- J. The CONTRACTOR shall finish adjacent existing surfaces to new work to match the specified finish for new work. The CONTRACTOR shall clean existing surfaces of dirt, grease, loose paint, etc., before refinishing.
- K. The CONTRACTOR shall cut out embedded anchorage and attachment items as required to properly provide for patching and repair of the respective finishes.
- L. The CONTRACTOR shall confine cutting of existing roof areas designated to remain to the limits required for the proper installation of the new work. The CONTRACTOR shall cut and remove insulation, etc., and provide temporary weather tight protection as required until new roofing and flashings are installed.
- M. The CONTRACTOR shall remove temporary work, such as enclosures, signs, guards, and the like when such temporary work is no longer required or when directed at the completion of the work.

3.4 MAINTENANCE

A. The CONTRACTOR shall maintain the buildings, structures, and public properties free from accumulations of waste, debris, and rubbish, caused by the demolition and removal operations.

- B. The CONTRACTOR shall provide on-site dump containers for collection of waste materials, debris and rubbish, and he shall wet down dry materials to lay down and prevent blowing dust.
- C. At reasonable intervals during the progress of the demolition and removal work or as directed by the ENGINEER, the CONTRACTOR shall clean the site and properties, and dispose of waste materials, debris and rubbish.

3.5 EQUIPMENT AND MATERIALS RETAINED BY OWNER

- 1. Control panels and electrical equipment and appurtenances
- 2. Pumps, valves and motors

Deliver to City's CMS Building.

3.6 JOB CONDITIONS

- A. The CONTRACTOR shall execute the demolition and removal work to prevent damage or injury to structures, occupants thereof, and adjacent features, which might result from falling debris or other causes, and so as not to interfere with the use, and free and safe passage to and from adjacent structures.
- B. Closing or obstructing of roadways adjacent to the work by the placement or storage of materials will not be permitted. All operations shall be conducted with a minimum interference to traffic on these ways. The CONTRACTOR shall provide temporary rock driveways or access roads as may be required to maintain access by all property owners to their property.
- C. The CONTRACTOR shall repair damage done to facilities to remain, or to any property belonging to the OWNER.
- D. The CONTRACTOR shall carry out his operations so as to avoid interference with operations and work in the existing facilities.
- E. At least 48 hours prior to commencement of a demolition or removal, the CONTRACTOR shall notify the ENGINEER in writing of his proposed schedule therefor. No removals shall be started until it is acceptable to the ENGINEER. CONTRACTOR shall notify all property owners affected by the demolition work at least 48 hours prior to the start of any demolition activities.
- F. The CONTRACTOR shall comply with and have documented Confined Space Entry Space Procedures available at the project at all times as required by OSHA 29 CFR 1910.146. The CONTRACTOR shall also comply with any state and/or local requirements if more restrictive than the federal requirements.
- G. The CONTRACTOR shall comply with safe working practices for abrasive blasting, cleaning, burning, welding, and handling lead based and non-lead based coated steel and all health and safety regulations and requirements of Federal OSHA 29 CFR 1926.62, Interim Final Rule on Lead in Construction, state and local health regulatory agencies, Material Safety Data Sheets (MSDS), and the paint and abrasive manufacturers. This requirement shall be accomplished without supervision from the OWNER. The CONTRACTOR shall provide portable sanitary toilet and wash-up facilities at the work site.

- H. The CONTRACTOR shall comply with all local, state, and federal regulations concerning emissions or disposal of solid, particulate, liquid, or gaseous matter as a result of the demolition operations. This compliance shall be accomplished without supervision from the OWNER. No additional compensations for changes in the laws, regulations, or the interpretation thereof shall be granted by the OWNER. No burning of trash on the site shall be permitted. Any fines imposed on the OWNER by any regulatory agency as a result of the CONTRACTOR's non-compliance with environmental regulations shall be paid or reimbursed by the CONTRACTOR.
- I. Welding or Cutting Operations: Provide adequate worker protection in accordance with the instructions in ANSI Z49.1, "Safety in Welding and Cutting" and in OSHA 29 CFR 1926.62, Interim Final Rule on lead in construction.
- J. Explosives shall not be used in the execution of this Contract.

3.7 DUST CONTROL

A. The CONTRACTOR shall use temporary enclosures and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Existing electrical and mechanical equipment to remain shall be protected from damage, dust, and debris.

3.8 PAINT CONTAINING LEAD

A. The CONTRACTOR shall comply with all Federal, State, and local regulations regarding the handling and disposal of paint containing lead.

- END OF SECTION -



City of Fort Lauderdale W



Roadway Enhancements Coming to Bayview Drive

Creating a connected, safe, and beautiful community for our neighbors

What's Happening?

The City of Fort Lauderdale is improving Bayview Drive between Sunrise and Commercial Boulevards by making it safer and more accessible for our pedestrians, bicyclists, and motorists.

(954) 828-8000 www.fortlauderdale.gov





Planned Improvements

- New bicycle lane
- Asphalt repairs
- New pavement striping

Cost

\$980,455

Expected Completion

December 2018

Project Number

12317

Contractor

All County Paving, Inc.

Fort Lauderdale City Commission



CONSTRUCTION SIGN REQUEST FORM

Rev: 1 | Revision Date: 8/3/17 | Print Date: 8/3/17

To request a new 4' x 8' exterior sign for a construction project, email this completed form to strategiccommunications@fortlauderdale.gov. Please allow at least three business days to receive a draft sign. Once the PDF is finalized, Public Works should provide the project contractor with the final PDF file to have the contractor fabricate and install the sign. Please also make arrangements with the contractor to have the sign removed when the project is complete.

	Example	Project info
Project #:	P12319	
Project title:	Stormwater Improvement Project	
Project overview:	The City is making numerous improvements throughout the Progresso neighborhood to enhance safety and access for our neighbors.	
Planned improvements:	New sidewalksRelocating fencesReconstructing swales	
Neighborhood:	Progresso	
Project area:	NW 6 th Street between 7 th and 9 th Avenues	
Physical construction start date on site:	January 25, 2016	
Expected completion:	Sept. 22 OR Summer 2016	
Cost:	\$420,168	
Contractor:	ASP LLC	





CONSTRUCTION FLIER REQUEST FORM

Rev: 1 | Revision Date: 8/3/17 | Print Date: 8/3/17

To request a new 8 ½ x 11" flier for an upcoming construction project, email this completed form to strategiccommunications@fortlauderdale.gov. Please allow at least three business days to receive a draft flier. Once the PDF is finalized, Public Works should provide the project contractor with the final PDF file to have the contractor distribute copies of the flier to neighbors.

	Example	Project info
Project #:	P12319	
Project title:	Stormwater Improvement Project	
Project overview:	The City is making numerous improvements throughout the Progresso neighborhood to enhance safety and access for our neighbors.	
Planned improvements:	New sidewalksRelocating fencesReconstructing swales	
Project area:	NW 6 th Street between 7 th and 9 th Avenues	
Will there be an impact to water service?	No OR Yes- water will be shut off from 9 a.m. to 4 p.m.	
Will there be an impact to sewer service?	No OR Yes- neighbors cannot use appliances during day	
Lane Closures (if applicable):	Westbound Las Olas will be closed from 8 th Ave to 15 th Ave.	
Road Closure (if applicable):	SE 2 nd St. will be closed from Andrews Ave. east to Federal	
Closure timing	Is the closure 24 hour? Overnight? During the day?	
Physical construction start date on site:	January 25, 2016	
Expected completion:	Sept. 22 OR Summer 2016	
Contractor:	ASP LLC	

SECTION 01780 CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

- 1. Submit prior to application for final payment.
 - a. Record Documents.
 - b. Special Bonds, Special Guarantees, and Service Agreements.
 - c. Consent of Surety to Final Payment.
 - d. Releases or Waivers of Liens and Claims.
 - e. Releases from Agreements.
 - f. Final Application for Payment: Submit in accordance with procedures and requirements stated in Section 01025, Measurement and Payment.
 - g. Spare Parts, Special Tools and Extra Materials: As required by individual Specification sections.

B. Subcontractor Identification Form:

- 1. Submit form with final pay request.
- 2. Submit a separate form for each subcontractor used.
- 3. For Capital Improvement Projects, submit form along with final pay request to the PUBLIC WORKS DIRECTOR
- 4. Form is attached as a Supplement to this Section.

1.02 RECORD DOCUMENTS

A. Quality Assurance:

- 1. Furnish qualified and experienced person, whose duty and responsibility shall be to maintain record documents.
- 2. Accuracy of Records:
 - a. Coordinate changes within record documents, making legible and accurate entries on each sheet of Drawings and other documents where such entry is required to show change.
 - b. Purpose of Project record documents is to document factual information regarding aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive site measurement, investigation, and examination.
- 3. Make entries within 24 hours after receipt of information that a change in the Work has occurred.

Prior to submitting each request for progress payment, request PUBLIC WORKS DIRECTOR's review and approval of current status

of record documents. Failure to properly maintain, update, and submit record documents may result in a deferral by PUBLIC WORKS DIRECTOR to recommend whole or any part of Contractor's Application for Payment, either partial or final.

1.03 RELEASES FROM AGREEMENTS

- A. Furnish Owner written releases from property owners or public agencies where side agreements or special easements have been made, or where Contractor's operations have not been kept within the Owner's construction right-of-way.
- B. In the Event Contractor is Unable to Secure Written Releases:
 - 1. Inform PUBLIC WORKS DIRECTOR of the reasons.
 - 2. Owner or its representatives will examine the site, and Owner will direct Contractor to complete the Work that may be necessary to satisfy terms of the side agreement or special easement.
 - Should Contractor refuse to perform this Work, Owner reserves right to have it done by separate contract and deduct cost of same from Contract Price, or require Contractor to furnish a satisfactory Bond in a sum to cover legal claims for damages.
 - 4. When Owner is satisfied that the Work has been completed in agreement with Contract Documents and terms of side agreement or special easement, right is reserved to waive requirement for written release if: (i) Contractor's failure to obtain such statement is due to grantor's refusal to sign, and this refusal is not based upon any legitimate claims that Contractor has failed to fulfill terms of side agreement or special easement, or (ii) Contractor is unable to contact or has had undue hardship in contacting grantor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 MAINTENANCE OF RECORD DOCUMENTS

A. General:

- 1. Promptly following commencement of Contract Times, secure from Engineer at no cost to Contractor, one complete set of Contract Documents. Drawings will be full size.
- 2. Delete Engineer title block and seal from all documents.
- 3. Label or stamp each record document with title, "RECORD DOCUMENTS," in neat large printed letters.
- 4. Record information concurrently with construction progress and within 24 hours after receipt of information that change has occurred. Do not cover or conceal Work until required information is recorded. Contractor is responsible for providing "red-lined" markups of all changes including revised locations of buried features.
- 5. Contractor shall provide original signed and sealed "as-built" drawings of the new pump station upon completion of construction. He shall

employ a professional land surveyor licensed in the state of Florida. All work shall be in accordance with City of Fort Lauderdale surveying standards and per NAVD 88.

B. Preservation:

- 1. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- 2. Make documents and Samples available at all times for observation by PCM or Engineer.

C. Making Entries on Drawings:

- 1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe change by graphic line and note as required.
 - a. Color Coding:
 - 1) Green when showing information deleted from Drawings.
 - 2) Red when showing information added to Drawings.
 - 3) Blue and circled in blue to show notes.
- Date entries.
- 3. Call attention to entry by "cloud" drawn around area or areas affected.
- 4. Legibly mark to record actual changes made during construction, including, but not limited to:
 - Depths of various elements of foundation in relation to finished first floor data if not shown or where depth differs from that shown.
 - b. Horizontal and vertical locations of existing and new Underground Facilities and appurtenances, and other underground structures, equipment, or Work. Reference to at least two measurements to permanent surface improvements.
 - Location of internal utilities and appurtenances concealed in the construction referenced to visible and accessible features of the structure.
 - d. Locate existing facilities, piping, equipment, and items critical to the interface between existing physical conditions or construction and new construction.
 - e. Changes made by Addenda and Field Orders, Work Change Directive, Change Order, Written Amendment, and Engineer's written interpretation and clarification using consistent symbols for each and showing appropriate document tracking number.
- 5. Dimensions on Schematic Layouts: Show on record drawings, by dimension, the centerline of each run of items such as are described in previous subparagraph above.
 - a. Clearly identify the item by accurate note such as "cast iron drain," "galv. water," and the like.
 - b. Show, by symbol or note, vertical location of item ("under slab," "in ceiling plenum," "exposed," and the like).
 - c. Make identification so descriptive that it may be related reliably to Specifications.

3.02 FINAL CLEANING

- A. At completion of the Work or of a part thereof and immediately prior to Contractor's request for certificate of Substantial Completion; or if no certificate is issued, immediately prior to Contractor's notice of completion, clean entire site or parts thereof, as applicable.
 - 1. Leave the Work and adjacent areas affected in a cleaned condition satisfactory to Owner and PCM.
 - 2. Remove grease, dirt, dust, paint or plaster splatter, stains, labels, fingerprints, and other foreign materials from exposed surfaces.
 - 3. Repair, patch, and touch up marred surfaces to specified finish and match adjacent surfaces.
 - 4. Clean all windows.
 - 5. Clean and wax wood, vinyl, or painted floors.
 - 6. Broom clean exterior paved driveways and parking areas.
 - 7. Hose clean sidewalks, loading areas, and others contiguous with principal structures.
 - 8. Rake clean all other surfaces.
 - 9. Replace air-handling filters and clean ducts, blowers, and coils of ventilation units operated during construction.
 - 10. Leave water courses, gutters, and ditches open and clean.
- B. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.
- C. Meet all requirements of Section 02575, Surface Restoration.

3.03 SUPPLEMENTS

- A. The supplements listed below, following "END OF SECTION," are part of this Specification.
 - 1. Subcontractor Identification Form.

END OF SECTION



SUBCONTRACTOR IDENTIFICATION FORM

This form shall be completed by all City of Fort Lauderdale Prime Contractors who subcontracted out any portion of his/her City contract. The form shall be forwarded to the City of Fort Lauderdale's Public Services Department with the prime contractor's final pay request. A separate form is to be completed and submitted for each subcontractor. Please telephone (954) 761-5057 or 761-5083, if you have any questions regarding this form.

1)	CITY OF FORT LAUDERDALE PROJECT NO						
2)	PROJECT DESCRIPTION						
3)	SUBCONTRACTOR						
,							
	Business Name						
	Address						
	Telephone & Fax Nos.						
	Email Address/Company Wesbsite (if applicable)						
4)	SUBCONTRACTOR'S PRINCIPAL OFFICER						
5)	CLASSIFICATION OF WORK SUBCONTRACTED OUT						
6)	COST OF WORK SUBCONTRACTED OUT						
7)	Please check the item(s) which properly identify the ownership status of the subcontractor's firm:						
	☐ Subcontractor firm is not a MBE or WBE						
	Subcontractor firm is a MBE, as at least 51 percent is owned and operated by one or more socially and economically-disadvantaged individuals:						
	☐ American Indian ☐ Asian ☐ Black ☐ Hispanic ☐ White						
	Subcontractor firm is a WBE, as at least 51 percent is owned and operated by one or						
	☐ American Indian ☐ Asian ☐ Black ☐ Hispanic ☐ White						
8)	PRIME Contractor						
	NAME & TITLE OF PRIME CONTRACTOR'S REPRESENTATIVE COMPLETING						

THIS FORM (Please Print)

CONTRACT CLOSEOUT

01780-SIF-1

DEMOLITION & ABANDONMENT	OF PUMP STATIONS A-44,	A-97 & C-31	PROJECT 11889
(Telephone No.)	(Fax No.)	(Email Ado	lress)
SIGNATURE			
DATE	or's Representative		

SECTION 02200 SITE PREPARATION

PART 1 GENERAL

1.01 DEFINITIONS

- A. Interfering or Objectionable Material: Trash, rubbish, and junk; vegetation and other organic matter, whether alive, dead, or decaying; topsoil.
- B. Clearing: Removal of interfering or objectionable material lying on or protruding above ground surface.
- C. Grubbing: Removal of vegetation and other organic matter including stumps, buried logs, and roots greater than 2 inches caliper to a depth of 12 inches below subgrade.
- D. Scalping: Removal of sod without removing more than upper 3 inches of topsoil.
- E. Stripping: Removal of topsoil remaining after applicable scalping is completed.
- F. Project Limits: Areas, as specified, within which Work is to be performed.

1.02 QUALITY ASSURANCE

A. Obtain Engineer's approval of staked clearing, grubbing, and stripping limits, prior to commencing clearing, grubbing, and stripping.

1.03 SCHEDULING AND SEQUENCING

A. Prepare site only after adequate erosion and sediment controls are in place. Limit areas exposed uncontrolled to erosion during installation of temporary erosion and sediment controls.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. Clear, grub, and strip areas actually needed for waste disposal, borrow, or site improvements within limits specified.
- B. Property obstructions which are to remain in-place, such as buildings, sewers, drains, water or gas pipes, bridges, etc., are to be carefully protected from damage.
- C. Do not injure or deface vegetation that is not designated for removal. All branches potentially interfering with construction operations shall be pruned

SITE PREPARATION 02200-1

prior to starting work and following approval of the Engineer and the City of Fort Lauderdale Urban Forester.

3.02 LIMITS

- A. As Follows, but not to Extend beyond Project Limits.
 - 1. Excavation Including Trenches: 5 feet beyond top of cut slopes or shored wall.
 - 2. Fill:
 - a. Clearing and Grubbing: 5 feet beyond toe of permanent fill.
 - b. Stripping and Scalping: 2 feet beyond toe of permanent fill.
 - 3. Waste Disposal:
 - a. Clearing: 5 feet beyond perimeter.
 - b. Scalping and Stripping: Not required.
 - c. Grubbing: Around perimeter as necessary for neat finished appearance.
 - 4. Overhead Utilities:
 - a. Clearing, Grubbing Scalping, and Stripping: Wherever grading is required, including borrow pits, ditches, etc.
 - 5. Other Areas: As shown.
- B. Remove rubbish, trash, and junk from entire area within Project limits.

3.03 TEMPORARY REMOVAL OF INTERFERING PLANTINGS

- A. Remove and store, as specified in Section 02930, Trees, Plants, and Ground Covers, shrubs and trees that are not designated for removal but do interfere with construction or could be damaged by construction activities.
- B. Photograph and document location, orientation, and condition of each plant prior to its removal. Record sufficient information to uniquely identify each plant removed and to assure accurate replacement.

3.04 CLEARING

- Clear areas within limits specified.
- B. Fell trees so that they fall away from facilities and vegetation not designated for removal.
- C. Cut stumps not designated for grubbing 12 inches below the ground surface.
- D. Cut off shrubs, brush, weeds, and grasses to within 2 inches of ground surface.

3.05 GRUBBING

A. Grub areas within limits specified.

3.06 SCALPING

- A. Do not remove sod until after clearing and grubbing is completed and resulting debris is removed.
- B. Scalp areas within limits specified.

3.07 STRIPPING

- A. Do not remove topsoil until after scalping is completed.
- B. Strip areas within limits to minimum depths specified. Do not remove subsoil with topsoil.
- C. Stockpile strippings, meeting requirements of Section 02911, Soil Preparation, for topsoil, separately from other excavated material.

3.08 TREE REMOVAL OUTSIDE CLEARING LIMITS

- A. Remove Within Project Limits:
 - 1. Dead, dying, leaning, or otherwise unsound trees that may strike and damage Project facilities in falling.
 - 2. Trees designated by Engineer.
- B. Cut stumps off flush with ground, remove debris, and if disturbed, restore surrounding area to its original condition.

3.09 TREE TOPPING

- A. Top trees designated by Engineer so remaining portion will not strike facilities in falling. Where topping will remove more than 1/2 of a tree's crown, remove entire tree.
- B. Treat wounds resulting from topping in accordance with standard horticultural practice to preserve the natural character of the tree.

3.10 PRUNING

- A. Remove branches below the following heights:
 - 1. Sixteen feet above roadways and shoulders.
 - 2. Nine feet above sidewalks.
 - 3. Six feet above roofs.
- B. Prune only after planting and in accordance with standard horticultural practice to preserve the natural character of the plant. Perform in presence of the Engineer. Remove all dead wood, suckers, and broken or badly bruised branches. Use only clean, sharp tools. Do not cut lead shoot.

3.11 DISPOSAL

- A. Clearing and Grubbing Debris:
 - 1. Woody debris may be chipped. Chips may be sold to Contractor's benefit or used for landscaping onsite as mulch or uniformly mixed with topsoil, provided that resulting mix will be fertile and not support combustion. Maximum dimensions of chipped material used onsite shall be 1/4-inch by 2 inch. Dispose of chips that are unsaleable or unsuitable for landscaping or other uses with unchipped debris.
 - 2. Limit offsite disposal of clearing and grubbing debris to locations that are approved by federal, state, and local authorities, and that will not be visible from Project.
- B. Scalpings: As specified for clearing and grubbing debris.
- C. Strippings:
 - 1. Dispose of strippings that are unsuitable for topsoil or that exceed quantity required for topsoil offsite or in waste disposal areas approved by Engineer.
 - 2. Stockpile topsoil in sufficient quantity to meet Project needs. Dispose of excess strippings as specified for clearing and grubbing.

END OF SECTION

SECTION 02240 DEWATERING

- PART 1 GENERAL (NOT USED)
- PART 2 PRODUCTS (NOT USED)
- PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall be responsible for design, installation, and operation of a dewatering system to dewater specified excavations.
 - 1. The dewatering system shall be designed in accordance with the Best Management Practices (BMP's) adopted by FDEP.
 - 2. Inspection and control of dewatering system operations will be in accordance with the FDEP guidelines established in the Florida Erosion and Sediment Control Inspector's Manual (current edition).
- B. Continuously manage and control excavation water recharge in order to facilitate and not impede construction activities at all times, including weekends, holidays, and during periods of work stoppages, and furnish and install, and operate, a contingency backup dewatering system to maintain control of excavation water levels to facilitate construction (i.e.; no construction delays).

3.02 SUBMITTALS

- A. Submittals shall be made in accordance with the requirements specified in Section 01300, Submittals, and the requirements of this Section.
- B. Provide name, address, and phone numbers of all subcontractors.
- C. The Contractor shall submit a Dewatering Best Management Practices (BMP) Plan prior to the start of excavation expected to include dewatering operations. The Plan shall provide detailed descriptions of dewatering procedures to be utilized to meet the requirements of this Section. Methodologies to control dewatering discharge contamination include, but are not limited to:
 - 1. Holding tanks of adequate size and volume.
 - 2. Wellpointing systems.
 - 3. Sump pumping systems.
 - 4. Chemical precipitation of particulates.
 - 5. Filter systems and siltation controls.
 - 6. Outfall booms.

- D. The Contractor shall provide a Site Health and Safety Plan and Activity Hazard Analysis (AHA) for contaminated soil as specified in Section 02250, Affected Soil and Liquid Disposal, and/or groundwater as specified in this Section, to include the following:
 - 1. A written description of the proposed method for temporary stockpiling, transportation, and disposal of all wastes.
 - 2. Copy of permits of disposal facilities.
 - 3. Certification of disposal of all wastes.
 - 4. Directions to the nearest hospital and phone number.
 - 5. Emergency contact phone numbers.
 - 6. Laboratory analyses and sampling plan required for transportation and disposal of all wastes in accordance with applicable federal, state, and local requirements.
- E. Upon Completion of Remediation Activities, the Following shall be Provided:
 - 1. Copy of manifests for all wastes leaving the site.
 - 2. Copy of the laboratory analyses results from all sampling activities.
 - 3. Copy of closure reports that may be required.

3.03 SURFACE WATER CONTROL

- A. Remove surface runoff controls when no longer needed.
- B. Seal off or berm catch basins in the area of construction to prevent discharge of untreated dewatering effluent or runoff from unstabilized construction areas into storm drains.
- C. All drain inlets or catch basins used for dewatering discharge shall be provided with silt and sediment removal barriers as approved by the Engineer.
 - 1. All barriers shall be cleaned regularly to avoid sediment discharge into the storm drain system.
 - 2. Construction activities will be stopped at no cost to the Owner until sediment controls are properly maintained, installed, and in compliance with the dewatering permit.
 - 3. All barriers shall be removed upon issuance of a hurricane warning.

3.04 DEWATERING SYSTEMS

- A. Design, furnish, and install, operate, and maintain a dewatering system of sufficient size and capacity to permit excavation and subsequent construction activities in water-free conditions, and to lower and maintain the excavation area groundwater level a minimum of 2 feet below the lowest point of excavation. The dewatering system shall be designed and operated such that the system continuously maintains excavations water levels so as to maintain the excavation water level in order to allow for the initiation and completion of excavation backfill compaction and restoration activities.
- B. Dewatering systems shall include, but is not limited to, furnishing and installing wells or well points, and or other equipment and appurtenances as

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may be necessary, including system components or equipment, installed outside the outermost perimeter of the excavation limits, and sufficiently below lowest point of excavation, to maintain the specified or required groundwater elevation.

- C. Open trench pumping maybe permitted upon the approval of the Engineer.
- D. Design and Operate Dewatering Systems:
 - 1. To prevent loss of ground as water is removed.
 - 2. To avoid inducing settlement or damage to existing facilities, completed Work, or adjacent property.
 - 3. Avoid surface water pollution or discharge of sediment to storm drain systems or waterways.
- E. Provide supplemental ditches and sumps only as necessary to collect water from local seeps. Do not use ditches and sumps as primary means of dewatering. The Contractor shall not direct any flow of water over pavement surfaces. Discharge of water shall be conducted as approved by the local, state, and federal agencies and the Engineer.
- F. Provide controls to prevent surface water from entering excavation pits, trenches, or stockpiled materials.

3.05 PIPELINES CONSTRUCTED UNDER WATER

- A. In the event that it is found that the water in a trench cannot be lowered by ordinary means, i.e., well points and pumps, an alternate construction method may be proposed by the Contractor. Complete details, specifications, manufacturer's descriptive literature, installation lists and any other pertinent data regarding the proposed alternate method shall be submitted as an alternate by the Contractor to the Engineer within 5 calendar days of the time that the Contractor anticipates using such alternate method.
- B. If the Engineer approves the alternate method in writing, it may be used, so long as the Work is performed in a manner which, in the opinion of the Engineer, conforms to the method and procedure as set forth in the information supplied by the Contractor in his original application for use of an alternate method. The Engineer may revoke approval of the alternate method if at any time, in his opinion, the Work is not conforming to any applicable portion of these Specifications.
- C. No pipeline shall be laid under water without approval of the Engineer.
- D. If the dewatering system is eliminated or the effort reduced, and the pipe is laid underwater, additional pipe zone material will be required as backfill to the water table elevation, or to the level it was reduced to.

3.06 DISPOSAL OF WATER

A. All water generated, pumped, or removed from excavations as a result of excavation dewatering activities shall be collected, containerized, and managed prior to discharge and or treatment at an approved discharge point

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or facility, in accordance with Broward County Code of Regulation, Sections 27-27, 27-193(a), 27-193(b)(3)a and 27-196. Contractor shall secure, obtain, and pay for all necessary local, state, and federal permits, licenses, fees, and or approvals to discharge water or perform onsite or offsite treatment and disposal. Treat water collected by dewatering operations as required by regulatory agencies, prior to discharge.

- B. Discharge water as permitted, and in regulatory compliance with Contractor obtained discharge permits/licenses.
 - All discharge activities shall be performed so as to prevent silt and sediment discharge and eliminate any soil erosion or flooding, or otherwise damage existing facilities, completed Work, or adjacent property.
 - 2. Maximum allowable turbidity of discharges to surface waters or storm drains will be 10 NTU's.
 - 3. Sump discharges cannot be discharged directly to storm drains or surface waters without treatment.
- C. Affected storm sewer outfalls shall be protected with floating silt booms as approved by the Broward County Department of Environmental Planning and Protection (BCDPEP) and the Engineer. All accumulated debris resulting from the dewatering discharge collecting in the boom shall be removed on a daily basis.
- D. Visible silt plumes emanating from the area around the outfalls will be considered a failure of the silt and sediment removal measures and may result in a Notice of Violation issued by BCDPEP. The Contractor will be responsible for all fines associated with the violation of the dewatering permit conditions issued to the Contractor.
- E. Failure to control dewatering discharges as described above and as detailed in the Florida Erosion and Sediment Control Inspector's Manual, may result in an order to cease dewatering operations until the discharge problems are corrected. No claims will be accepted for costs or delays associated with unacceptable dewatering discharge practices.

3.07 WELL POINT REMOVAL

- A. Well point holes shall be filled with sand which shall be washed into the hole.
- B. Well point holes located within asphalt pavement surfaces or concrete pavements, shall be filled with sand to the subgrade. The remaining hole shall be filled with nonshrink grout.

3.08 CONTAMINATED GROUNDWATER AND DISPOSAL REQUIREMENTS

A. If Contractor suspects, witnesses, or identifies groundwater contamination at any time during the performance of the Work, Contractor shall notify the Engineer immediately. Contractor shall be responsible for sample collection and laboratory analysis.

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- B. If analytical testing (by contractor) documents and indicates elevated concentrations above FDEP action levels (Chapter 62-777, Florida Administrative Code) dewatering operations will be suspended until appropriate treatment and or construction measures can be implemented. Contractor shall not resume operations until notified to do so in writing by Broward County. There shall be no delay or mobilization claim. In addition, the local agency will be immediately notified via telephone and in writing by the Engineer. Dewatering activities in the area will not proceed until review of the matter with the local agency is resolved and written authorization is issued.
- C. Treatment of the groundwater will include three options depending on the magnitude of the contamination in the trench or as determined by the Engineer: Granular Activated Carbon (GAC) Treatment Vessels, Mobile Air Stripping Units, or Vacuum Truck Removal and Disposal or other method as approved by the County. The Contractor will provide a submittal list of all qualified groundwater remediation subcontractors for GAC vessel treatment/portable air stripping unit and vacuum truck disposal including phone numbers, contact names, and addresses prior to start of construction. The selected groundwater treatment/recycling facility for hauling contaminated groundwater shall also be identified.
- D. If contaminated groundwater in the dewatering trench is encountered, the remediation operations will begin once local agency approval is obtained.
- E. Effluent water from the treatment system will be analyzed by the contractor to confirm that concentrations are below regulatory limits.
- F. A Dewatering Plan describing the dewatering approach, groundwater monitoring, and remediation alternative is shall be provided by the contractor.

END OF SECTION

SECTION 02260 EXCAVATION SUPPORT AND PROTECTION

- PART 1 GENERAL (NOT USED)
- PART 2 PRODUCTS (NOT USED)
- PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall be responsible to design, provide, and maintain shoring, sheeting, and bracing as necessary to support the sides of excavations and to prevent detrimental settlement and lateral movement of existing facilities, adjacent property, and completed Work.
- B. Consider all available geotechnical information available when designing the excavation support system.

3.02 REMOVAL OF EXCAVATION SUPPORT

- A. Remove excavation support in a manner that will maintain support as excavation is backfilled.
- B. Do not begin to remove excavation support until support can be removed without damage to existing facilities, completed Work, or adjacent property.
- C. Remove excavation support in a manner that does not leave voids in the backfill.

3.03 TRENCHES

A. For trench excavation exceeding 5 feet in depth, provide adequate safety system meeting requirements of the Occupational Safety and Health Administration's (OSHA), Trench Safety Standards, 29 C.F.R., S.1926.650, Subpart P, and all subsequent revisions or updates adopted by the Department of Labor and Employment Security.

END OF SECTION

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SECTION 02315 FILL AND BACKFILL

PART 1 GENERAL

1.01 DEFINITIONS

- A. Prepared Ground Surface: Ground surface after completion of required demolition, clearing and grubbing, scalping of sod, stripping of topsoil, excavation to grade, and subgrade preparation.
- B. Completed Course: A course or layer that is ready for next layer or next phase of Work.
- C. Lift: Loose (uncompacted) layer of material.
- D. Geosynthetics: Geotextiles, geogrids, or geomembranes.
- E. Well-Graded:
 - 1. A mixture of particle sizes with no specific concentration or lack thereof of one or more sizes.
 - 2. Does not define numerical value that must be placed on coefficient of uniformity, coefficient of curvature, or other specific grain size distribution parameters.
 - 3. Used to define material type that, when compacted, produces a strong and relatively incompressible soil mass free from detrimental voids.
- F. Influence Area: Area within planes sloped downward and outward at 60-degree angle from horizontal measured from:
 - 1. 1-foot outside outermost edge at base of foundations or slabs.
 - 2. 1-foot outside outermost edge at surface of roadways or shoulder.
 - 3. 0.5-foot outside exterior at spring line of pipes or culverts.
- G. Borrow Material: Material from required excavations or from designated borrow areas on or near site.
- H. Selected Backfill Material: Materials available onsite that Engineer determines to be suitable for specific use.
- I. Imported Material: Materials obtained from sources offsite, suitable for specified use.

- Structural Fill: Fill materials as required under structures, pavements, and other facilities.
- K. Embankment Material: Fill materials required to raise existing grade in areas other than under structures.

PART 2 PRODUCTS

2.01 EARTHFILL

- A. Excavated material from required excavations and designated borrow sites, free from rocks larger than 3 inches, from roots and other organic matter, ashes, cinders, trash, debris, and other deleterious materials.
- B. Material containing more than 10 percent gravel, stones, or shale particles is unacceptable.
- C. Provide imported material of equivalent quality, if required to accomplish Work.

2.02 GRANULAR FILL

- A. Use graded aggregate base material of uniform quality throughout, substantially free from vegetable matter, shale, lumps and clay balls, and having a Limerock Bearing Ratio value of not less than 100.
- B. Aggregate is composed of limestone, marble, or dolomite.
- C. Use material retained on the No. 10 sieve composed of aggregate meeting the following requirements:
 - 1. Soundness Loss, Sodium, Sulfate: AASHTO T 104, 15 percent.
 - 2. Percent Wear: AASHTO T 96 (Grading A) 45 percent.

Sieve Size	Percent by Weight Passing
2 inch	100
1-1/2 inch	95 to 100
¾ inch	65 to 90
3/8 inch	45 to 75
No. 4	35 to 60
No. 10	25 to 45
No. 50	5 to 25
No. 200	0 to 10

2.03 WATER FOR MOISTURE CONDITIONING

A. Free of hazardous or toxic contaminates, or contaminants deleterious to proper compaction.

FILL AND BACKFILL

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2.04 FOUNDATION STABILIZATION ROCK

- A. General: Materials may be either limerock, shell rock, cemented coquina, or shell base sources approved by the Department.
- B. Specific Requirements for Limerock: For limerock, carbonates of calcium and magnesium shall be at least 70 percent. Materials having a plasticity index of more than ten or a liquid limit greater than 40 shall not be used as a stabilizer. The gradation of limerock shall be FDOT No. 57 stone or such that 97 percent of these materials will pass a 3-1/2 inch sieve.
- C. Crushed Shell: Crushed shell for this use shall be mollusk shell (i.e., oysters, mussels, clams, cemented coquina). Steamed shell will not be permitted.
 - 1. This shell shall Meet the Following Requirements:
 - a. Material having a plasticity index of more than ten or a liquid limit greater than 40 shall not be used as a stabilizer.
 - b. At least 97 percent by weight of the total material shall pass a 3-1/2 inch sieve and at least 50 percent by weight of the total material shall be retained on the No. 4 sieve.
 - c. Not more than 20 percent by weight of the total material shall pass the No. 200 sieve. The determination of the percentage passing the No. 200 sieve shall be by washing only.
 - d. In the event that the shell meets the above requirements without crushing, crushing will not be required.

PART 3 EXECUTION

3.01 GENERAL

- A. Keep placement surfaces free of water, debris, and foreign material during placement and compaction of fill and backfill materials.
- B. Place and spread fill and backfill materials in horizontal lifts of uniform thickness, in a manner that avoids segregation, and compact each lift to specified densities prior to placing succeeding lifts. Slope lifts only where necessary to conform to final grades or as necessary to keep placement surfaces drained of water.
- C. During filling and backfilling, keep level of fill and backfill around each structure and buried tank even.
- D. If Pipe, Conduit, Duct Bank, or Cable is to be Laid Within Fill or Backfill:
 - 1. Fill or backfill to an elevation 2 feet above top of item to be laid.
 - 2. Excavate trench for installation of item.
 - 3. Install bedding, if applicable, as specified in Section 02320, Trench Backfill.
 - 4. Install item.
 - 5. Backfill pipe zone and remaining trench, as specified in Section 02320, Trench Backfill, before resuming filling or backfilling specified in this Section.

E. Tolerances:

- 1. Final Lines and Grades: Within a tolerance of 0.1 foot, unless dimensions or grades are shown or specified otherwise.
- 2. Grade to establish and maintain slopes and drainage as shown. Reverse slopes are not permitted.
- F. Settlement: Correct and repair any subsequent damage to structures, pavements, curbs, slabs, piping, and other facilities, caused by settlement of fill or backfill material.

3.02 BACKFILL UNDER AND AROUND STRUCTURES

A. Under Facilities: Within influence area beneath structures, slabs, pavements, curbs, piping, conduits, duct banks, and other facilities, backfill with granular fill, unless otherwise shown. Place granular fill in lifts of 6-inch maximum thickness and compact each lift to a density of at least 100 percent of the maximum density as determined by AASHTO T99, Method C.

3.03 FILL

- A. Outside Influence Areas Beneath Structures, Pavements, Curbs, Slabs, Piping, and Other Facilities: Unless otherwise shown, place earthfill as follows:
 - 1. Allow for proper thickness of topsoil where required.
 - 2. Maximum 8-inch thick lifts.
 - 3. Place and compact fill across full width of embankment.
 - 4. Compact to a density of at least 80 percent of the maximum density as determined by AASHTO T99, Method C.
 - 5. For the outer layer of all fill where plant growth will be established, DO NOT COMPACT. Leave this layer in a loose condition to a minimum depth of 6 inches.
 - 6. Dress completed embankment with allowance for topsoil, crest surfacing, and slope protection, where applicable.

3.04 SITE TESTING

A. Gradation:

- 1. One sample from each 1,500 tons of finished product or more often as determined by Engineer, if variation in gradation is occurring, or if material appears to depart from Specifications.
- 2. If test results indicate material does not meet Specification requirements, terminate material placement until corrective measures are taken.
- 3. Remove material placed in Work that does not meet Specification requirements.
- B. In-Place Density Tests: In accordance with AASHTO T99, Method C. During placement of materials, test as follows:
 - 1. Earthfill: One test per 400 feet of pipe run.

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- 2. Granular Fill: One test per 400 feet of pipe run.
- 3. Foundation Stabilization Rock: One test per lift.

3.05 REPLACING OVEREXCAVATED MATERIAL

- A. Replace excavation carried below grade lines shown or established by Engineer as follows:
 - 1. Beneath Footings: Granular fill.
 - 2. Beneath Fill or Backfill: Same material as specified for overlying fill or backfill.
 - 3. Beneath Slabs-On-Grade: Granular fill.
 - 4. Trenches:
 - Unauthorized Overexcavation: Either foundation stabilization rock or granular pipe base material, as specified in Section 02320, Trench Backfill.
 - b. Authorized Over-excavation: Foundation stabilization rock.
 - 5. Permanent Cut Slopes (Where Overlying Area is Not to Receive Fill or Backfill):
 - a. Flat to Moderate Steep Slopes (3 to 1, Horizontal Run: Vertical Rise or Flatter): Earthfill.
 - b. Steep Slopes (Steeper than 3 to 1):
 - 1) Correct over-excavation by transitioning between over-cut areas and designed slope adjoining areas, provided such cutting does not extend offsite or outside easements and right-of-ways, or adversely impacts existing facilities, adjacent property, or completed Work.
 - 2) Backfilling over-excavated areas is prohibited unless, in Engineer's opinion, backfill will remain stable, and overexcavated material is replaced as compacted earthfill.

END OF SECTION

SECTION 02316 EXCAVATION

PART 1 GENERAL

1.01 QUALITY ASSURANCE

A. Provide adequate survey control to avoid unauthorized over-excavation.

1.02 WEATHER LIMITATIONS

A. Material excavated during inclement weather shall not be used as fill or backfill until after material drains and dries sufficiently for proper compaction.

1.03 SEQUENCING AND SCHEDULING

- A. Clearing, Grubbing, and Stripping: Complete applicable Work specified in Section 02200, Site Preparation, prior to excavating.
- B. Contractor shall call the utility companies 72 hours before excavation, see Section 01040, Coordination for each utility company phone number and contact person.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. Excavate to lines, grades, and dimensions shown and as necessary to accomplish Work. Excavate to within tolerance of plus or minus 0.1 foot except where dimensions or grades are shown or specified as maximum or minimum. Allow for forms, working space, granular base, topsoil, and similar items, wherever applicable. Trim to neat lines where concrete is to be deposited against earth.
- B. It shall be the Contractor's responsibility to notify business establishments and residents not less than 72 hours prior to construction. Contractor shall, wherever necessary, provide temporary sidewalks and driveway entrances at his own expense, including safe bridges over trenches and fencing around excavations for pedestrian protection.
- C. Provide adequate survey control to avoid unauthorized overexcavation. Do not overexcavate without written authorization of Engineer. If the Contractor excavates beyond the limits shown or specified, the Contractor shall replace such excavation at his own expense. Replace overexcavated material as specified in Section 02315, Fill and Backfill.
- D. Where muck, rock, clay, or other material within the limits of excavation is unsuitable in its original position, excavate such material to the cross-sections

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shown or specified. Backfill with suitable material and shape to the required cross-section.

E. Remove or protect obstructions as shown on the Drawings.

3.02 UNCLASSIFIED EXCAVATION

A. Excavation is unclassified. Complete all excavation regardless of the type, nature, or condition of the materials encountered.

3.03 TRENCH WIDTH

A. Minimum Width of Trenches:

- 1. Single Pipes, Conduits, Direct-Buried Cables, and Duct Banks:
 - a. Less than 4-Inch Outside Diameter or Width: 18 inches.
 - b. Greater than 4-Inch Outside Diameter or Width: 18 inches greater than outside diameter or width of pipe, conduit, direct-buried cable, or duct bank.
- 2. Multiple Pipes, Conduits, Cables, or Duct Banks in Single Trench: 18 inches greater than aggregate width of pipes, conduits, cables, duct banks, plus space between.
- 3. Increase trench widths by thicknesses of sheeting, if used.
- 4. The maximum trench width shall not exceed the minimum stated width of the trench unless approved by the Engineer. Restoration for excavation beyond the minimum required width shall be at the Contractor's sole expense.

3.04 EMBANKMENT AND CUT SLOPES

- A. Shape, trim, and finish cut slopes to conform with lines, grades, and crosssections shown, with proper allowance for topsoil or slope protection, where shown.
- B. Remove stones and rock that exceed 3-inch diameter and that are loose and may roll down slope. Remove exposed roots from cut slopes.
- C. Round tops of cut slopes in soil to not less than a 6-foot radius, provided such rounding does not extend offsite or outside easements and right-of-ways, or adversely impacts existing facilities, adjacent property, or completed Work.

3.05 STOCKPILING EXCAVATED MATERIAL

- A. Stockpile excavated material that is suitable for use as fill or backfill until material is needed.
- B. Post signs indicating proposed use of material stockpiled. Post signs that are readable from all directions of approach to each stockpile. Signs should be clearly worded and readable by equipment operators from their normal seated position.

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- C. Confine stockpiles to within easements, rights-of-way, and approved work areas. Do not obstruct roads, streets, public thoroughfares, or access to fire hydrants.
- D. Do not stockpile excavated material adjacent to trenches and other excavations unless excavation sideslopes and excavation support systems are designed, constructed, and maintained for stockpile loads.
- E. Do not stockpile excavated materials near or over existing facilities, adjacent property, or completed Work, if weight of stockpiled material could induce excessive settlement.

3.06 DISPOSAL OF SPOIL

- A. Dispose of excavated materials, which are unsuitable or exceed quantity needed for fill or backfill, offsite.
- B. Dispose of debris resulting from removal of underground facilities as specified in Section 02220, Demolition, for demolition debris.
- C. Dispose of debris resulting from removal of organic matter, trash, refuse, and junk as specified in Section 02200, Site Preparation, for clearing and grubbing debris.

END OF SECTION

SECTION 02518 WATER SERVICE CONNECTIONS

PART 1 GENERAL

1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this Section:
 - 1. American Society for Testing and Materials (ASTM):
 - a. A120, Pipe, Steel, Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless for Ordinary Uses.
 - b. B32, Standard Specification for Solder Metal.
 - c. B88, Standard Specification for Seamless Copper Water Tube.
 - d. D3350, Standard Specification for Polyethylene Plastics Pipe and Fittings Material.
 - 2. Federal Specification (FS):
 - a. WW-P-406, Pipe, Steel (Seamless and Welded For Ordinary Use).
 - b. WW-V-54D, Valve, Gauge, Bronze (125, 150, and 200 Pounds, Screwed Flanged, Soldered End, for Land Use).
 - 3. American Water Works Association (AWWA): C800, Underground Service Line Valves and Fittings.

PART 2 PRODUCTS

2.01 SERVICE CONNECTION

- A. Furnish components same size as nominal designation of service pipe. For example, a 2-inch connection may consist of, but may not be limited to:
 - 1. Two-inch corporation stop.
 - 2. Two-inch angle valve.
 - 3. Two-inch tees, bends, and adapters.
 - 4. Two-inch ball valve.
 - 5. Two-inch meter couplings.
- B. Single and double service connections shall be 1-½ inch diameter tubing, reducing to 1 inch at the meter stop. Larger diameters shall be as shown on the Drawings. Unless shown on the Drawings, all meter stops shall be 1 inch with outlet size based on meter size.
- C. All fittings and components to be provided with Mueller 110 compression joint, Ford Quick joint, or approved equal.

2.02 **SERVICE SADDLES**

Mainline Material	Characteristics	Manufacturer
DI or PVC Pressure Pipe	Double-strap; Mueller tap; neoprene gaskets; double stainless steel straps, epoxy coated	

2.03 **CORPORATION STOPS**

Service Size	Characteristics	Manufacturer & Model
2 inch	Brass AWWA I.P thread at inlet and conductive compression connection for CTS OD tubing including the stainless steel liner Mueller No. 506141	Mueller No. B-25028; or equal
1-1/2 inch	Brass AWWA I.P thread at inlet and conductive compression connection for CTS OD tubing including the stainless steel liner Mueller No. 506139	Mueller No. B-25028; or equal
1 inch	Brass AWWA I.P thread at inlet and conductive compression connection for CTS OD tubing including the stainless steel liner Mueller No. 504385	Mueller No. B-25028; or equal

2.04 COUPLINGS

Service Size	Characteristics	Manufacturer & Model
All Sizes	Three-part union; copper-to-copper for connecting new copper service pipe to existing copper service pipe; other coupling as required to connect new copper service to existing other-than-copper pipe; compression connection outlet	Mueller or Ford compression connection or equal

FLEXIBLE COUPLINGS 2.05

Characteristics: Straight cast couplings. A.

B. Manufacturer: Smith-Blair; Model No. 441.

UNIONS 2.06

Α. Characteristics: Copper-to-copper union.

B. Manufacturers:

- Mueller Co.; Model H-15400. 1.
- 2. Hays Manufacturing Co.; Model 5615.

MISCELLANEOUS FITTINGS 2.07

Α. Characteristics: Miscellaneous fittings, reducers, and adapters all with Mueller No. 110 compression connection, Ford Quick Joint; or equal.

B. Manufacturers:

- 1. Mueller Co.:
 - H-15381 Service Tee.
 - H-15343 Y Branch.
 - H-15526 Quarter Bend.
- 2. Hays Manufacturing Co.

ANGLE METER STOPS 2.08

Service Size	Characteristics	Manufacturer & Model
2 inch	Ground key angle meter stop, conductive compression for CTS OD tubing, including the stainless steel liner Mueller No. 506141, and Mueller No. 110 compression connection	Mueller No. H-14277; or equal
1-1/2 inch	Ground key angle meter stop, conductive compression for CTS OD tubing, including the stainless steel liner Mueller No. 506139, and Mueller No. 110 compression connection	Mueller No. H-14277; or equal
1 inch	Ground key angle meter stop, conductive compression for CTS OD tubing, including the stainless steel liner Mueller No. 504385, and Mueller No. 110 compression connection	Mueller No. H-14259; or equal

2.09 **BALL VALVES**

Service Size	Characteristics	Manufacturer & Model
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Service Size	Characteristics	Manufacturer & Model
3 inches or less	Bronze body, quarter turn	B-25209 Mueller 300 Ball Curb Valve with 110 compression connection; or equal

2.10 PRESSURE REDUCING VALVES

Manufacturer shall be Mueller Co.; Model H-9300, No. 2, 2 inches with strainer, or equal where shown on the Drawings.

2.11 METER BOXES, VAULTS, AND COVERS

Service Size	Characteristics	Manufacturer & Model
All Services	Straight-wall HDPE with cast iron reading lid; 17 inches by 30 inches minimum for 1.5- and 2-inch services 13 inches by 24 inches for all smaller services	Associated Plastics, Inc.; or

2.12 **METERS**

Service Size	Characteristics	Manufacturer & Model
All Services	Meters to be supplied by OWNER	_

2.13 **COPPER TUBING**

Size: 3/4-inch and 1-inch service connections. Α.

B. Characteristics:

- 1. Type K, soft, seamless.
- Conform to ASTM B88. 2.
- 3. Commercially pure wrought copper solder joint fittings.
- Joints:
 - a. 95-5 coreless wire solder.
 - Conform to ASTM B32, Grade 95 TA.

POLYETHYLENE PLASTIC PIPE 2.14

Size: 3/4-, 1-, 1-1/2-, and 2-inch services. A.

B. Characteristics:

- Manufactured from ultra-high molecular weight, high density polyethylene 3408.
- 2. Conforming to ASTM 2737.
- 3. Working Pressure: 200 psi.
- 4. Standard dimension ratio of 9.
- C. Manufacturer shall be Phillips Products Co.; Driscopipe 5100; or equal.
- D. All PE tubing shall have a No. 12-gauge, single-strand, coated, copper wire wrapped around the pipe or on top of the pipe fastened with a No. 12-gauge coated, copper wire every 10 feet.

PART 3 EXECUTION

3.01 GENERAL

- A. Install service connections, excluding meters, during or after construction of the main.
- B. Install complete service with angle stop installed in the meter box with meter end plugged.
- C. Water Meters: Installed by others.
- D. Depth of cover over the service pipe shall be minimum 30 inches.
- E. No connection shall be made to the main until pressure and bacteriological tests have been conducted and approved by the Owner.

3.02 CONNECTION TO MAIN

- A. Clean exterior of main of dirt and other foreign matter that may impair the quality of the completed connection. Disinfect all fittings in chlorine solution prior to assembly. See Section 02519, Disinfection of Water Systems, for disinfection requirements.
- B. Place service clamp at desired location.
- C. Clamp by tightening alternate nuts progressively.
- D. Do not place service clamp within 1 foot of pipe joint, or another clamp.
- E. Make taps with adapters for the size main being tapped.
- F. All connections to mains shall be made under the direction of the OWNER.
- G. All meter service connections shall be bronze from a plug valve. No gate valves shall be used on services 2 inches or less.

H. For Existing Services:

- Remove and dispose of old meter boxes where directed, fill and restore area to match surroundings. Abandon the old service and properly terminate open ends. The Contractor shall be compensated for removal and replacement of meter boxes under the appropriate Bid items.
- 2. Where the existing meter and box are to be maintained, connect the new services with appropriate fittings to the existing meter.
- I. Test for leaks and flush new piping to remove debris.

3.03 UNDERCROSSING OF HARD SURFACE ROADS

- A. Bore or jack undercrossings, except where new water mains and other work is being performed.
- B. PE service tubing shall be installed in a Schedule 40 PVC or SDR PE casing under all roadways to a distance of one foot beyond the edge of pavement.

3.04 COPPER TUBING

- A. Cut square ends, ream clean, flare, and makeup tightly.
- B. Prevent the tube from kinking or buckling on short radius bends. If tube should kink or buckle, cut out kinked or buckled sections and splice with brass fitting.

3.05 POLYETHYLENE PLASTIC PIPE

A. Install in conformance with manufacturer's recommendations.

3.06 METER BOXES

A. Installation:

- 1. Construct enclosures plumb, and flush with existing ground surface unless shown otherwise.
- 2. Use standard extension sections to adjust to grade.
- 3. Meter boxes to be installed in sidewalk or 2-1/2 feet from the right-of-way line.
- 4. Place lightly compacted earth backfill inside meter box to depth shown.
- 5. Backfill around meter vaults as specified in Section 02320, Trench Backfill.
- 6. Install piping such that the meter can be installed in a horizontal position with dial at required depth below cover.
- 7. Meters will be installed by the OWNER.
- 8. Corporation Stops: OPEN position.
- 9. Angle Stops: CLOSED position.

3.07 TESTING

- A. Inspect service connections for leakage under normal system pressure and in conjunction with the testing of new water mains. Joints shall be watertight before acceptance.
- B. Test Duration: As specified in Section 02500, Conveyance Piping General.
- C. Inspect for leaks and repair before backfilling and final testing.

3.08 DISINFECTION OF SERVICE CONNECTIONS

- A. Disinfection of water service connections will be performed in conjunction with the disinfection of the water main in accordance with the provisions of Section 02519, Disinfection of Water Systems.
- B. Flush new tubing before connecting to existing tubing or meter stop, by opening corporation stop, allowing water to run for 2 minutes.
- C. Extra chlorine will be put into the system by Owner during service connection transfers to provide adequate disinfection capacity when above procedures are executed.

END OF SECTION

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SECTION 02632 STORM DRAIN AND SANITARY SEWER PIPING

PART 1 GENERAL

1.1 DELIVERY, STORAGE, AND HANDLING

- A. The storage of pipe at the Project site shall be done in accordance with pipe manufacturer's recommendations and with the approval of the ENGINEER.
- B. Marking at Plant: Mark each pipe and fitting at plant. Include date of manufacture, manufacturer's identification, specification standard, diameter of pipe, pipe class, and other information required for type of pipe
- C. Pipe, specials, and fittings received at Project site in damaged condition will not be accepted.
- D. Pipe and fittings shall not be stored on rocks or gravel, or other hard material that might damage pipe. This includes storage area and along pipe trench.
- E. Gasket Storage: Store rubber gaskets in cool, well-ventilated place and do not expose to direct rays of sun. Do not allow contact with oils, fuels, petroleum, or solvents.

F. Handling:

- 1. Pipe shall be protected during handling against impact, shock, and falling.
- 2. Heavy canvas, or nylon slings of suitable strength shall be used for lifting and supporting materials. Do not use chains or cables.
- 3. Lifting pipe during unloading or lifting into trench shall be done using two slings placed at quarter point of pipe section. Pipe may be lifted using one sling near center of pipe, provided pipe is guided to prevent uncontrolled swinging and no damage will result to pipe or harm to workmen. Slings shall bear uniformly against pipe.

PART 2 PRODUCTS

4.1 PIPE AND FITTINGS

A. As specified on the Data Sheets located at the end of this Section as a supplement. C-900 PVC pipe as specified in Section 02500, CONVEYANCE

STORM DRAIN AND SANITARY SEWER PIPING

- PIPING GENERAL, may be substituted for the PVC pipe specified in this Section.
- B. Damaged storm drain piping shall be replaced with the same size piping using materials as specified in this Section.

4.2 JOINTS

A. As specified on the Data Sheets located at the end of this Section as a supplement.

4.3 SERVICE AND DRAIN CONNECTIONS

- A. Pipe and fittings for individual service connection shall be of one type of material throughout. No interchanging of pipe and fittings allowed. Long-radius bends shall be used for changes in directions, unless approved otherwise by ENGINEER.
- B. All sewer service connections shall be PVC.
- C. Residential Service: 6 inch.
- D. Commercial Service, Including Motel and Apartments: 6 inch, unless shown otherwise.
- E. Cleanouts and Covers:
 - PVC for non-traffic areas as shown on the Drawings.
 - 2. No cleanouts are to be installed in the sidewalk, unless approved by the ENGINEER.
 - 3. Cast iron valve box and cover required for installation in driveways, sidewalks, swales or traffic areas, USF 7615 (FC); or equal.

4.4 CLOSED CIRCUIT TELEVISION (CCTV) EQUIPMENT

- A. The CCTV camera with rotating lens or pan and tilt shall be color and one specifically designed and constructed for such inspections. Lighting and camera quality shall be suitable to allow a clear, in-focus picture of a minimum of 6 inches to the entire inside periphery of the sewer pipe. The camera shall have a minimum resolution capability of 350 lines per inch. The camera shall record in VHS T 120 format. Do not use long play as quality is not acceptable.
- B. Color television monitors shall be provided. Monitors shall have a resolution capability of no less than 350 lines per inch. Continuously displayed on the monitors as part of the video presentation shall be the date of the survey, number designation of the manhole section being surveyed, and a continuous forward or reverse readout of the camera distance from the manhole of reference. Picture quality and definition shall be to the

STORM DRAIN AND SANITARY SEWER PIPING

- satisfaction of the OWNER's representative and if unsatisfactory, equipment shall be replaced at the CONTRACTOR's expense.
- C. A Polaroid type camera shall be available for making still photos for reproduction.
- D. CCTV inspection of sewers to be horizontally is required prior to excavation to verify lateral locations.

4.5 PIPE BEDDING AND PIPE ZONE MATERIAL

A. Granular material as specified in Section 02320, TRENCH BACKFILL.

PART 3 EXECUTION

5.1 GENERAL

- A. Notify ENGINEER at least 2 weeks prior to field fabrication of pipe or fittings.
- B. Furnish feeler gauges of proper size, type, and shape for use during installation for each type of pipe furnished.
- C. Distributing Materials: Place materials along trench only as will be used each day, unless otherwise approved by ENGINEER. Placement of materials shall not be hazardous to traffic or to general public, obstruct access to adjacent property, or obstruct others working in area.

5.2 PREDIGGING AND RELOCATIONS OF WATER MAIN

- A. The CONTRACTOR is responsible to relocate and protect water mains that are within the construction limits of sewers, manholes, laterals, and appurtenances. Water mains shown on the drawings were located based on record drawings and general installation procedures. In certain instances it may be necessary to relocate the water main horizontally or vertically because the actual location is too close to a structure or conflicts with the new sewer main.
- B. At some locations the pre-digging of a water main is called out on the Drawings. However, some water mains may have to be relocated as a result of information gathered during the CONTRACTOR's excavation for the new sewers.
- C. In both instances, the CONTRACTOR is to expose the water main and provide the invert elevation and physical dimensions of the water main and adjacent structures to the ENGINEER. After review of the information, the ENGINEER will direct the CONTRACTOR how to proceed with the relocation.

STORM DRAIN AND SANITARY SEWER PIPING

- D. When the CONTRACTOR is directed to relocate the water main it shall be accomplished by installing four 45-degree bends, two solid sleeves, and approximately 30 feet of PVC or DI pipe, depending on the existing material.
 - 1. The complete installation shall have all restrained joints including the connections to the existing pipe.
 - 2. The installation shall be cleaned and disinfected in accordance with the provisions of Section 02519, DISINFECTION OF WATER SYSTEMS.
- E. The CONTRACTOR may request a pre-dig and payment will be made only if the ENGINEER agrees that the situation justifies the need.
- F. In the instance where the CONTRACTOR does not pre-dig, but the ENGINEER decides that the water main should be relocated, payment will be made only for the relocation.
- G. In the instance where the CONTRACTOR does pre-dig, but the actual information reveals to the ENGINEER that the water main should not be relocated, payment will be made only for the pre-digging.
- H. Only water mains 2 inches and larger shall be considered for payment. Water mains and services smaller than 2 inches in diameter shall be considered incidental to the installation of the new sewers and be relocated at the sole cost of the CONTRACTOR.

5.3 EXAMINATION

- A. Verify size, material, joint types, elevation and horizontal location of existing pipeline to be connected to new pipeline or new equipment.
- B. Damaged Coatings and Linings: Repair using coating and lining materials in accordance with manufacturer's instructions.
- C. Repairs to Reinforced Concrete Pipe section will be allowed, only if approved in writing by ENGINEER. Damaged pipe which, in opinion of ENGINEER, cannot be repaired, will be rejected and removed from the Project site.

5.4 EXCAVATION

- A. Excavate pipe trenches as specified in Section 02316, EXCAVATION.
- B. The amount of trench length permitted to be open at one time shall not extend more than 400 feet of the pipe laying operations, unless approved by the ENGINEER.
- C. Place and compact bedding material as specified in Section 02320, TRENCH BACKFILL.

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5.5 PIPE PREPARATION AND HANDLING

- A. Pipe Distribution: Do not distribute more than 1 week's supply of materials in advance of laying, unless otherwise approved by ENGINEER.
- B. Inspect all pipe and fittings prior to lowering into trench to ensure no cracks, broken, or otherwise defective materials are being used.
- C. Clean ends of pipe thoroughly. Remove foreign material and dirt from inside of pipe and keep clean during and after laying.
- D. Use proper implements, tools, and facilities for the safe and proper protection of the work.
- E. Lower pipe into the trench in such a manner as to avoid any physical damage to the pipe. Remove all damaged pipe from the jobsite. Do not drop or dump pipe into trenches under any circumstances.

5.6 INSTALLATION OF PIPE, FITTINGS, AND APPURTENANCES

A. General:

- Keep trench dry until pipe laying and joining are completed. Take
 precautions to prevent "uplift" or floating of pipe prior to completion of
 backfill operation. If the excavation cannot be effectively dewatered the
 CONTRACTOR shall propose alternate pipe installation methodology
 for approval by the ENGINEER prior to proceeding. All requirements of
 Section 02320, TRENCH BACKFILL, will remain in effect.
- 2. Pipe laying shall proceed upgrade with spigot ends pointing in direction of flow.
- 3. When field cutting or machining pipe is necessary, use only tools and methods recommended by pipe manufacturer and approved by ENGINEER.
- 4. Excavate bell holes at each joint to permit correct assembly and inspection of entire joint.
- 5. Pipe shall be laid accurately to line and grade. Establish line and grade for pipe by use of lasers. Check for alignment and grade after joint has been made.
- 6. Measure for grade at pipe invert, not at top of pipe.
- 7. Pipe invert may deviate from line or grade up to 1/2 inch for line and 1/4 inch for grade, provided that finished pipe line will present a uniform bore, and such variation does not result in a level or reverse sloping invert, or less than minimum slope shown. As-built information will be collected on a daily basis as provided in Section 01040, COORDINATION. Pipe runs with less than the required slope will be required to be removed and replaced at the CONTRACTOR'S expense.

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- 8. Pipe bedding shall form a continuous and uniform bearing and support for the pipe barrel between joints. Pipe shall not rest directly on the bell or pipe joint.
- 9. Prevent entry of foreign material into gasketed joints. The presence of debris in the main will require correction.
- 10. Use gasket lubricant as recommended by gasket manufacturer. Assemble joint in accordance with recommendations of manufacturer.
- 11. No pipe shall be laid until the two preceding lengths have been thoroughly embedded in-place, so as to prevent moment or disturbance of the pipe.
- 12. Apply sufficient pressure in making joint to assure that joint is "home" as defined in standard installation instructions provided by pipe manufacturer. Inside joint space shall not exceed 50 percent of pipe manufacturer's recommended maximum allowance.
- 13. Whenever the pipe laying is discontinued, as at night, the unfinished end is to be securely protected from displacement by laying of the banks or from other injury, and a suitable stopper is to be inserted into the pipe end to prevent clogging of the pipe.
- 14. Plug or close off pipes which are stubbed off for manhole, concrete structure, or for connection by others, with temporary watertight plugs.
- 15. Connections between one pipe material and another shall be by means of flexible compression collar, installed in accordance with the manufacture's recommendations, or concrete closure collar.

B. Connection to Structure or Manhole:

- 1. Locate standard pipe joint within 1.5 feet outside face of structure for pipe 18 inches and smaller and within one pipe diameter for pipe 21 inches and larger.
- 2. Connect PVC pipe to manhole or structure with pipe to manhole connector in accordance with manufacturer's recommendations.
- C. Crossing Waterlines: Where sanitary sewer crosses less than 18 inches below waterline, use ductile iron or PVC pressure pipe for crossing or encase in concrete envelope for a minimum distance of 9 feet on each side of waterline.
- D. Concrete Closure Collars: Only use concrete closure collars where shown or authorized by ENGINEER.

E. Service Connections:

- 1. Minimum Slope: 1/8-inch per foot.
- 2. Minimum Trench Depth: 3 feet at property line or on property within permanent sewer easement. ENGINEER will determine required depth at end of line in each case.
- 3. Progress of Construction: Unless otherwise approved by ENGINEER, install service connections not more than 5 days after backfilling of sewer trench in block or equivalent 400-foot section of sewer.

STORM DRAIN AND SANITARY SEWER PIPING

- 4. Service Connection Tees or Wyes: Furnish tee or wye outlets with gasketed type joint or approved adapter to join service connection pipe. Concrete encase tees or wyes deeper than 12 feet. Do not encase joints at ends of tee or wye fittings.
- 5. Disconnecting and Reconnecting Existing Service Connections:
 - a. Locate the existing service connections prior to constructing the tee in the new sewer line.
 - b. First length of pipe out from tee on lateral or main shall not be greater than 3 feet in length.
 - c. Maximum deflection permissible with any one fitting shall not exceed 45 degrees and shall be accomplished with long-radius curves or bends. Short-radius elbows or curves will not be permitted, except by permission of ENGINEER.
 - d. Disconnect existing service connections from existing sewers to be abandoned and reconnect them to the new sewers.
 - e. Make service connection to sewer system at manhole when directed by ENGINEER. Where service connection pipe is connected to manhole or concrete structure, make connection so standard pipe joint is located not more than 1.5 feet from structure.

5.7 BACKFILLING AND COMPACTION

- A. Backfill and compact all pipe trenches as specified in Section 02320, TRENCH BACKFILL.
- B. Repair excavations in roadways as specified in Section 02772, ASPHALT CONCRETE PAVEMENT, or Section 02575, SURFACE RESTORATION.

5.8 WORK STOPPAGE

A. If the Work is stopped on the whole or any part of the trench, and the same is left open for an unreasonable length of time in advance of the construction for any reason except delay in removing obstructions over which the CONTRACTOR has no control, the CONTRACTOR shall, when directed, refill such trench or part thereof and temporarily repave over the same with 8-inch rock base and asphalt cold patch at his own cost and expense, and he shall not again open such trench or part thereof until he is ready to proceed with construction.

5.9 SEWER CLEANING AND CCTV INSPECTION

A. Prior to final acceptance and final manhole-to-manhole inspection of the sewer system by ENGINEER, flush and clean all parts of the system. Remove all accumulated construction debris, rocks, gravel, sand, silt, and other foreign material from the sewer system at or near the closest downstream manhole. If necessary, use mechanical rodding or bucketing equipment.

STORM DRAIN AND SANITARY SEWER PIPING

- B. The following general procedure shall be followed to pressure clean and televise the sewer pipes. The work shall be accomplished completely in one manhole section at a time. A manhole section is defined as the length of pipe connecting two manholes. Internally inspect pipelines by CCTV after the completion of pipeline cleaning and testing. Conduct inspection in presence of ENGINEER.
 - 1. High-pressure clean a manhole section.
 - 2. Inspect the manhole section internally with TV within 3 days of cleaning, and make a log of conditions encountered.
 - 3. Simultaneous with TV inspection make a video tape recording of each manhole section.
 - 4. Take Polaroid or digital photos of the monitor image as required by the ENGINEER.
 - 5. Plug off manhole at ends of line so no flow enters new sewer pipe except that from service connections.
 - 6. Pull camera at uniform rate, stopping to properly document defects. Maximum pull of camera shall not exceed 30 feet per minute.
- C. Provide detailed information on the videotape at each starting manhole and similar information on the sewer logs. At a minimum, provide company name, project name, date of video, street name, manhole number, manhole-to-manhole run, manhole diameter, direction of flow, size of pipe, type of pipe, crew leader name, OWNERS's inspector's name, lateral location (footage from manhole), and direction (north, south, east, or west).
- D. Show sufficient detail to determine cracks in pipe, offset joints, leaking joints, sags and other flaws in pipeline installation. Record location of deficiencies by distance from center of reference manhole.
- E. Upon completion, playback tape in presence of ENGINEER. Any tape not meeting quality standard will be rejected and taping process repeated.
- F. Correct deficiencies in pipe found as a result of video replay. Replace any sewer pipe which has any deficiencies specified. Grouting of leaky joints or damaged pipe on new sewer pipe will not be accepted. Re-inspect the replaced pipe for deficiencies and replace pipe until no deficiencies exist.
- G. Dispose of cleaning water in a manner that will not damage or interfere with adjacent property and in a manner acceptable with ENGINEER and regulatory agencies.

5.10 HYDROSTATIC TEST

A. General:

1. Notify ENGINEER in writing 5 days in advance of testing. Perform testing in presence of ENGINEER.

STORM DRAIN AND SANITARY SEWER PIPING

- Test sections of constructed sewer between stations only after service connections, manholes, and backfilling have been completed. Testing may be done prior to placement of asphaltic concrete or roadway structural section.
- 3. Isolate new pipelines that are connected to existing pipelines. Install pipe plugs as required to allow section of new pipe to be pressure tested.
- 4. Plug wyes, tees, stubs, and service connections with gasketed caps or plugs securely fastened or blocked to withstand internal test pressure. Such plugs or caps shall be removable, and their removal shall provide socket suitable for making flexible jointed lateral connection or extension.
- 5. Furnish testing equipment and perform tests as approved by ENGINEER. Testing equipment shall provide observable and accurate measurement of leakage under specified conditions.
- 6. Provide and bear costs of necessary water required for testing project piping.
- B. Testing Equipment Accuracy: Plus or minus 1/2-gallon of water leakage under specified conditions.
- C. Maximum Allowable Leakage: 0.16 gallons per hour per inch diameter per 100 feet. Include service connection footage in test section, subjected to minimum head specified.

D. Exfiltration Test:

- 1. Hydrostatic Head:
 - At least 6 feet above maximum estimated groundwater level in section being tested.
 - b. No less than 6 feet above inside top of highest section of pipe in test section, including service connections.
- 2. Length of Pipe Tested: Limit length such that pressure on invert of lower end of section does not exceed 30 feet of water column.

E. Infiltration Test:

- 1. Groundwater Level: At least 5 feet above inside top of highest section of pipe in test section, including service connections.
- 2. Visible infiltration will require correction.
- F. Piping with groundwater infiltration rate greater than allowable leakage rate for exfiltration will be considered *defective* even if pipe previously passed a pressure test.
- G. Defective Piping Sections: Replace, and retest as specified.

5.11 LOW PRESSURE AIR TESTING

A. In accordance with ASTM F-1417.

B. General:

- 1. Notify ENGINEER in writing 5 days in advance of testing. Perform testing in presence of ENGINEER.
- Test sections of constructed sewer between stations only after service connections, manholes, and backfilling have been completed. Testing may be done prior to placement of asphaltic concrete or roadway structural section.
- 3. Isolate new pipelines that are connected to existing pipelines. Install pipe plugs as required to allow section of new pipe to be pressure tested.
- 4. Plug wyes, tees, stubs, and service connections with pneumatic plugs. The plug design shall be such that they will hold against the test pressure without external blocking or bracing. Such plugs shall be removable, and their removal shall provide socket suitable for making flexible jointed lateral connection or extension. One of the plugs shall have 3 air hose connections; one for inflating the plug, one for reading the air pressure and one for introducing air into the sealed line.
- Furnish testing equipment and perform tests as approved by ENGINEER. Testing equipment shall provide observable and accurate measurement of leakage under specified conditions. Calibrate gauges with standardized test gauge at start of each testing day. Install compressor, air piping manifolds, gauges, and valves at ground surface.
- 6. Provide pressure release device, such as rupture disc or pressure relief valve, to relieve pressure at 8 psig or less.
- 7. If the groundwater is higher than the top of the pipe, the test pressure shall be increased by 0.43 psi/foot up to five (5) feet above the top of the pipe. For groundwater in excess of 5 feet above the top of the pipe, infiltration testing shall be conducted.
- C. No person shall enter manhole or structure, or occupy area above opening of manhole or structure where pipe is under pressure.
- D. Low pressure air shall be slowly introduced into the sealed line until the internal air pressure reaches 4.0 psig greater than the average back pressure resulting from any groundwater above the pipe. At least two minutes shall elapse to allow the pressure to stabilize.

E. The time required for the internal pressure to decrease from 3.5 to 2.5 psig greater than the average back pressure shall not be less than the time shown for a given pipe diameter:

Pipe Diameter (in.)	Minimum Elapsed Time (min.)
8	7.5
10	9.25
12	11.25
15	14
18	17

F. Defective Piping Sections: Replace, and retest as specified.

5.12 PVC PIPE DEFLECTION TESTING

A. General:

- 1. Test installed gravity PVC pipeline by pulling a mandrel through the main without the use of a mechanical pulling device.
- 2. Perform the test at least 10 days after trench backfill and compaction have been completed.

B. Mandrel:

- 1. Full circle, solid or rigid legged (9 min) steel cylinder with pulling rings at each end.
- 2. Sized to allow an ultimate deflection of less than 5 percent minimum size, 96.67 percent if inside pipe diameter.

C. Correcting Deficiencies:

- 1. Excavate to spring line and replace and re-compact pipe zone material.
- 2. Internal pipe re-rounding or vibration will not be permitted.
- 3. If pipe does not past mandrel test following (1), replace pipe section.

5.13 INTERNAL INSPECTION (LAMPING)

A. Notifications:

- 1. Notify ENGINEER:
 - a. If depth of flow in pipeline exceeds 50 percent of pipe diameter.
 - b. If conditions for lamping activities are found to be unsafe or impractical.

B. Inspection Equipment:

- 1. Allows inspection from surface.
- 2. Equip with:
 - a. Belt-mounted, rechargeable battery and control.

STORM DRAIN AND SANITARY SEWER PIPING

- b. Telescoping Pole: 18 feet long, maximum.
- c. Flood lamps.
- C. ENGINEER will be present during initial inspections to establish quality guidelines. All lamping shall be conducted in the presence of an OWNER's Representative.
- D. Prevent unnecessary disruption of traffic and access to residences or businesses.
- E. Provide one person, in addition to physical inspection crew, to work from surface only.
- F. Record defects that are visible from manhole.

5.14 SUPPLEMENTS

- A. The supplements listed below, following "END OF SECTION," are part of this Specification.
 - 1. Data Sheets.

Number	Title
-03	Polyvinyl Chloride (PVC)
-05	Reinforced Concrete

END OF SECTION

SECTION 02632-03 POLYVINYL CHLORIDE (PVC)	
Item	Description
Pipe: 15-inch diameter and under	ASTM D3034: Standard dimension ratio less than 26, except that the cell classification shall be 12454-B or 12454-C as defined in ASTM D1784.
Pipe: 18 through 24-inch diameter	ASTM F679: Standard dimension ratio less than 18, except that the cell classification shall be 12454-C as defined in ASTM D1784.
Ribbed Profile Pipe: 18- through 36-inch diameter	ASTM F794: Minimum stiffness of 46 psi when tested in accordance with ASTM D2412, except that the cell classification shall be 12454-C as defined in ASTM D1784.
Joints	ASTM D3212 rubber gasketed.
Gaskets	ASTM F477.
	Lubricants: As approved by manufacturer.
Fittings	PVC, gasketed. Provide plug when service piping is not required.
Plugs	Removable. Removal shall provide a socket suitable for making a flexible jointed lateral connection or extension.
Source Quality Control Testing	In accordance with specified ASTM.

END OF SECTION

SECTION 02710 LIMEROCK BASE

PART 1 **GENERAL**

1.01 **DEFINITIONS**

- Completed Course: Compacted, unyielding, free from irregularities, with Α. smooth, tight, even surface, true to grade, line, and cross section.
- Completed Lift: Compacted with uniform surface reasonably true to B. cross-section.

PART 2 **PRODUCTS**

2.01 LIMEROCK BASE ROCK

- Α. The material used in limerock base shall be material classified as Miami Oolite Formation.
- B. The minimum of carbonates of calcium and magnesium in the limerock shall be 70 percent. The maximum percentage of water-sensitive clay material shall be 3.
- C. Limerock material shall be uniform in color and not contain cherty or other extremely hard pieces, or lumps, balls, or pockets of sand or clay size material in sufficient quantities as to be detrimental to the proper bonding, finishing, or strength of the limerock base.
- D. The limerock base shall be uniformly graded from coarse to fine with 97 percent passing a 3-1/2-inch sieve, 80 percent passing a 2-inch sieve. The fine material shall consist entirely of dust of fracture. All crushing or breaking up, which might be necessary in order to meet such size requirements, shall be done before the material is placed on the road.

E. **Physical Qualities:**

- Liquid Limit, AASHTO T89: Maximum 35 percent. 1.
- 2. Nonplastic.
- Limerock material shall have an average limerock bearing ratio (LBR) 3. value of not less than 100.

2.02 SOURCE QUALITY CONTROL

- Contractor: Perform tests necessary to locate acceptable source of materials Α. meeting specified requirements.
- B. Final approval of aggregate material will be based on materials' test results on installed materials.

LIMEROCK BASE 02710-1 CAM #19-0322 C. Should separation of coarse from fine materials occur during processing or stockpiling, immediately change methods of handling materials to correct uniformity in grading.

PART 3 EXECUTION

3.01 SUBGRADE PREPARATION

- A. As specified in Section 02319, Subgrade Preparation.
- B. Obtain Engineer's acceptance of subgrade before placement of limerock base rock.
- C. Do not place base materials on soft, muddy subgrade.

3.02 EQUIPMENT

A. Use mechanical rock spreaders, equipped with a device that strikes off the rock uniformly to laying thickness, capable of producing even distribution. For areas where the use of a mechanical spreader is not practicable, the Contractor may spread the rock using bulldozers or blade graders.

3.03 HAULING AND SPREADING

A. Hauling Materials:

- 1. The limerock shall be transported to the point where it is to be used and dumped on the end of the preceding spread.
- 2. Do not haul over surfacing in process of construction.
- 3. Loads: Of uniform capacity.
- 4. Maintain consistent gradation of material delivered; loads of widely varying gradations will be cause for rejection.

B. Spreading Materials:

- 1. Distribute material to provide required density, depth, grade and dimensions with allowance for subsequent lifts.
- 2. Produce even distribution of material upon roadway without segregation.
- Should segregation of coarse from fine materials occur during placing, immediately change methods of handling materials to correct uniformity in grading.

3.04 CONSTRUCTION OF COURSES

A. General: Complete each lift in advance of laying succeeding lift to provide required results and adequate inspection.

B. Limerock Base:

- 1. Maximum Completed Lift Thickness: 6 inches or equal thickness.
- 2. Completed Course Total Thickness: As shown.
- 3. Spread lift on preceding course to required cross-section.

LIMEROCK BASE 02710-2

- 4. Lightly blade and roll surface until thoroughly compacted.
- 5. Blade or broom surface to maintain true line, grade, and cross-section.

C. Gravel Surfacing:

- 1. Maximum Completed Lift Thickness: 6 inches or equal thickness.
- 2. Completed Course Total Thickness: As shown.
- 3. Spread on preceding course in accordance with cross-section shown.
- 4. Blade lightly and roll surface until material is thoroughly compacted.

3.05 ROLLING AND COMPACTION

- A. Commence compaction of each layer of base after spreading operations and continue until density of 98 percent of maximum density has been achieved as determined by AASHTO T 180.
- B. Roll each course of surfacing until material shall not creep under roller before succeeding course of surfacing material is applied.
- Commence rolling at outer edges of surfacing and continue toward center; do not roll center of road first.
- D. When the material does not have the proper moisture content to ensure the required density, wet or dry, as required. When adding water, uniformly mix it in by disking to the full depth of the course that is being compacted. During wetting or drying operations, manipulate as a unit, the entire width and depth of the course that is being compacted.
- E. Place and compact each lift to required density before succeeding lift is placed.
- F. Bind up preceding course before placing leveling course. Remove floating or loose stone from surface.
- G. Blade or otherwise work surfacing as necessary to maintain grade and cross-section at all times, and to keep surface smooth and thoroughly compacted.
- H. Surface Defects: Remedy surface defects by loosening and rerolling. Reroll entire area, including surrounding surface, until thoroughly compacted.
 - 1. Finished Surface: True to grade and crown before proceeding with surfacing.

3.06 SURFACE TOLERANCES

- A. Finished Surface of Base Course and Leveling Course: Within plus or minus 0.10-foot of grade shown at any individual point.
- B. Compacted Surface of Leveling Course: Within 0.04-foot from lower edge of 10-foot straightedge placed on finished surface, parallel to centerline.

LIMEROCK BASE 02710-3

3.07 DRIVEWAY RESURFACING

- A. Replace gravel surfacing on driveways which were gravel surfaced prior to construction.
- B. Provide compacted gravel surfacing to depth equal to original, but not less than 4 inches.
- C. Leave each driveway in as good or better condition as it was before start of construction.

3.08 FIELD QUALITY CONTROL

- A. In-Place Density Tests:
 - 1. Construct base course so areas shall be ready for testing.
 - 2. Allow reasonable length of time for Engineer to perform tests and obtain results during normal working hours.

3.09 CLEANING

A. Remove excess material; clean stockpile areas of aggregate.

END OF SECTION

SECTION 02761 PAVEMENT MARKING

PART 1 GENERAL

1.01 STANDARD SPECIFICATIONS

A. When referenced in this section, shall mean Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition.

1.02 DELIVER, STORAGE, AND PROTECTION

- A. Packaging and Labeling: All coatings and traffic marking materials shall be shipped in strong containers plainly marked with the weight in pounds per gallon, the volume of coatings and traffic marking materials content in gallons, the color, user information, date of manufacture, LOT, batch and DOT code number. Each batch manufactured shall have a unique number. A true statement of the percentage composition of the pigment, the proportion of pigment to vehicle, and the name and address of the manufacturer, also shall be shown. The label shall warn the user of any special handling or precautions of the material, as recommended by the manufacturer. Any package not so marked will not be accepted for use under these Specifications.
- B. Storage: Any coatings and traffic marking materials which, although inspected and approved at the point of manufacture, hardens or livers in the containers so that it cannot be readily broken up with a paddle to a smooth, uniform painting consistency, will be rejected. All materials shall have a container storage life of one year from date of manufacture. Any coatings and traffic marking materials not acceptable for proper application will be rejected, even though it conforms to these Specifications in all other respects.
- C. Mixing: All paints except aluminum shall be delivered to the project completely mixed, and ready to be used without additional oil or thinner. Gasoline shall not be used for thinner under any circumstances.

PART 2 PRODUCTS

2.01 PAINT

- A. Color: White, yellow, or blue traffic paint meeting the requirements of Section 971 of the Standard Specifications.
- B. Homogeneous, easily stirred to smooth consistency, with no hard settlement or other objectionable characteristics during a storage period of 6 months.

2.02 THERMOPLASTIC STRIPING

A. White or yellow thermoplastic striping material meeting the requirements of Section 971-17 of the Standard Specifications.

2.03 RAISED REFLECTIVE MARKERS

- A. Metallic or nonmetallic, or prismatic reflector type, of permanent colors retaining color and brightness under action of traffic.
- B. Rounded surfaces presenting a smooth contour to traffic. The minimum area of each reflective face shall be 2-1/2 inches squared.
- C. Marker and adhesive epoxy in accordance with ASTM D4280
- D. Markers shall meet the requirements of Section 970 (Class B) of the Standard Specifications.

2.04 GLASS SPHERES

- A. Glass spheres shall be of a composition designed to be highly resistant to traffic wear and to the effects of weathering.
- B. In accordance with AASHTO M247, Type I with moisture resistant coating or a formulation specified by the traffic striping material manufacturer and Section 971-14 of the Standard Specifications.

PART 3 EXECUTION

3.01 SURFACE PREPARATION

A. Cleaning:

- 1. Thoroughly clean surfaces to be marked before application of pavement marking material.
- 2. Remove dust, dirt, and other granular surface deposits by sweeping, blowing with compressed air, rinsing with water or a combination of these methods.
- 3. Completely remove rubber deposits, surface laitance, existing paint markings, and other coatings adhering to pavement with scrapers, wire brushes, sandblasting, approved chemicals, or mechanical abrasion.
- 4. Scrub areas of old pavement affected with oil or grease with several applications of trisodium phosphate solution or other approved detergent or degreaser, and rinse thoroughly after each application.
- 5. Surfaces shall be completely free of dry dirt and ice, and dry of water at the time of application of any of the materials specified herein.
- 6. Oil-Soaked Areas: After cleaning, seal with cut shellac to prevent bleeding through the new paint.
- 7. Reclean surfaces when Work has been stopped due to rain.
- 8. Existing Pavement Markings:
 - a. Remove existing pavement markings that may interfere or conflict with newly applied marking patterns, or that may result in a misleading or confusing traffic pattern.

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- b. Do not apply thermoplastic markings over existing preformed or thermoplastic markings.
- c. Perform grinding, scraping, sandblasting or other operations so finished pavement surface is not damaged.
- B. Pretreatment for Early Painting: Where early painting is required on rigid pavements, pretreat with an aqueous solution containing 3 percent phosphoric acid and 2 percent zinc chloride.

C. New Concrete Pavement:

- 1. Allow a minimum cure time of 30 days before cleaning and marking.
- 2. Clean by either sandblasting or water blasting to the following results:
 - a. No visible evidence of curing compound on peaks of textured concrete surface.
 - b. No heavy puddled deposits of curing compound in valleys of textured concrete surface.
 - c. Remaining curing compound is intact, with loose and flaking material completely removed.
 - d. Peaks of textured pavement surface are rounded in profile and free of sharp edges and irregularities.
- 3. Allow a minimum drying time of 24 hours after water blasting before applying thermoplastic markings.

3.02 ALIGNMENT FOR MARKINGS

A. The Contractor shall be responsible for all measurements, reference points and marks, string lining, and any other steps required in establishing pavement marking locations and alignment. On tangents and on curves up to 1 degree, the alignment of the marking shall not deviate from the string line by more than 1 inch. On curves exceeding 1 degree, the maximum permissible deviation shall be 2 inches. All alignment width and location shall conform to the details shown on the Drawings.

3.03 PAINT APPLICATION

A. General:

- 1. Thoroughly mix pigment and vehicle together prior to application, and keep thoroughly agitated during application.
- 2. Do not add thinner.
- 3. Apply only when air and pavement temperatures are above 40 degrees F and less than 95 degrees F. Maintain paint temperature within these same limits.
- 4. Apply only when surface is dry.
- 5. Do not apply when conditions are windy to the point of causing overspray or fuzzy line edges.
- 6. New Asphalt Pavement: Allow a minimum pavement cure time as recommended by the manufacturer before applying paint.
- 7. Provide guide lines and templates to control paint application.
- 8. Take special precautions in marking numbers, letters, and symbols.

9. Sharply outline edges of markings and apply without running or spattering.

B. Rate of Application:

- 1. Reflective Markings:
 - a. Paint: Apply evenly, 105 plus or minus 5 square feet per gallon.
 - b. Glass Beads: Apply uniformly, 6 plus or minus 0.5 pounds of glass spheres per gallon of paint.
- 2. Nonreflective Markings: Apply paint evenly to pavement surface at a rate of 105 plus or minus 5 square feet per gallon.
- 3. On new pavement or new asphalt surface treatments, apply two coats of paint at a uniform rate of 210 square feet per gallon.

C. Drying:

- 1. Provide maximum drying time to prevent undue softening of bitumen and pickup, displacement, or discoloration by traffic.
- 2. If drying is abnormally slow, discontinue painting operations until cause is determined and corrected.

3.04 THERMOPLASTIC MARKING APPLICATION

- A. Following specified surface preparation, prime and apply marking and glass beads to provide a reflectorized strip as shown on Drawings.
- B. The material shall be applied to the pavement by the extrusion method only, wherein one side of extrusion shaping die is the pavement and the other sides are formed by suitable equipment for heating and controlling the flow of the material.

C. Application Temperatures:

- 1. Pavement Surface: Minimum 40 degrees F and rising.
- 2. Thermoplastic: Minimum 375 degrees F, maximum 425 degrees F.

D. Primer:

- 1. On portland cement concrete and existing asphalt pavements, apply epoxy resin primer/sealer according to the thermoplastic manufacturer's recommendations.
- 2. All primer/sealer to dry prior to applying thermoplastic.

E. Thermoplastic Marking:

- 1. Extrude in a molten state, free of dirt or tint. at a thickness of 0.10 to 0.15 inch for lane lines and 0.07 to 0.10 inch for edge or other lines in accordance with FDOT 711-4.3.
- 2. Apply centerline, skipline, edgeline, and other longitudinal type markings with a mobile applicator.
- 3. Apply special markings, crosswalks, stop bars, legends, arrows, and similar patterns with a portable, extrusion-type applicator.

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- F. Glass Bead Application:
 - Immediately after marker application, mechanically apply such that the 1. beads are held by and imbedded in the surface of the molten material.
 - 2. Application Rate: One pound per 20 square feet of compound.
- G. Cool completed marking to ambient temperature prior to allowing vehicular traffic.

3.05 INSTALLATION OF RAISED REFLECTIVE MARKERS

- Α. Apply markers to the bonding surface using bituminous adhesives only.
- B. Apply the adhesive to the binding surface (not the marker) so that 100 percent of the bonding area of the marker will be covered.
- C. Align markers carefully, projecting no more than 3/4-inch above level of pavement. Reflective face of the marker shall be perpendicular to a line parallel to the roadway centerline. Do not install markers over longitudinal or transverse joints of the bonding surface.
- D. Spacing: As shown on the Drawings.
- E. Immediately remove excess adhesive from the bonding surface and exposed surface of the marker.
- F. Use only a mineral spirits meeting Federal Specifications TT-T-291 to remove adhesive from exposed faces of markers.

GLASS BEAD APPLICATION 3.06

- Α. Apply immediately following application of paint.
- B. Use evenly distributed, drop-on application method.
- C. Rate: 10 pounds per gallon of paint.

3.07 **PROTECTION**

- A. The CONTRACTOR shall erect adequate warning signs and/or provide sufficient number of flagmen, and take all necessary precautions for the protection of the materials and safety of the public.
- B. Protect surfaces from disfiguration by paint spatters, splashes, spills, or drips.

3.08 **CLEANUP**

Remove paint spatters, splashes, spills, or drips from Work and staging Α. areas and areas outside of the immediate Work area where spills occur.

END OF SECTION

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SECTION 02771 CONCRETE CURBS AND SIDEWALKS

PART 1 GENERAL (NOT USED)

PART 2 PRODUCTS

2.01 EXPANSION JOINT FILLER

A. 1/2-inch thick, preformed asphalt-impregnated, expansion joint material meeting AASHTO M153 Type I, II, or III, or AASHTO M213, or cellulose fiber types meeting the requirements of AASHTO M213, except the asphalt content is acceptable provided they contain minimum of 0.2 percent copper pentachlorophenate as a preservative and 1 percent water proofing wax.

2.02 CONCRETE

- A. Ready-mixed meeting ASTM C94, Option A, with compressive strength of 3,000 psi at 28 days.
- B. Maximum Aggregate Size: 1-1/2 inch.
- C. Slump: 2 to 4 inches.

2.03 CURING COMPOUND

A. Liquid membrane-forming, clear or translucent, suitable for spray application and meeting ASTM C309, Type 1.

PART 3 EXECUTION

3.01 FORMWORK

- A. Lumber Materials:
 - 2-inch dressed dimension lumber, or metal of equal strength, straight, free from defects that would impair appearance or structural quality of completed curb and sidewalk.
 - 2. 1-inch dressed lumber or plywood may be used where short-radius forms are required.
- B. Metals: Steel in new undamaged condition.
- C. Setting Forms:
 - 1. Construct forms to shape, lines, grades, and dimensions.
 - 2. Stake securely in place.
- D. Bracing:
 - 1. Brace forms to prevent change of shape or movement resulting from placement.

Construct short-radius curved forms to exact radius.

E. Tolerances:

- 1. Do not vary tops of forms from gradeline more than 1/8 inch when checked with 10-foot straightedge.
- 2. Do not vary alignment of straight sections more than 1/8 inch in 10 feet.

3.02 PLACING CONCRETE

- A. Excavate to the required depth, place and compact limerock base rock as specified in Section 02710, Limerock Base. Compact directly under the area and 1 foot beyond each side of the sidewalk and curb.
- B. Prior to placing concrete, remove water from excavation and debris and foreign material from forms.
- C. Place concrete as soon as possible, and within 1-1/2 hours after adding cement to mix without segregation or loss of ingredients, and without splashing.
- D. Place, process, finish, and cure concrete in accordance with applicable requirements of ACI 304, and this section. Wherever requirements differ, the more stringent shall govern.
- E. To compact, vibrate until concrete becomes uniformly plastic.
- F. All edges shall be smooth and rounded.

3.03 CURB CONSTRUCTION

- A. Construct ramps at pedestrian crossings.
- B. Expansion Joints: Place at maximum 20-foot intervals and at the beginning and end of curved portions of curb, and at connections to existing curbs. Install expansion joint filler at each joint.
- C. Curb Facing: Do not allow horizontal joints within 7 inches from top of curb.
- D. Contraction Joints:
 - 1. Maximum 10-foot intervals in curb.
 - 2. Provide open joint type by inserting thin, oiled steel sheet vertically in fresh concrete to force coarse aggregate away from joint.
 - 3. Insert steel sheet to full depth of curb.
 - 4. Remove steel sheet with sawing motion after initial set has occurred in concrete and prior to removing front curb form.
 - 5. Finish top of curb with steel trowel and finish edges with steel edging tool.
- E. Front Face:

- 1. Remove front form and finish exposed surfaces when concrete has set sufficiently to support its own weight.
- 2. Finish formed face by rubbing with burlap sack or similar device to produce uniformly textured surface, free of form marks, honeycomb, and other defects.
- 3. Remove and replace *defective* concrete.
- 4. Apply curing compound to exposed surfaces of curb upon completion of finishing.
- 5. Continue curing for minimum of 5 days.
- F. Backfill curb with earth upon completion of curing period, but not before 7 days has elapsed since placing concrete.
 - 1. Backfill shall be free from rocks 2 inches and larger and other foreign material.
 - 2. Compact backfill firmly.

3.04 SIDEWALK CONSTRUCTION

A. Thickness:

- 1. 4 inches in walk areas.
- 2. 6 inches in driveway and commercial areas.
- B. Connection to Existing Sidewalk:
 - 1. Remove old concrete back to an existing contraction joint.
 - 2. Clean the surface.
 - 3. Apply a neat cement paste immediately prior to placing new sidewalk.
- C. Expansion Joints: Place at maximum 20-foot intervals, at adjacent curb expansion joint, where sidewalk ends at curb, and around posts, poles, or other objects penetrating sidewalk. Install expansion joint filler at each joint.
- D. Contraction Joints:
 - 1. Provide transversely to walks at locations opposite contraction joints in curb.
 - 2. Dimensions: 3/16-inch by 1-inch weakened plane joints.
 - 3. Construct straight and at right angles to surface of walk.

E. Finish:

- 1. Broom surface with fine-hair broom at right angles to length of walk and tool at edges, joints, and markings.
- 2. Ensure that the surface variations are not more than ¼ inch under a 10-foot straightedge, or more than 1/8 inch on a 5-foot transverse section.
- 3. Mark walks transversely at 5-foot intervals, or in pattern shown on Drawings, with jointing tool; finish edges with rounded steel edging tool.
- 4. Apply curing compound to exposed surfaces upon completion of finishing.
- 5. Protect sidewalk from damage and allow to cure for at least 7 days.

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END OF SECTION

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SECTION 02772 ASPHALT CONCRETE PAVEMENT

PART 1 **GENERAL**

1.01 STANDARD SPECIFICATIONS

Α. When referenced in this Section shall mean Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition.

QUALITY ASSURANCE 1.02

Qualifications: Α.

- 1. Independent Testing Laboratory: In accordance with ASTM E329.
- Asphalt concrete mix formula shall be prepared by an approved certified independent laboratory under the supervision of a certified asphalt technician.

1.03 **ENVIRONMENTAL REQUIREMENTS**

- Temperature: Do not apply asphalt materials or place asphalt mixes when Α. ground temperature is lower than 10 degrees C (50 degrees F), or air temperature is lower than 4 degrees C (40 degrees F). Measure ground and air temperature in shaded areas away from heat sources or wet surfaces.
- B. Moisture: Do not apply asphalt materials or place asphalt mixes when application surface is wet.

PART 2 **PRODUCTS**

2.01 **MATERIALS**

- Prime Coat: Cut-back asphalt, Grades RC-70 or RC-250 meeting the Α. requirements of Section 916-2 of the Standard Specifications.
- B. Tack Coat: Emulsified asphalt, Grade RS-2, SS-1, or SS-1H meeting the requirements of Section 916-4 of the Standard Specifications. The bituminous material shall be heated to a suitable consistency as directed by the Engineer.
- Sand (Blotter Material): Clean, dry, with 100 percent passing a 4.75 mm C. (No. 4) sieve, and a maximum of 10 percent passing a 75 mm (No. 200) sieve.

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2.02 ASPHALT CONCRETE MIX

A. General:

- 1. Mix formula shall not be modified except with the written approval of Engineer.
- 2. Source Changes:
 - a. Should material source(s) change, establish a new asphalt concrete mix formula before the new material(s) is used.
 - b. Perform check tests of properties of the plant-mix bituminous materials on the first day of production and as requested by Engineer to confirm that properties are in compliance with design criteria.
 - c. Make adjustments in gradation or asphalt content as necessary to meet design criteria.
- B. Asphalt Concrete: Type S-III or SP-9.5 (coarse) meeting the requirements in Section 334 of the Standard Specifications.
- C. Composition: Hot-plant mix of aggregate, mineral filler, and paving grade asphalt cement. The several aggregate fractions shall be sized, uniformly graded, and combined in such proportions that the resulting mixture meets the grading requirements of the mix formula.

D. Aggregate:

- 1. The aggregate shall meet the requirements in Section 334 of the Standard Specifications.
 - a. Mineral Filler shall meet the requirements of Section 917 of the Standard Specifications
- E. Asphalt Cement: Paving Grade AC-30 meeting the requirements of Section 916 of the Standard Specifications.

PART 3 EXECUTION

3.01 GENERAL

- A. Traffic Control: Minimize inconvenience to traffic, but keep vehicles off freshly treated or paved surfaces to avoid pickup and tracking of asphalt.
- B. Driveways: Repave driveways from which pavement was removed. Leave driveways in as good or better condition than before start of construction.

3.02 LINE AND GRADE

- A. Provide and maintain intermediate control of line and grade, independent of the underlying base to meet finish surface grades and minimum thickness.
- B. Shoulders: Construct to line, grade, and cross-section shown.

3.03 PREPARATION

- A. Prepare subgrade as specified in Section 02319, Subgrade Preparation.
- B. Existing Roadway:
 - 1. Modify profile by grinding, milling, or overlay methods as approved, to provide meet lines and surfaces and to produce a smooth riding connection to existing facility.
 - 2. Resurface entire roadway following adjustment of base and asphalt grades.
 - 3. Paint edges of meet line with tack coat prior to placing new pavement.
- C. Thoroughly coat edges of contact surfaces (curbs, manhole frames) with emulsified asphalt or asphalt cement prior to laying new pavement. Prevent staining of adjacent surfaces.

3.04 PAVEMENT APPLICATION

A. General: Place asphalt concrete mixture on an approved, prepared base in conformance with this Section.

B. Prime Coat:

- 1. Heat cut-back asphalt between 100 degrees F and 150 degrees F prior to application.
- 2. Apply uniformly to clean, dry surfaces. Avoiding overlapping of applications.
- 3. Do not apply when moisture content of upper 3 inches of base exceeds optimum moisture content of base, or if free moisture is present.
- 4. Application Rate: Minimum 0.1 gallons per square yard of surface area.
- 5. Remove or redistribute excess material.
- 6. Allow a minimum of 5 full days for curing of primed surface before placing asphalt concrete.

C. Tack Coat:

- 1. Apply uniformly to clean, dry surfaces. Avoiding overlapping of applications.
- 2. Do not apply more tack coat than necessary for the day's paving operation.
- 3. Touch up missed or lightly coated surfaces and remove excess material.
- 4. Application Rate:
 - Minimum 0.05 gallons to maximum 0.12 gallons of asphalt (residual if diluted emulsified asphalt) per square yard of surface area.
 - b. Apply at rate, within range specified, sufficient to assure good bonding, but not so heavy that surplus asphalt flushes into asphalt concrete being placed.
- D. Pavement Mix:

- 1. Prior to Paving:
 - a. Sweep primed surface free of dirt, dust, or other foreign matter.
 - b. Patch holes in primed surface with asphalt concrete pavement mix.
 - c. Blot excess prime material with sand.
- 2. Place asphalt concrete pavement mix in lifts as shown.
- 3. Compacted Lift Thickness:
 - a. Minimum: Twice the maximum aggregate size, but in no case less than 3/4 inch. Minimum thickness for Type S-111 and SP-9.5 is 1.5 inches.
 - b. Maximum: 4 inches.
- 4. Total Compacted Thickness: As shown.
- 5. Apply such that meet lines are straight and edges are vertical.
- 6. Collect and dispose of segregated aggregate from raking process. Do not scatter material over finished surface.
- 7. Joints:
 - a. Offset edge of each layer a minimum of 6 inches so joints are not directly over those in underlying layer.
 - b. Offset longitudinal joints in roadway pavements, so longitudinal joints in wearing layer coincide with pavement centerlines and lane divider lines.
 - c. Form transverse joints by cutting back on previous day's run to expose full vertical depth of layer.
- 8. Succeeding Lifts: Apply tack coat to pavement surface between each lift.
- 9. After placement of pavement, seal meet line by painting a minimum of 6 inches on each side of the joint with cut-back or emulsified asphalt. Cover immediately with sand.

E. Compaction:

- 1. Roll until roller marks are eliminated and compacted to 100 percent of the laboratory compacted mixture.
- 2. Joint Compaction:
 - a. Place top or wearing layer as continuously as possible.
 - b. Pass roller over unprotected end of freshly laid mixture only when placing of mix is discontinued long enough to permit mixture to become chilled.
 - c. Cut back previously compacted mixture when Work is resumed to produce a slightly beveled edge for full thickness of layer.
 - d. Cut away waste material and lay new mix against fresh cut.

F. Tolerances:

- 1. General: Conduct measurements for conformity with crown and grade immediately after initial compression. Correct variations immediately by removal or addition of materials and by continuous rolling.
- 2. Completed Surface or Wearing Layer Smoothness:
 - a. Uniform texture, smooth, and uniform to crown and grade.
 - b. Maximum Deviation: 1/8 inch from lower edge of a 12-foot straightedge, measured continuously parallel and at right angle to centerline.
 - c. If surface of completed pavement deviates by more than twice the specified tolerances, remove and replace wearing surface.

- 3. Transverse Slope Maximum Deviation: ¼ inch in 12 feet from the rate of slope shown.
- 4. Finished Grade:
 - a. Perform a field differential level survey on a maximum 50-foot grid and along all grade breaks.
 - b. Maximum Deviation: 0.02 foot from the grade shown.

G. Seal Coat:

- 1. General: Apply seal coat of paving grade or emulsified asphalt to finished surface at longitudinal and transverse joints, joints at abutting pavements, areas where the asphalt concrete was placed by hand, patched surfaces, and other areas as directed by the Engineer.
- 2. Preparation:
 - a. Maintain surfaces that are to be sealed free of holes, dry, and clean of dust and loose material.
 - Seal in dry weather and when the temperature is above 35 degrees F.
- Application:
 - Fill cracks over 1/16 inch in width with an asphalt-sand slurry or approved crack sealer prior to sealing.
 - b. When sealing patched surfaces and joints with existing pavements, extend minimum 6 inches beyond edges of patches.

3.05 PAVEMENT OVERLAY

A. Preparation:

- 1. Remove fatty asphalt, grease drippings, dust, and other deleterious matter.
- 2. Surface Depressions: Fill with asphalt concrete mix, and thoroughly compact.
- 3. Damaged Areas: Remove broken or deteriorated asphalt concrete and patch as specified in Article Patching.
- 4. Portland Cement Concrete Joints: Remove joint filler to minimum 1/2 inch below surface.

B. Application:

- 1. Tack Coat: As specified in this Section.
- 2. Place and compact asphalt concrete as specified in Article Pavement Application.
- 3. Place first layer to include widening of pavement and leveling of irregularities in the surface of the existing pavement.
- 4. When leveling irregular surfaces and raising low areas, the actual compacted thickness of any one lift shall not exceed 2 inches.
- 5. The actual compacted thickness of intermittent areas of 120 square yards or less may exceed 2 inches, but not 4 inches.
- 6. Final wearing layer shall be of uniform thickness, and meet grade and cross-section as shown.

3.06 PATCHING

A. Preparation:

- 1. Remove damaged, broken, or unsound asphalt concrete adjacent to patches. Trim to straight lines exposing smooth, sound, vertical edges.
- 2. Prepare patch subgrade as specified in Section 02319, Subgrade Preparation.

B. Application:

- 1. Patch Thickness: 3 inches or thickness of adjacent asphalt concrete, whichever is greater.
- 2. Place asphalt concrete mix across full width of patch in layers of equal thickness.
- 3. Spread and grade asphalt concrete with hand tools or mechanical spreader, depending on size of area to be patched.

C. Compaction:

- 1. Roll patches with power rollers capable of providing compression of 200 to 300 pounds per linear inch. Use hand tampers where rolling is impractical.
- 2. Begin rolling top course at edges of patches, lapping adjacent asphalt surface at least 1/2 the roller width. Progress toward center of patch overlapping each preceding track by at least 1/2 the width of roller.
- 3. Make sufficient passes over entire area to remove roller marks and to produce desired finished surface.

D. Tolerances:

- 1. Finished surface shall be flush with and match grade, slope, and crown of adjacent surface.
- 2. Tolerance: Surface smoothness shall not deviate more than plus 1/4 inch or minus 0 when a straightedge is laid across patched area between edges of new pavement and surface of old surfacing.

3.07 FIELD QUALITY CONTROL

A. General: Provide services of an approved certified independent testing laboratory to conduct tests.

B. Field Density Tests:

- 1. Perform tests from cores or sawed samples.
- 2. Measure with properly operating and calibrated nuclear density gauge.
- 3. Maximum Density: In accordance with ASTM D2041, using a sample of mix taken prior to compaction from the same location as the density test sample.

C. Testing Frequency:

- 1. Quality Control Tests:
 - a. Asphalt Content, Aggregate Gradation: Once per every 500 tons of mix or once every 4 hours, whichever is greater.

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- b. Mix Design Properties, Measured Maximum (Rice's) Specific Gravity: Once every 1,000 tons or once every 8 hours, whichever is greater.
- Density Tests: Once every 500 tons of mix or once every 4 hours, 2. whichever is greater.

END OF SECTION

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SECTION 328400 PLANTING IRRIGATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes piping, valves, sprinklers, specialties, controls, and wiring for automatic control irrigation system.

1.2 **DEFINITIONS**

- A. Circuit Piping: Downstream from control valves to sprinklers, specialties, and drain valves. Piping is under pressure during flow.
- B. Drain Piping: Downstream from circuit-piping drain valves. Piping is not under pressure.
- C. Irrigation Main Piping: Downstream from point of connection to water distribution piping to, and including, control valves. Piping is under water-distribution-system pressure.

1.3 SUBMITTALS

- A. Product Data: Include pressure ratings, rated capacities, and settings of selected models for the following:
 - 1. General-duty valves.
 - 2. Control-valve boxes.
 - Sprinklers.
 - 4. Controllers.
- B. Shop Drawings: Show irrigation system piping, including plan layout, and locations, types, sizes, capacities, and flow characteristics of irrigation system piping components. Include water meters, backflow preventers, valves, piping, sprinklers and devices, accessories, controls, and wiring. Show areas of sprinkler spray and overspray. Show wire size and number of conductors for each control cable.
- C. Field quality-control test reports.
- D. Operation and maintenance data.
- E. Submit As-Built drawings to the City prior to final inspection of the work.

1.4 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

- B. The work shall conform to the latest requirements of local, state, and federal agencies, as appropriate.
- C. Notify the City 24 hours in advance of starting the work.
- D. Notify the City if variances are found between the Drawings and the code requirements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 PIPES, TUBES, AND FITTINGS

- A. PVC Pipe: ASTM D 1785, PVC 1120 compound, Schedule 40.
 - 1. PVC Socket Fittings, Schedule 40: ASTM D 2466.

2.3 ELECTRIC ZONE CONTROL VALVES

- A. Plastic Automatic Control Valves: Molded-plastic body, normally closed, diaphragm type with manual flow adjustment, and operated by 24-V ac solenoid.
 - 1. Manufacturers:
 - a. Amtex.
 - b. Carson Industries.

B. Products:

- 1. Minimum box size for electric control valves: 16 inches by 12 inches by 10-3/4 inches, black with green cover with irrigation control valve designation molded into the cover. All boxes shall match.
- 2. Crushed 3/4" drain rock shall be placed 3" deep beneath the valve box with the top of the box set flush with grade.

2.4 SPRINKLERS

- A. Description: Brass or plastic housing and corrosion-resistant interior parts designed for uniform coverage over entire spray area indicated, at available water pressure.
 - 1. Manufacturers:
 - a. Hunter Industries Incorporated.
 - 2. Pop-up, Spray Sprinklers: Fixed pattern, with screw-type flow adjustment and stainless-steel retraction spring.

2.5 AUTOMATIC-CONTROL SYSTEM

A. Manufacturers:

- 1. Hunter Industries Incorporated.
- B. Exterior Control Enclosures: NEMA 250, Type 4, weatherproof, with locking cover and two matching keys; include provision for grounding.
 - 1. Material: Molded plastic.
 - 2. Mounting: Freestanding type for concrete-base mounting.
- C. Valves / Timing Device: Hunter PGV Series with SCV-100-VALVE-B Smart Valve Battery Controller.
- D. Wiring: UL 493, Type UF-B multiconductor, with solid-copper conductors and insulated cable: suitable for direct burial.
 - 1. Feeder-Circuit Cables: No. 12 AWG minimum, between building and controllers.
 - 2. Low-Voltage, Branch-Circuit Cables: No. 14 AWG minimum, between controllers and automatic control valves; color-coded different from feeder-circuit-cable jacket color; with jackets of different colors for multiple-cable installation in same trench.
 - 3. Splicing Materials: Manufacturer's packaged kit consisting of insulating, spring-type connector or crimped joint and epoxy resin moisture seal; suitable for direct burial.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Refer to Division 31 Section "Earth Moving" for excavating, trenching, and backfilling.
- B. Install warning tape directly above pressure piping, 12 inches below finished grades, except below subgrade under pavement and slabs.
- C. Install piping and wiring in sleeves under sidewalks.
- D. Provide minimum cover over top of underground piping according to the following:
 - 1. Irrigation Main Piping: Minimum depth of 18 inches below finished grade.
 - 2. Circuit Piping: 10 inches below finished grade.
 - 3. Sleeves: 24 inches below finished grade.
 - 4.

3.2 PIPING APPLICATIONS

- A. Piping in control-valve boxes and aboveground may be joined with flanges instead of joints indicated.
- B. Underground Irrigation Main Piping: Schedule 40, PVC pipe and socket fittings; and solvent-cemented joints.
- C. Circuit Piping: Schedule 40, PVC pipe and socket fittings; and solvent-cemented joints.
- D. Drain Piping: Schedule 40, PVC pipe and socket fittings; and solvent-cemented joints.

E. Sleeves: Schedule 40, PVC pipe and socket fittings; and solvent-cemented joints.

F.

3.3 INSTALLATION

- A. Install piping at minimum uniform slope of 0.5 percent down toward drain valves.
- B. Install piping free of sags and bends.
- C. Install groups of pipes parallel to each other, spaced to permit valve servicing.
- D. Install fittings for changes in direction and branch connections.
- E. Install unions adjacent to valves and to final connections to other components.
- F. Lay piping on solid subbase, uniformly sloped without humps or depressions.
- G. Underground Gate Valves: Install in valve box with top flush with grade.
 - 1. Install valves and PVC pipe with restrained, gasketed joints.
- H. Flush circuit piping with full head of water and install sprinklers after hydrostatic test is completed.
- I. Locate part-circle sprinklers to maintain a minimum distance of 4 inches from walls and 2 inches from other boundaries, unless otherwise indicated.
- J. Install control cable in same trench as irrigation piping and at least 2 inches below piping in schedule 40 PVC conduit. Provide conductors of size not smaller than recommended by controller manufacturer. Install cable in separate sleeve under paved all areas.

3.4 LABELING AND IDENTIFYING

- A. Warning Tapes: Arrange for installation of continuous, underground, detectable warning tape over underground piping, during backfilling of trenches.
- B. Refer to Division 31 Section "Earth Moving" for warning tapes.

C.

3.5 FIELD QUALITY CONTROL

- A. Perform the following field tests and inspections and prepare test reports:
 - 1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
 - 2. Operational Test: After electrical circuitry has been energized, operate controllers and automatic control valves to confirm proper system operation.
 - 3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

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B. Remove and replace units and retest as specified above.

C.

3.6 ADJUSTING

- A. Adjust settings of controllers.
- B. Adjust automatic control valves to provide flow rate of rated operating pressure required for each sprinkler circuit.
- C. Adjust sprinklers so they will be flush with, or not more than 1/2 inch above, finish grade.

END OF SECTION 328400

SECTION 329113 SOIL PREPARATION

PART I - GENERAL

1.1 WORK INCLUDED

- A. Provide labor, materials, necessary equipment and services to complete the soil preparation work, as indicated on the drawings, as specified herein or both.
- B. Including, but not limited to:
 - 1. Topsoil
 - 2. Soil Conditioners
 - 3. Sand
 - 4. Planting Soil
 - 5. Peat

1.2 RELATED WORK

- 1. Section 312216 Fine Grading
- 2. Section 329600 Tree Relocation and Protection
- 3. Section 329200 Turf Grass

1.3 QUALITY ASSURANCE

- A. Testing Agency: Independent testing laboratory
- B. Conform to the requirements of Regulatory Agencies
- C. Reference standards:
- D. ASTM C136 Sieve Analysis of Soils
- E. ASTM D422 Mechanical Analysis of Soils
- F. ASTM D424 Plastic Limits of Soil

1.4 SUBMITTALS

- A. Test Reports:
 - 1. Results of topsoil analysis
 - 2. Results of water analysis

3. Results of planting soil mixes analysis.

B. Certificates:

- 1. Manufacturer's certification and/or testing laboratory certification that content of soil conditioners meet specification requirements.
- 2. Literature and proposed application rates for all Soil Amendments.
- 3. Literature and proposed application rates for all Herbicides and Sterilizers:

C. Samples:

1. Submit a one cubic foot sample of each planting soil mix.

1.5 JOB CONDITIONS

A. Protect from damage walks, pavement, plant material, and other work or existing features.

PART II - PRODUCTS

2.1 TOPSOIL

- A. Use free draining topsoil, suitable for plant growth and free from hard clods, stiff clay, hardpan, gravel, subsoil, brush, roots, refuse or other deleterious material, and of uniform quality.
- B. Mechanical analysis for well graded topsoil:

Sieve Size	Percentage Passing By Dry Weight
2 inch 1/4 inch	100 90-92
No. 10	50-55
No. 40 No. 100	20-25 4-6
No. 200	0-1

Dispose of materials larger than one-half inch off the site.

- C. Maximum Soluble Salts: 550 ppm.
- D. Acidity: pH 6.5 to pH 7.5
- E. Relative Density: 25%-50%, loose
- F. Relative Permeability: 20 in/hr minimum
- G. Plastic Index: 3-10

2.2 SOIL CONDITIONERS

- A. Aluminum Sulfate: Manufacturer's standard commercial grade.
- B. Peat: Federal Specifications Q-P-166 Type 1, Class B, Sphagnum moss.
- C. Pesticides: As recommended by applicable Agricultural Public Agencies.
- D. Herbicides and Sterilizers:
 - 1. "Ronstar" pre-emergent herbicide
 - 2. "Roundup" systemic herbicide

E. Soil Amendments:

1. Fertilizer

- All fertilizers shall be manufactured from quality materials, be free from impurities, uniform in composition meet recognized standards for effectiveness and be free flowing and suitable for application with approved equipment.
- b. All fertilizer shall be delivered to the site in bags or other convenient containers, each fully labeled, conforming to the applicable state fertilizer laws, bearing the grade and the trade name of the producer.
- c. Die Hard Root Reviver Endo and Ectomycorrizal inoculant, as manufactured by Die hard, 1.800.628.6373 or City approved equal.
- d. Die Hard Transplant One Step Endo and Ectomycorrizal inoculant, as manufactured by Die hard, 1.800.628.6373 or City approved equal.
- e. Time release, Palm Mix fertilizer with minor elements or City approved equal.
- f. Time release, Tree and Shrub Mix fertilizer, 6-6-6, with minor elements or City approved Equal.
- g. Granular Triple Super Phosphate as manufactured by IMC. Agrico. 708.970.3000.
- h. Agriform Planting Tablets, 8-8-8 plus minors, as manufactured by Grace Sierra, 408.263.8080 or City approved equal.
- i. Scott's Turf Starter (16-25-12) or City approved equal.
- j. Wetting agent to be Terra Sorb or City approved equal.
- k. Soil conditioner to be "Super Lesco Wet", as manufactured by Lesco, Inc. or City Approved Equal.
- 2. Water: From City of Fort Lauderdale irrigation wells or municipal source.

- 3. Sand: Clean, sharp builders sand free draining and free of substances harmful to growth of plants.
- 4. Peat: Florida and Canadian Peat from City approved sources.
- 5. Compost: from City approved source.

2.3 PLANTING SOIL MIXES

- A. Planting Soil Mixture A to be placed in St. Augustine 'Palmetto' sod areas, shrub and ground cover beds and in broadleaf tree pits, both new and transplanted.
 - 20% Topsoil, 10% Peat or Compost, 70% Sand
- B. Planting Soil Mixture B to be placed as backfill around the root balls of palms shall be 90% FDOT coarse sand and 10% topsoil.
- C. Planting Soil Mixture C to be placed in Bermuda sod areas shall be 80% sand, 20%Canadian Peat.
- D. Test pH of topsoil and planting soil mixtures. If pH is not between specified limits add approved soil conditioner/additive to bring pH within that range.

2.04 BASEBALL FIELD MATERIAL

- A. Infield Clay
 - 1. Infield Clay shall be 70% Ortuna sand, 30% clay and obtained from a City approved source.
 - 2. Contractor shall provide certified laboratory sieve analysis and sample to City for approval.
 - 3. See Section 02920-2.4 B/C for field additives.
- B. Infield Additive Material
 - 1. Crimson Stone, Ultimate II or approved equal.
 - a. The material shall have clean, durable particles or fragments of 5/64" minus Crimson Stone material. Z-Blend additive shall be evenly mixed throughout the material.
 - b. The material shall have a bulk dry specific gravity of 2.50-2.75, a bulk saturated gravity of 2.50-2.75 and an apparent specific gravity of 2.75-3.0 (ASTM C127).
 - c. Have a resistance to abrasion and impact grading of C and loss of 40.0 or less as determined by ASTM C131.
- C. Warning Track Material at Fencing

- 1. Crimson Stone, Ultimate II or approved equal.
 - a. The material shall have clean, durable particles or fragments of 5/64" minus Crimson Stone material. Z-Blend additive shall be evenly mixed throughout the material.
 - b. The material shall have a bulk dry specific gravity of 2.50-2.75, a bulk saturated gravity of 2.50-2.75 and an apparent specific gravity of 2.75-3.0 (ASTM C127).
 - c. Have a resistance to abrasion and impact grading of C and loss of 40.0 or less as determined by ASTM C131.

PART III - EXECUTION

3.1 INSPECTION

- A. Examine areas to receive soil preparation to assure work of other trades has been completed.
- B. Verify that plants to remain undisturbed have been clearly identified and protected from injury during construction. If not, identify and protect plants to remain according to procedures set forth in Section 02950 Trees, Plants and Groundcover.
- C. Remove construction materials and debris from areas to be landscaped.
- D. Do not proceed with soil preparation until unsatisfactory conditions are corrected.

3.2 PERFORMANCE

- A. Subsoil: Prepare in accordance with Section 02200 Earthwork.
- B. Placement
 - 1. Place planting soil mixes as accepted by the City.
 - 2. Place Planting Soil Mix A to 12" depth in shrub and ground cover beds and as backfill in broadleaf tree pits.
 - 3. Remove rocks and other objects over 1" in diameter. Repeat procedure in the event of disturbances to fine grading after completion.
 - 4. Smooth Planting Soil mixture to three (3) inches below top of surrounding paving, wherever planting beds abut paved surfaces.
 - 5. Smooth Planting Soil mixture to (2") two inches below finish grade in areas to be sodded with St. Augustine 'Palmetto' sod.
 - 6. Smooth planting soil mixture to (6") six inches below finish grade above 14" sterile sand in areas to be sodded with Bermuda sod.
 - 7. Do not compact planting soil mixture, but do wet-soak planting areas to assure proper settlement. Replace topsoil/planting soil mixture to specified grade after

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watering.

8. Apply pre-emergent weed control per manufacturers recommended rates of application to sterilize the soil.

3.3 CLEAN-UP

- A. Immediately clean up spills, soil and conditioners on paved and finished surface areas.
- B. Remove debris and excess materials from project site immediately.

END OF SECTION 329113

SECTION 329200 TURF GRASS

PART 1 – GENERAL

1.1 WORK INCLUDED

A. Provide labor, materials, equipment and services to complete the sodding work, as indicated on the drawings, as specified herein, or both.

1.2 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 QUALITY ASSURANCE

A. Regulatory Agencies: Conform to the requirements of local agricultural and governing agencies.

1.4 SUBMITTALS

A. Certificates: Not applicable to this project.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver sod on pallets.
- B. Protect root system from exposure to wind or sun.
- C. Protect sod against dehydration, contamination, and heating during transportation and delivery.
- D. Do not deliver more sod than can be installed within 24 hours.
- E. Do not pile sod more than 2 feet deep.

1.6 **JOB CONDITIONS**

- A. Begin installation of sod after preceding related work is accepted.
- B. Environmental Requirements:
 - 1. Install sod during time period acceptable to the City.
 - 2. Do not install sod on saturated soil.
- C. Erect signs and barriers against vehicular traffic, where applicable.

1.7 GUARANTEE

- A. Guarantee period is not applicable for this project.
- B. Contractor shall be responsible for any damaged sod caused by forklifts, tractors, trucks etc. during the placing of that sod.

PART 2 - PRODUCTS

2.1 SOD

- A. Grass Species:
 - 1. Stenotaphrum secundatum / St. Augestine 'Palmetto'.
- B. American Sod Producers Association (ASPA) Grade: Nursery Grown or Approved.
- C. Sod Configuration:
 - 1. Stenotaphrum secundatum / St. Augestine 'Palmetto'.
 - a. Furnished in pads, approximately 24" x 18" x 1-1/2", excluding top growth and thatch.
 - b. Pads not stretched or broken.
 - c. Uniformly mowed height when harvested 2 inches.
- D. Inspected and found free of diseases, nematodes, pests, and pest larvae, by entomologist of the local Agricultural agency.
- E. Weeds: Free of non-specified grass, nut grass or other objectionable weeds.
- F. Uniform in color, leaf texture, and density.

2.2 WATER

A. Free of substances harmful to plant growth.

2.3 FERTILIZER

A. Not applicable to this project.

2.4 HERBICIDES AND STERILIZERS

A. As recommended by local agricultural agencies.

PART 3 - EXECUTION

3.1 INSPECTION

A. Verify that planting soil mix is installed as specified in Section 02920 - Soil Preparation.

B. Water dry soil to depth of 6 inches 48 hours before sodding.

3.2 INSTALLATION

- A. Transplant sod within 48 hours after harvesting.
- B. Lay first row of sod in straight line.
- C. Butt side and end joints.
- D. Stagger end joints in adjacent rows.
- E. Do not stretch or overlap rows.
- F. Cut and trim sod edges at plant beds, walks, buildings or other edge areas.
- G. Sprinkle sod immediately after transplanting to thoroughly water and to wash in lawn sand. Add additional sand to produce a level lawn.

3.3 LAWN ESTABLISHMENT

- A. Watering: Water sod via watering truck daily except Sunday during first two weeks after planting.
- B. Establishment period to extend until final acceptance by the City.

3.4 CLEANING

- A. Immediately clean spills from paved and finished surface areas.
- B. Remove debris and excess materials from project site.
- C. Dispose of protective barricades and warning signs at termination of lawn establishment.

3.5 FINAL INSPECTION AND ACCEPTANCE

- A. Request final inspection for acceptance at completion.
- G. Replace rejected sod area with acceptable sod within two weeks after the inspection.

END OF SECTION 329200

SECTION 329300 LANDSCAPE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

PART 2 - PRODUCTS

2.1 PLANT MATERIAL

- A. Well-formed and shaped, true to type, and free from disease, insects, and defects such as knots, sun-scald, windburn, injuries, abrasion or disfigurement.
- B. True to botanical and common name and variety: American Joint Committee on Horticultural Nomenclature, Standardized Plant Names, latest edition.
- C. Minimum grade of Florida No. 1 in accordance with Grades and Standards for Nursery Plants published by the State of Florida Department of Agriculture.
- D. Plants not listed in Grades and Standards for Nursery Plants shall conform to a Florida No. 1 as to: (1) Health and vitality; (2) condition of foliage, (3) root system, (4) freedom from pest or mechanical damage, (5) heavily branched and densely foliated according to the accepted normal shape of the species or sport.

2.2 TOPSOIL

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 6 percent organic material content; free of stones 1 inch (25 mm) or larger in any dimension and other extraneous materials harmful to plant growth.
 - 1. Topsoil Source: Reuse surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
 - a. Supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches (100 mm) deep; do not obtain from agricultural land, bogs or marshes.

2.3 PLANTING SOIL

A Planting soil mixture for backfill around trees, shrubs, and groundcover shall be 50% sand and 50% muck (screened and mixed). Planting soil shall be free of construction debris, weeds, viable weed seeds, and rocks.

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2.4 MYCORRHIZAL

A. All trees, palms, shrubs, ground covers, and sodded areas shall be treated with mycorrhizal dry granular fungi inoculant mixed in the backfill. See Section 3 for application rates and landscape plan notes and planting details.

2.5 MULCHES

- A. Cypress mulch and red or black recycled mulch shall not be used.
- B. Minimum organic matter by weight on an oven dry basis: 85%.
- C. Processed specifically for use as top mulch around plant beds.

2.6 PLANTING SOIL MIX

- A. Planting soil mixture to be placed in shrub and ground cover beds, and in broadleaf tree pits.
- B. Test pH of topsoil and planting soil mixtures. If pH is not between specified limits, add approved soil conditioner/additive to bring pH within that range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive exterior plants for compliance with requirements and conditions affecting installation and performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, and existing exterior plants from damage caused by planting operations.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- C. Pits and trenches:
 - 1. Shape:
 - Vertical sides and flat bottom.
 - b. Plant pits to be square or circular.
 - 2. Size:
 - a. For trees:
 - 1. Depth: Minimum 2 feet from finish grade and increased as necessary to accommodate planting ball and at least 12" planting soil backfill below ball or roots.

2. Width or diameter: 4 ft. greater than diameter of planting ball (unless otherwise approved by the City for special planting areas).

E. Disposal of excess soil:

- 1. Use acceptable excess excavated topsoil to form watering berms around the trees and palms.
- Dispose of unacceptable or unused excess soil off the project site or as directed by the City.
- F. Test fill tree pits with water before planting to assure proper drainage percolation is available. Pits which are found to not be adequately draining shall be excavated to a depth sufficient for drainage and backfilling with coarse sand. No allowances will be made for lost plants due to improper drainage. Replace with same species size and specification.

3.3 PLANTING

A. General

- 1. Remove burlap from top ¾ of rootball.
- 2. Center plant in pit or trench.
- 3. Face for best effect, or as directed by the City.
- 4. Set plant plumb and hold rigidly in position until soil has been tamped firmly around planting ball.
- 5. Use only planting soil backfill as specified herein before.
- 6. Place sufficient planting soil under plant to bring top of planting ball to finish grade.
- 7. Backfill pit or trench with planting soil in 9 in. layers and water each layer thoroughly to settle soil and work soil completely around roots and planting ball.
- 8. After soil settles fill pit with planting soil, water, and leave pit surface even with finish grade.
- 9. Mulch berm:
 - a. Construct a compacted mulch berm 5-6 in. above finish grade forming a watering basin with a level bottom around each palm or tree.
 - b. Size: 1 ft. greater than diameter of planting ball.
 - c. Leave saucer for 3 months. At the end of 3 months, re-grade area and spread the mulch 12" out from trunk (or planting bed) for all plantings. Remove excess from basin and clean area. Replace any damaged plant material.
- B. Balled and Burlapped Plants (B & B):
 - 1. Place in pit on planting soil backfill material that has been hand-tamped prior to placing plant.
 - 2. Place with burlap intact so location of ground line at top of ball is same as at nursery where grown.
 - 3. Remove binding at top of planting ball and cut off exposed burlap.
 - 4. Do not pull wrapping from under planting ball.
 - 5. Do not plant if planting ball is cracked, broken or showing evidence of voids before or during planting process. Replace with plant of same species, size, and specification.

3.4 MYCORRHIZAL APPLICATION

A. Trees: Use 3 oz. For every 1 inch caliper.

B. Proof of Compliance with Specifications

The Contractor will demonstrate compliance by showing invoices to prove purchase of product in sufficient quantity to cover the project at the rates recommended by the manufacturer. Include project name, date of purchase of product, and name of contact.

3.5 WEED CONTROL

- A. Apply pre-emergent herbicide, as approved by the Architect, per manufacturer's rate and method of application to landscape bed areas.
- B. Apply pre-emergent herbicide before mulching and again as necessary throughout required maintenance period to prevent weed seed germination.
- C. Do not use an herbicide or an application technique that will damage plant material. Replace, and / or repair damage to plants injured by herbicide application

3.6 TOP MULCHING

- A. Top mulch planting pits, trenches, and areas within two days after planting.
- B. Water thoroughly, immediately after mulching.

3.7 GUYING AND STAKING OF TREES

- A. Stake trees as shown on the drawings.
 - 1. Stake installation:
 - a. Drive stakes perpendicularly, 3-feet into ground at edge of root ball. Do not drive stake through root ball or soil separator or drainage gravel if present.
 - b. Number of stakes as shown on details.
 - 2. Typing and cross-bracing:
 - a. For trees over 3-in. in caliper:
 - 1. Stake and tie firmly with nylon strapping per tree/palm bracing detail.
 - b. For trees under 3-in. in caliper:Tie nylon strapping to near vertical wood stakes per small tree planting detail.
 - 3. Maintenance: Trees and palms to remain braced continuously during duration of project.

3.8 PRUNING

- A. New plant material:
 - 1. Prune minimum necessary to remove injured twigs and branches, deadwood, and suckers. Pruning shall be done with regard to natural form of plant material.

3.9 MAINTENANCE

- A. General:
 - 1. Begin maintenance immediately after each item is planted and continue until final inspection and acceptance.

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- 2. Maintain a healthy growing condition by pruning, watering, cultivating, weeding, mulching, tightening, and repairing of guys, resetting plants to proper grades or upright position, restoration of plant saucer, and furnishing and applying such sprays as necessary to keep planting free of insects and diseases.
- 3. The root system of plants shall be watered at such intervals as will keep the surrounding soil in best condition for promotion of root growth and plant life.
- 4. Keep planting saucers and beds free of weeds, grass and other undesired vegetation growth.
- 5. Protect planting areas against trespassing and damage for the duration of the maintenance period.
- 6. Inspect plants at least once a week and perform maintenance promptly. Replace impaired or dead plants promptly. Do not wait until near the end of the guarantee period to make replacements of plants which have become unacceptable.
- 7. Remove soil ridges from around watering basins prior to end of maintenance period.

3.10 CLEANING

- A. Fill pits / depressions in holding area and rough grade to meet surrounding elevations. Remove organic or other debris resulting from the plant relocation process.
- B. Sweep and wash paved surfaces.
- C. Remove planting debris from project site and holding area.

END OF SECTION 329300

SECTION 329600 TREE RELOCATION AND PROTECTION

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. All applicable provisions of the Bidding and Contract requirements shall govern the work under this Section.

1.2 WORK TO BE PERFORMED AND WORK INCLUDED

- A. The Contractor shall provide the following:
 - 1. Prepare and relocate trees and palms designated for relocation within the project boundaries, to include all aspects of preparation, relocation, protection, and maintenance.
 - 2. Protection and care of existing trees and palms to remain within the project boundaries, to include all aspects of protection, pruning, fertilization, and watering.
 - 3. Install and operate temporary irrigation system and hand water as required by these specifications.
 - 4. Follow-up maintenance as required by these specifications.
 - 5. Labor, materials, equipment and services to complete all preparation, relocations and protection work as indicated on the drawings, as specified herein, or both.

1.3 SUBMITTALS

- A. The Contractor shall submit the following:
 - 1. Verification of qualifications. The Contractor shall provide a list of references and project list of a minimum of three (3) projects that the Contractor has successfully completed that are similar in scope of nature.
 - 2. List of all equipment to be utilized during tree preparation and transplanting.
 - 3. Proposed sequence of events from start to finish, in writing. This shall include a schedule by day as to how many units can be dug and relocated to specified areas.
 - 4. Literature and proposed application rates for specified wetting agents, fertilizers and soil conditioners.
 - 5. Verification of all required licenses and memberships.

1.4 APPLICABLE STANDARDS AND SPECIFICATIONS

- A. The Contractor shall comply with the following standards and specifications for all materials, methods, and workmanship unless otherwise noted:
 - 1 Codes and Standards of the American Association of Nurserymen.
 - 2 Codes and Standards of the International Society of Arboriculturists.

1.5 LICENSING AND INSURANCE

A. The Contractor shall be certified with the State of Florida Landscape Maintenance Association.

1.6 PERMITS

A. The Contractor shall secure any permits required in order for completion of this work.

1.7 DESCRIPTION

- A. Trees to relocate on site are designated on the drawings or as directed by the Architect.
- B. Existing trees to be relocated shall be crown pruned, root pruned, and treated with soil amendments prior to relocation.
- C. Existing trees to be relocated or to remain shall be protected with barricades during construction. Trees or shrubs designated to remain, which are scarred or destroyed, shall be replaced with the same species, size, and quality at no cost to the City.
- D. All trees subject to encroachment into the rootzone, due to proposed construction, shall be root pruned 18-inches from the pavement edge or trench as indicated on the drawings and herein these specifications.
- E. Tree pits resulting from relocated material shall be backfilled with clean, stable fill, and prepared to receive the appropriate surface, as indicated on drawings.
- F. The Contractor shall call for and attend an inspection of existing conditions by the City prior to commencing work, including but not limited to identification of trees, and potential obstructions to the relocation work. The Contractor shall prepare a report of existing conditions as a matter of record, which shall also include photographs. The Contractor shall accept the existing conditions as a reference point for condition of trees, and condition of the site. Existing conditions shall then become the responsibility of the Contractor to be kept intact.

1.8 GUARANTEES

- A. The Contractor shall guarantee his work according to the following requirements:
 - 1. Any tree or palm that dies or is deemed in unacceptable condition for one year following the project completion date shall be removed by the Contractor, including root ball, and backfilling of pit, at no cost to the City.
 - 2. The Contractor shall provide a comparable specimen at no additional cost to the City.
 - 3. The guarantee shall be enforced if it is deemed by the Architect, the City Landscape Inspector, or City Horticulturist that tree mortality or decline is a product of negligence by the Contractor.
 - 4. The Contractor shall maintain automatic temporary irrigation in operating order for all relocated trees and palms and all trees and palms to remain within the project area until permanent irrigation system is operable.

PART 2 - PRODUCTS

2.1 SOIL AMENDMENTS

A. Soil amendments shall be as specified in Section 329300 -- Landscape.

2.2 EQUIPMENT

- A. Soil amendments shall be injected into the soil by means of a spray apparatus utilizing mechanical agitation to keep powered amendments suspended, where appropriate.
- B. Root pruning equipment shall be designed for this task, and shall produce clean cuts of root without damage to the resulting root ball.
- C. Relocation equipment shall be capable of lifting and transporting trees or palms without damage.

2.3 **SOIL**

A. Soil for transplanting shall be as specified in Section 329300 – Landscape.

2.4 WATER

A. It shall be the responsibility of the Contractor to provide the necessary clean and potable water to the site.

2.5 MULCH

A. Mulch shall be as specified in Section 329300 – Landscape.

2.6 BRACING AND STAKES

A. All bracing and stakes shall be constructed of pressure treated pine. Compression bands shall be constructed of stainless steel.

2.7 BARRICADES

A. Barricades shall be constructed of 6-foot chain link fence or other barricades as approved by the City.

PART 3- EXECUTION

3.1 PREPARATION FOR RELOCATION OF TREES AND PALMS WITHIN THE PROJECT BOUNDARIES

A. Crown Pruning

All trees and palms shall be crown pruned prior to relocation. The City shall be notified 48 hours in advance of all pruning activities to allow for observation.

1. Broadleaf Trees

- a. All trees to be trimmed by thinning the crown only, and not by reducing the crown dimensions. Trimming shall conform to NAA and ISA standards, including the removal of dead wood.
- b. The Contractor shall repair any existing injuries to trees including cavities and machinery marks.

2. Sabal Palms

a. Remove all seedpods, and all fronds, as in a hurricane cut. Trim all boots to a clean, regular pattern, no more than 3-inches out from the trunk.

B. FERTILIZATION AND WATERING

1. Preparation

a. The Contractor shall clear the root ball area of all foreign material, trash, debris etc., to expose undisturbed soil.

2. Application / Schedule

- a. All trees and palms to be relocated shall be treated with the specified root stimulant at the time of root pruning. The specified root stimulant shall be applied at the concentration and application rates recommended by the manufacturer and approved by the City.
- b. All trees and palms to be relocated shall be deep injection fertilized at the time of transplant. Specified fertilizer shall be used and applied at the concentration and application rates recommended by the manufacturer and approved by the City.
- c. All trees and palms to be relocated shall be treated with the specified wetting agents, fertilizers, and soil conditioners at the time of relocation. Soil amendments shall be mixed to produce a single fluid with each component included at the manufacturer's recommendation and approved by the City. Injection shall be into the root zone within the limits of the proposed root ball at the rate of 50 gallons fluid per 1,000 square feet of tree canopy, using only approved injection equipment.
- d. All trees and palms to be relocated shall be treated with the specified endo and ectomycorrhizal transplant inoculant at the time of transplant. The specified transplant inoculant shall be applied at the concentration and application rates recommended by the manufacturer and approved by the City.
- e. The Contractor shall form and maintain an earth berm 6-inches high outside the proposed root ball prior to watering and apply 3-inches of approved mulch within saucer. Water application shall saturate the root ball to its entire depth.

C. ROOT PRUNING

1. Watering

- a. All trees and palms to be relocated are to be provided with an automatic irrigation system, which provides 2 bubbler heads fed by PVC pipe to each tree and palm, prior to root pruning.
- b. The Contractor shall verify a source of municipal or well water and provide for a temporary meter to operate the irrigation system.
- c. The Contractor shall provide an irrigation timer, or battery powered valve to water trees and palms, which are to be relocated. Hand watering in lieu of an automatic system shall not be allowed, however hand watering shall be performed to avoid lapses should the automatic system be inoperable for more than 24 hours.

2. Barricades

- a. The Contractor shall barricade all existing trees and palms with four-foot (4') chain link fence or other barricade approved by City.
- b. Barricades shall be installed at an offset distance of 2' (two feet) outside the tree drip line/edge of tree canopy, prior to the commencement of any construction activity.

3. Root Pruning Technique

- a. All trees shall be excavated by digging a trench a minimum of 48-inches deep by 6-inches wide, either by hand or with a trenching machine designed for this purpose. The Contractor shall hand cut broadleaf tree roots after trenching to produce clean cuts with no splints or tears.
- b. Trees to be root pruned shall have a minimum root ball size of 10-inches per 1-inch of caliper measured at DBH for broad leaf trees, and 36-inches for coconut palms. Root balls are to be formed square with all trenches being equal distance from the trunk.
- c. Sabal palms shall not require root pruning.

4. Timing

- a. All broadleaf trees that are to be relocated shall be maintained for a minimum of twelve (12) weeks after root pruning and prior to relocation.
- b. Palms shall be maintained a minimum of six (6) weeks prior to relocation.

3.2 RELOCATION OF TREES AND PALMS

A. Preparation

- 1. Trees and palms shall be thoroughly soaked to the full depth of the root ball daily for seven (7) consecutive days prior to relocation.
- The Contractor shall accurately locate position and elevation where all trees are intended to be planted, for verification by Architect. The Contractor shall verify that no overhead or underground utilities, existing or proposed, conflict with the proposed locations.

3. The Contractor shall ascertain that all proposed paths for machinery are clear of utilities and other obstructions.

B. Excavation of Tree Pits

- 1. The Contractor shall notify and coordinate with the City prior to the excavation of the tree pits.
- 2. The Contractor shall dig all tree pits as shown in the drawings with vertical sides and flat bottom. Portions of the existing soil may be utilized as backfill in accordance with Section 02920-Soil Preparation and Soil Mixes.
- 3. The Contractor shall be responsible for repairing any damage to existing utilities.

C. Digging and Handling – Broadleaf Trees

- 1. The Contractor shall notify the City in writing 48 hours in advance of each relocation to allow for observation of procedures.
- 2. The Contractor shall determine the line of previous root pruning and excavate around root mass to leave area 12-inches out from the line of root pruning undisturbed. Digging shall be accomplished so as to produce clean cuts on all roots without tearing or splitting. Trenching shall be a minimum of 48-inches deep.
- 3. Trees shall be handled in such a way as to avoid damage to bark and limbs subject to support cables or chains. Attach padded support cables or chains at multiple points where possible. Alternatively, tree trunks may be drilled and doweled for broadleaf trees. The City reserves the right to require doweling in lieu of lifting straps.
- 4. Root balls shall be undercut prior to lifting. Do not force tree from ground prior to undercutting. Ball depth to be determined upon assessing conditions at time of trenching, to keep the entire root ball intact.
- 5. Trees shall be properly wrapped during moving so trunks will not be scarred and damaged and to avoid broken limbs. Broken limbs or scarred trunks shall cause tree to be unacceptable and rejected at the City's option. Broken limbs and wounds, which do not, in the City's judgement, cause the tree to be rejected, shall be cleanly cut.
- 6. The Contractor shall transport plant material on vehicles of adequate size to prevent overcrowding, broken limbs, foliage damage, or root ball damage.
- 7. Root balls and foliage shall be kept moist during all phases of relocation.
- 8. Partially backfill tree pits with 12-inches of approved stable fill prior to setting tree. This layer of soil is to be thoroughly drenched prior to relocation to achieve a stable

platform at the correct elevation so that the top of rootball is 1-inch above proposed grade.

9. Rotate tree prior to final setting to achieve best positioning relative to adjacent trees and viewing angles.

D. Backfilling

- 1. Flood bottom soil layer to settle tree into best position and to remove air pockets.
- 2. Continue to flood root ball, as planting soil is backfilled to insure removal of all air pockets.
- 3. Construct a saucer to retain water as shown in the drawings.

E. Bracing

- 1. Support tree with machinery until bracing is complete.
- 2. Buttresses may support separate trunks on multiple trunk trees.
- 3. Maintain braces until completion of project. Removal of braces shall be by others.
- 4. Stake installation:
 - a. Drive stakes perpendicularly, 3-feet. into ground at edge of root ball. Do not drive stake through root ball or soil separator or drainage gravel, if present.
 - b. Number of stakes should be as shown in the drawings.
- 5. Tying and cross-bracing:
 - a. For trees over 4-inches in caliper:
 - (1) Stake and tie firmly with nylon strapping as shown in the drawings.
 - b. For trees less than 4-inches in caliper:
 - (1) Tie nylon strapping to vertical stakes.

F. Irrigation

- 1. Install bubbler heads on all trees and palms and mist head risers in oaks. Connect each tree's system immediately to water source. Irrigation timer is to be operable prior to the time of transplanting; alternatively, battery powered valves may be utilized. The temporary irrigation system shall be maintained for a minimum of 90 days and shall be maintained in addition to the permanent irrigation, should the permanent system be operable during this time. Alternatively, transplanted trees shall be hand-watered daily for a minimum of 90 days.
- 2. Lateral lines to be buried 18-inches and marked for identification.
- 3. Set time to run daily, to provide an equivalent of 6-inches of rain per week for 30 days, then reduce to equivalent of 3-inches per week.

G. Barricading

Page 254 of 384

- 1. Barricade all existing trees and palms with four-foot (4') chain link fence or other barricade approved by City.
- 2. Barricades shall be installed at an offset distance of 2-feet outside the tree drip line/edge of tree canopy, prior to any construction activity.

3.3 PROTECTION AND CARE OF EXISTING TREES AND PALMS TO REMAIN

A. Crown Pruning

- 1. All trees and palms to remain in place within the project limit shall be pruned within 60 days of Notice to Proceed.
- 2. All trees and palms to be relocated shall be pruned on a schedule that maximizes acclimatization time prior to relocation. Pruning schedule shall be reviewed and approved by the Architect / Engineer.

B. Watering

- 1. Existing irrigation system shall remain operable throughout the project.
- 2. All onsite trees to remain shall be supplied with temporary irrigation, which shall remain operable until permanent irrigation is operable. Existing irrigation system to be demolished may be utilized as the temporary irrigation system.

C. Barricading

- 1. Barricade all existing trees and palms with four-foot (4') chain link fence or other barricade approved by City.
- 2. Barricades shall be installed at an offset distance of 2-feet outside the tree drip line/edge of tree canopy, prior to any construction activity.

END OF SECTION 329600

APPENDICES

APPENDIX A



ASBESTOS & LEAD CONTAINING PAINT SURVEY REPORT SGF PROJECT #F-3844-15

CITY OF FORT LAUDERDALE PUMP STATION A-97 150 S.W. 18TH AVENUE FORT LAUDERDALE, FLORIDA COFL PROJECT #11893

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ASBESTOS & LEAD CONTAINING PAINT SURVEY REPORT **SGF PROJECT #F-3844-15**

CITY OF FORT LAUDERDALE **PUMP STATION A-97** 150 S.W. 18TH AVENUE FORT LAUDERDALE, FLORIDA **COFL PROJECT #11893**

PREPARED FOR

Ms. Maria Paituvi, P.E. **ESciences Incorporated** 224 S.E. 9th Street Fort Lauderdale, FL 33316

PREPARED BY

SGF Environmental Consultants, Inc. 10239 West Sample Road Coral Springs, Florida 33065 (954) 344-6106 FAX (954) 753-2371

e-mail: mfell@sgfenvironmental.com

July 22, 2015

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ESciences Incorporated 224 S.E. 9th Street Fort Lauderdale, FL 33316

July 22, 2015

Attn:

Ms. Maria Paituvi, P.E.

Senior Engineer

Subject:

Asbestos & Lead Containing Paint Survey Report (#F-3844-15)

City of Fort Lauderdale Pump Station A-97

150 S.W. 18th Avenue Fort Lauderdale, FL

Dear Ms. Paituvi:

Subsequent to your requisition of April 1, 2015, and receipt of authorization to proceed on June 22, 2015, SGF Environmental Consultants, Inc. (SGF), conducted environmental services at and for the above referenced facility, located in Fort Lauderdale, Florida, on July 1, 2015.

SCOPE OF WORK

The scope of work included: (1) performance of an asbestos inspection of the accessible portions of the referenced structure, performed under the direction of a Florida licensed asbestos consultant; (2) collection of representative bulk samples of suspect asbestos-containing building materials throughout the applicable and accessible areas; (3) transport of samples to the laboratory for asbestos analysis using polarized light microscopy methodology (PLM) methodology; (4) performance of a lead containing paint survey of the accessible portions of the referenced structure, performed by an individual certified by EPA to conduct lead-based paint activities; (5) collection of representative paint chip samples of suspect lead-containing painted surfaces throughout the applicable and accessible areas; and (6) transport of samples to the laboratory for lead analysis using EPA Method SW 846 7000B. This study is subject to the limitations stated in the *Limitations* section and to the attached *Terms and Conditions*.

BACKGROUND

Based on information provided by the City of Fort Lauderdale, Pump Station A-97 is located underground at 150 S.W. 18th Avenue. The room is accessible via a fixed ladder through a 6± foot long, 3± foot diameter entry hatch. This station is scheduled for abandonment in place. The access port and interior piping, pumps, valves, etc. will be removed. The room will be backfilled with sand.



Structure Information

Pump station A-97 is an 11± foot diameter single-level cylindrical steel structure reportedly constructed *circa* the early 1960's. Ceiling height is 7.2± feet. Piping is of cast iron construction. No thermal system insulation (TSI), spray-on insulation or fireproofing, air conditioning system, visible gasket material, or ceiling, wall and flooring finishes were noted.

ASBESTOS SURVEY

Methodology

Sampling Methodology. In each applicable area, the survey personnel conducted both a visual and tactile inspection of the observed suspect materials. Prior to sample collection, the designated area to be sampled was wetted with an amended water solution to minimize the potential release of fibers. A knife, or appropriate sampling tool was used to penetrate all layers of the material and to remove a small portion of the suspect material.

The sampling tool was cleaned after the collection of each bulk sample. The sampled material was placed into a labeled plastic sample bag and sealed. Specific data pertaining to the sample material's physical condition, friability, accessibility, and other applicable data was noted at each sample location.

Three (3) bulk samples of building materials were collected from the structure, and analyzed by the laboratory for asbestos content using polarized light microscopy (PLM) methodology. The collected samples remained in the custody of SGF until they were submitted via Federal Express with chain-of-custody documentation to Environmental Hazards Services, Inc. (EHS), in Richmond, Virginia on July 8, 2015. Laboratory submittal and receipt dates are provided on the corresponding chain-of-custody documentation.

Analytical Methodology. The laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to perform bulk sample analysis (certificate number 101882-00). Bulk sample analysis for the presence of asbestos was performed in accordance with the Environmental Protection Agency's recommended test method; Interim Method 600/M4-82-020, "The Determination of Asbestos Bulk Samples" using Polarized Light Microscopy (PLM) with dispersion staining. Percentages of asbestos are estimated by visual volumetric means. False negative results may occur when the samples contain asbestos fibers too small to be resolved by the PLM analytical method. The limit of asbestos detection by PLM is approximately one percent (1%) by area.

Inaccessible Areas/Materials Not Sampled. For sampling purposes, the inaccessible/not sampled areas included: (1) fixtures; (2) equipment that would require dismantling; (3) areas exterior to or below the structure; (4) between walls where insulation or insulation on pipe work may exist (where applicable); and (5) piping and/or pipe chases that may extend outside the structure.

In the event that suspect asbestos containing materials (ACM) is encountered in inaccessible areas during renovation or demolition activities, this material(s) should be sampled and analyzed prior to removal to confirm asbestos content prior to any disturbance to the material. According to applicable federal and state regulations, suspect materials not previously analyzed, must be sampled and analyzed to determine asbestos content prior to any renovation or demolition activity, or they may be presumed asbestos containing materials (PACM).

Results

No asbestos was detected in the analyzed samples. The United States Environmental Protection Agency (US EPA) has defined ACM as those materials that contain greater than one percent (1%) asbestos. PLM analytical results are outlined in Table I. Bulk sample laboratory reports and chain-of-custody documentation are provided in *Appendix A*.

Discussion

A Notice of Demolition or Asbestos Renovation (Notification) must be provided to the Florida Department of Environmental Protection (FDEP) and/or the Broward County Pollution Prevention, Remediation and Air Quality Division (PPRAQD) at least ten (10) business days prior to the start of the following type projects:

- 1. All demolition projects whether asbestos is present or not;
- 2. All ACM renovation projects that include asbestos RACM at or above the legal thresholds (160 square feet or 260 linear feet).

Additional notification and compliance information can be obtained through the links listed below.

 Florida Department of Environmental Protection Division of Air Resource Management-Notice of Demolition or Asbestos Renovation

http://www.dep.state.fl.us/air/rules/forms/asbestos.htm

2. PPRAQD Compliance Program – Asbestos Regulations

 $\underline{http://www.broward.org/PollutionPrevention/AirQuality/AsbestosCompliance/Pages/AsbestosRegulations.aspx}$

Recommendations

SGF recommends the following:

- 1. That federal, state and local regulations regarding notification and asbestos removal requirements be reviewed for compliance prior to renovation/demolition activities;
- 2. In the event that suspect ACM is encountered in inaccessible/not sampled areas during renovation or demolition activities, these materials should be sampled and analyzed prior to removal to confirm asbestos content prior to any disturbance to the material, or they can be considered PACM.*

*Pursuant to EPA 40 CFR Part 61, Subpart M National Emission Standards for Asbestos (NESHAP), "regulated asbestos-containing material" (RACM) must be removed from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. Removal is to be conducted by a Florida licensed asbestos abatement contractor with prior notification to the appropriate state and local agencies.

LEAD CONTAINING PAINT SURVEY

The lead containing paint survey was conducted on July 1, 2015, by GLE Associates, Inc. (GLE) to provide information needed to comply with 29 CFR Part 1926 "Lead Exposure in Construction; Interim Final Rule" for future demolition and/or renovation activities. The Scope of the "Lead Exposure in Construction; Interim Final Rule" "applies to all occupational exposure to lead in all construction work in which lead, in any amount, is present in an occupationally related context."

The Occupational Safety and Health Administration (OSHA) has developed task-related triggers that require the implementation of the provisions required in 29 CFR Part 1926 due to the lack of a firm correlation between lead levels in paint and airborne lead levels during construction activities. Demolition and/or renovation activities involve tasks covered under this standard. At this time, there are no specific notification requirements associated with lead paint for this type of facility.

Methodology

Sampling Methodology. The survey was performed by observing and testing accessible painted component surfaces of the building. After the overall visual survey was completed, an inventory of painted surfaces was developed. The surveyor then subdivided the areas into homogeneous areas of apparent similar paint history. For this project, a total of four (4) samples of suspect lead containing paint were collected from the facility including: (1) the exterior entry hatch (beige); (2) interior pipe (beige); (3) interior valve (blue); and (4) interior pump (red).

Analytical Methodology. The samples were submitted to Environmental Hazards Services, LLC, an accredited laboratory recognized under EPA's National Lead Laboratory Accreditation Program (NLLAP). The samples were analyzed using EPA Method SW 846 7000B and the results are reported in percentage of lead by weight of the paint sample (% Wt).

Inaccessible Areas/Materials Not Sampled. Due to the inaccessibility of some building elements, *e.g.*, painted surfaces on the sub-grade exterior of the pump station, etc., it is conceivable that all potential lead-containing paint within the extent of this survey may not have been located and identified.

Results

The results of the observations and laboratory analysis indicate that three (3) of the four (4) painted surfaces tested contain a concentration (% by weight) of lead within the paint greater than the laboratory's detection limit, *i.e.*, the beige exterior entry hatch paint, beige interior pipe paint and red interior pump paint.

Discussion

Under the present OSHA lead construction standard, any identified lead-containing paint affected by construction activities falls under the requirements of 29 CFR 1926, there are no quantity threshold exemptions. There are no current government guidelines defining a lead paint concentration that creates a hazardous atmosphere when disturbed. Based on current OSHA guidelines, there are two options for proper handling of lead painted materials that will be disturbed during renovation/demolition activities, *i.e.*: (1) abatement of the materials prior to performance of the work; or (2) conductance of a negative exposure assessment (NEA).

Abatement Option. Although there is no state or federal requirement for removal of lead paint prior to renovation/demolition, abatement by a trained professional prior to renovation/demolition would eliminate the need for an NEA by the demolition contractor. The removal of the materials by a trained professional prior to renovation/demolition at select locations where abrasive blasting, welding, cutting and/or torch burning are planned is recommended.

NEA Option. If abatement is not performed, the employer must implement OSHA prescribed protective measures until they can demonstrate that employee exposure is not in excess of the action level. For those employees who will be disturbing lead-containing paint, their employer must conduct an NEA by monitoring employee exposure to determine if any employee is exposed to lead at or above 30 micrograms per cubic meter ($\mu g/m^3$) (8-hour Time Weighted Average (TWA)). For all identified lead painted materials where manual demolition (e.g., drywall) manual scraping, manual sanding and heat gun applications are planned: provide workers with interim protection as outlined in the OSHA Lead Construction Standard until the employee exposure monitoring indicate that that all tasks being performed are not exposing employees above the Permissible Exposure Limit (PEL).

The interim employee protection measures include but are not limited to the following: appropriate respiratory protection; appropriate personal protective clothing and equipment; change areas; hand washing facilities; biological monitoring; and training.

In accordance with the EPA, all waste generated during lead paint removal and subsequent manual demolition and/or renovation activities must be collected, containerized, sampled and characterized by Toxicity Characteristic Leaching Procedure (TCLP) testing for lead for waste disposal purposes.

The Lead Containing Paint Survey Report prepared by GLE is provided in *Appendix B*. Estimated quantities for the lead containing paint are provided in Table 2.2-1 - *Appendix B*.

Recommendations

In the event that painted surfaces not identified in this report are encountered in inaccessible areas during renovation or demolition activities, SGF recommends that this material(s) should be sampled and analyzed prior to removal to confirm lead content prior to any disturbance to the material.

LIMITATIONS

Inaccessible/not sampled areas are outlined in the text of this report. Materials encountered during renovation activities not noted in this report, should not be disturbed until they have been sampled and identified as non-asbestos materials/non-lead containing paint through laboratory analysis. In addition, this report is limited to the performance of an asbestos and lead containing paint survey. Review of OSHA requirements that may be related to work practices in confined spaces is outside the scope of this project.

The conclusions embodied in this report are based upon the information available to SGF at the time of this submittal. SGF therefore reserves the right to amend its recommendations and opinions, if information obtained at a later date so requires. In addition, the Client recognizes that the Company's services are solely for the benefit of the Client and addressee, and that any person or party designated by Client to receive information regarding work for Client may not do so without the express written permission of SGF and shall be subject to the attached SGF *Terms and Conditions*.

We have enjoyed working with you on this project. If you have any questions or comments, please do not hesitate to contact the undersigned at (954) 344-6106 or at mfell@sgfenvironmental.com.

Respectfully submitted,

SGF Environmental Consultants, Inc.

Madeline A. Fell, P.G., L.A.C.

President (7/22/2015)

Asbestos Consultants Lic. #AX0000030 Business License #ZA0000177

TABLE I

PLM Sample Results



TABLE I PLM SAMPLE RESULTS

Sample No.	Lab No.	Sample Description	Sample Location	Results
	<i>i</i>			
			Lauderdale – Pump Station A-97 ple Prefix 15-07-01351	
1	1351-001	concrete (gray/lt. green)	Vertical Slab at Entry Port	NAD
2	1351-002	concrete (gray)	Ground Slab at Entry Port	NAD
3	1351-003	sealant material (black/dk. tan)	Between Access Lid and Entry Port	NAD

PLM – Polarized Light Microscopy

NAD - No Asbestos Detected

APPENDICES

APPENDIX A

PLM Laboratory Reports &
Chain of Custody Documentation



Environmental Hazards Services, L.L.C. 7469 Whitepine Rd Richmond, VA 23237

Telephone: 800.347.4010

Client:

SGF Environ. Consultants

10239 West Sample Road Coral Springs, FL 33065

Asbestos Bulk Analysis Report

Report Number: 15-07-01351

Received Date:

07/10/2015

Analyzed Date:

07/14/2015

Reported Date:

07/15/2015

Project/Test Address: F-3844-15; COFL Pump Station A-97; 150 S.W. 18th Ave; Fort

Lauderdale, FL

Client Number:

10-3069

Laboratory Results

Fax Number:

954-753-2371

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
15-07-01351-001	A-97-1	t ed forar <u>us</u> hous cei A al Moseco casalem JEM D to Broth FLA D D J J J section 2 s	Gray Granular; Tan Paint; Inhomogeneous	NAD	100% Non-Fibrous
15-07-01351-002	A-97-2	redenitros er encues grandinos com recottos encos s do sonos garantes	Gray Granular; Homogeneous	NAD	100% Non-Fibrous
15-07-01351-003	A-97-3	1997 1993 	Black Rubber; Homogeneous	NAD	100% Non-Fibrous

Environmental Hazards Services, L.L.C

Client Number:

10-3069

Report Number:

15-07-01351

Project/Test Address: F-3844-15; COFL Pump Station A-97;

150 S.W. 18th Ave; Fort Lauderdale, FL

Lab Sample Number

Client Sample Number

Layer Type

Lab Gross Description

Asbestos

Other Materials

QC Sample:

75-M22009-3

QC Blank:

SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method:

EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst:

Christian H. Schaible

Reviewed By Authorized Signatory:

Howard Varner General Manager

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0 VELAP 460172. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND:

NAD = no asbestos detected

SGF Environmental Consultants, Inc.

10239 West Sample Road Coral Springs, Florida 33065

MATERIAL SAMPLING DATA SHEET

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DATE & TIME	TED BY:	ACCEPTED BY:		TRANSFERRED BY:	TRANSFER	RESPONSIBLE PARTY:	
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of	Page				E, FL	FORT LAUDERDALE, FL	
Turnaround: Normal	Turnaro		FELL	Project Mgr.: M. FEUL	Ave.	150 S.W. 18th	Address:
Analysis Technique: PUM	Analysis		211	Surveyor: M. Feld	Station	Project Name: COFL Pump Station	Project Nan
No.:	Lab ID No.:	15	12	Survey Date & Time:		Project No.: F-3844-15	Project No.:
			. !				

E-mail: mfell@sgfenvironmental.com (954) 344-6106 Fax: (944) 753-2371

APPENDIX B

LEAD CONTAINING PAINT SURVEY REPORT

LEAD-CONTAINING PAINT SURVEY REPORT

Pump Station A-97 150 Southwest 18th Avenue Fort Lauderdale, Florida

GLE Project No.: 15000-15360

Prepared for:

SGF Environmental Consultants, Inc. 10239 West Sample Road Coral Springs, Florida 33065

August 2015

Prepared by:



1000 NW 65th Street, Suite 100 Ft. Lauderdale, Florida 33309 754-223-2697 • Fax 754-223-2937



August 4, 2015

Ms. Madaline Fell SGF Environmental Consultants, Inc. 10239 West Sample Road Coral Springs, Florida 33065

RE: Lead-Containing Paint Survey Report Pump Station A-97 150 Southwest 18th Avenue Fort Lauderdale, Florida

Project No.: 15000-15360

Dear Ms. Fell:

GLE Associates, Inc. (GLE) performed a survey to identify lead-containing paint on July 1, 2015, at Pump Station A-97, located in Fort Lauderdale, Florida. The survey was performed by Mr. Brandon Christensen with GLE. This report outlines the sampling and testing procedures, and presents the results along with our conclusions and recommendations.

GLE appreciates the opportunity to work with you on this project. Should you have questions regarding any of the information contained in this report, please do not hesitate to contact our office.

Sincerely,

GLE Associates, Inc.

John C. Simmons

Director of South Florida Operations

Robert B. Greene, PE, PG, CIH, LEED AP

President

JCS/RBG/el

H:\Work\LEAD\15000\15360 SGF LBP- ACM @ 5 Broward County Pump Stations\Reports\A-97\A-97 Lead Survey Report.doc

GLE Associates, Inc.

1000 NW 65th Street, Suite 100 | Ft. Lauderdale, Florida 33309 | 754-223-2697 | Fax: 754-223-2937 | Jacksonville | Orlando | Tampa | Miami | Gainesville | Atlanta | Houston | Nashville | Architecture AA 0002369 • Engineer CA 5483 • Asbestos ZA 0000034 • Geology GB 0000297

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

On July 1, 2015, a lead-containing paint survey was conducted at Pump Station A-97, located at 150 Southwest 18th Avenue in Fort Lauderdale, Florida. The survey included (4) samples of entry hatch, piping and valve associated with the pump station. The survey was performed by Mr. Brandon Christensen, with GLE.

1.2 FACILITY DESCRIPTION

A summary of the facility investigated is outlined in the table below.

Facility Type:	Pump Station	

2.0 RESULTS

2.1 LEAD SURVEY PROCEDURES

It is GLE's understanding that the survey was conducted to provide information needed to comply with 29 CFR Part 1926 "Lead Exposure in Construction; Interim Final Rule" for future demolition and/or renovation activities. The Scope of the "Lead Exposure in Construction; Interim Final Rule" "applies to all occupational exposure to lead in all construction work in which lead, in any amount, is present in an occupationally related context." Due to the lack of a firm correlation between lead levels in paint and airborne lead levels during construction activities, OSHA has developed task-related triggers that require the implementation of the provisions required in 29 CFR Part 1926. Demolition and/or renovation activities involve tasks covered under this standard.

The survey was performed by observing and testing accessible painted component surfaces of the building. After the overall visual survey was completed, an inventory of painted surfaces was developed. The surveyor then subdivided the areas into homogeneous areas of apparent similar paint history. At this time, there are no specific notification requirements or requirements for removal prior to renovation/demolition associated with lead paint.

Sampling of the paint surfaces was performed by collecting a representative paint chip. The sample was submitted to Environmental Hazards Services, LLC, an accredited laboratory recognized under EPA's National Lead Laboratory Accreditation Program (NLLAP), located in Richmond, Virginia. The sample was analyzed by EPA Method SW 846 7000B and the results are reported in percentage of lead by weight of the paint sample (% Wt).

2.2 IDENTIFIED SUSPECT LEAD-CONTAINING PAINT

A total of four (4) samples of suspect lead-containing paint were collected from the facility during the survey. The results of the laboratory analyses are included in Appendix A. Photographs of the coating sampled are included in Appendix C.

A summary of the paint chip sample analytical results is outlined in the following table:

			TABLE 2.2-1: SUMMARY OF A PUMP STATION A-97 – 150 SOI FORT LAUDERDAL	UTHWEST 18 TH AVENUE			
SAMPLE #	Building	Interior or Exterior	LOCATION	COMPONENT	Color	LEAD CONCENTRATION (% BY WEIGHT)	ESTIMATED QNTY
PC-01	Pump Station	Exterior	Entry Hatch	Metal	Beige	0.022	80 sq. feet
PC-02	Pump Station	Interior	Pipe	Metal	Beige	0.074	8 linear feet / (1' diameter)
PC-03	Pump Station	Interior	Valve	Metal	Blue	< 0.0047	n/a
PC-04	Pump Station	Interior	Pump	Metal	Red	0.016	5 sq. feet

BOLD result indicates lead-containing paint.

²The requirements of the OSHA Lead in Construction Standard 29CFR 1926.62 are invoked if any amount of lead is present in the sample; there is no minimum concentration.

³Please note that the quantities outlined above reflect field verification of observed materials.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results indicate that three (3) of the four (4) painted surfaces tested contains a concentration (% by weight) of lead within the paint greater than the laboratory's detection limit.

Under the present OSHA lead construction standard, any identified lead-containing paint affected by construction activities falls under the requirements of 29 CFR 1926, there are no quantity threshold exemptions. There are no current government guidelines defining a lead paint concentration that creates a hazardous atmosphere when disturbed. Based on current OSHA guidelines, for those employees who will be disturbing lead-containing paint, their employer must conduct a negative exposure assessment (NEA) by monitoring employee exposure to determine if any employee is exposed to lead at or above 30 ug/m³ (8-hour TWA). Based on current OSHA guidelines, there are two options for proper handling of lead painted materials that will be disturbed during renovation/demolition activities, i.e.: (1) abatement of the materials prior to performance of the work; or (2) conductance of a negative exposure assessment (NEA).

The employer must implement OSHA prescribed protective measures until they can demonstrate that the employee exposure is not in excess of the action level. For any planned demolition or renovations to any facilities which contain lead-based paint, GLE recommends the following:

Abatement Option: Although there is no state or federal requirement for removal of lead paint prior to renovation/demolition, abatement by a trained professional prior to renovation/demolition would eliminate the need for an NEA by the demolition contractor. For all identified lead painted materials where abrasive blasting, welding, cutting and/or torch burning are planned: removal of lead paint by a properly trained lead removal contractor at select locations where these activities are planned.

NEA Option: If abatement is not performed prior to demolition, the employer must implement OSHA prescribed protective measures until they can demonstrate that employee exposure is not in excess of the action level. For those employees who will be disturbing lead-containing paint, their employer must conduct an NEA by monitoring employee exposure to determine if any employee is exposed to lead at or above 30 ug/m3 (8-hour Time Weighted Average (TWA)).

For all identified lead painted materials where manual demolition (e.g. drywall) manual scraping, manual sanding and heat gun applications are planned: provide workers with interim protection as outline in the OSHA Lead Construction Standard until the employee exposure monitoring indicate that that all tasks being performed are not exposing employees above the Permissible Exposure Limit (PEL).

The interim employee protection measures include but are not limited to the following: appropriate respiratory protection; appropriate personal protective clothing and equipment; change areas; hand washing facilities; biological monitoring; and training.

In accordance with the EPA, all waste generated during lead paint removal and subsequent manual demolition and/or renovation activities must be collected, containerized, sampled and characterized by Toxicity Characteristic Leaching Procedure (TCLP) testing for lead for waste disposal purposes.

4.0 LIMITATIONS AND CONDITIONS

Due to the inaccessibility of some building elements, e.g., painted surfaces on the sub-grade exterior of the pump station, etc., it is conceivable that all potential lead-containing paint within the extents of this survey may not have been located and identified. We do warrant, however, that the investigations and methodology reflect our best efforts based upon the prevailing standard of care in the environmental industry.

APPENDIX A Analytical Results and Chain of Custody



Environmental Hazards Services, L.L.C. 7469 Whitepine Rd Richmond, VA 23237 Telephone: 800.347.4010 Lead Paint Chip Analysis Report

Report Number: 15-07-00636

Client:

GLE Associates (Jacksonville)

4300 W. Cypress Street

Suite 400

Tampa, FL 33607

Received Date: 07/03/2015

Analyzed Date: 07/08/2015 Reported Date: 07/08/2015

Project/Test Address: Pump Station A-97 (1508 W. 18th Ave.); Ft. Lauderdale, FL

Collection Date: 07/01/2015

<u>Client Number:</u> 10-4022	SALUG Cidm.	Laboratory F	Results	<u>Fax Number</u> 954-968-609	-
Lab Sample Number	Client Sample Number	Collection Location	Pb (ug/g) ppm	% Pb by Wt.	Narrative ID
15-07-00636-001	PC-01	ENTRY HATCH	220	0.022	Mheca sil' Guiphenne.
15-07-00636-002	PC-02	PIPE	740	0.074	
15-07-00636-003	PC-03	VALVE	<47	<0.0047	
15-07-00636-004	PC-04	PUMP	160	0.016	

Environmental Hazards Services, L.L.C

Client Number:

10-4022

Report Number:

15-07-00636

Project/Test Address: Pump Station A-97 (1508 W. 18th Ave.); Ft. Lauderdale,

Lab Sample Number

Client Sample Number

Collection Location

Pb (ug/g) ppm

% Pb by Wt.

Narrative ID

Method:

EPA SW846 7000B

Reviewed By Authorized Signatory:

eborah Butt

Deborah Britt QA/QC Clerk

The HUD lead guidelines for lead paint chips are 0.50% by Weight, 5000 ppm, or 1.0 mg/cm². The Reporting Limit (RL) is 10.0 ug Total Pb. Paint chip area and results are calculated based on area measurements determined by the client. All internal quality control requirements associated with this batch were met, unless otherwise noted.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, etc., was provided by the client. Results reported above in mg/cm3 are calculated based on area supplied by client. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714.

LEGEND

Pb= lead

ug = microgram

ppm = parts per million

ug/g = micrograms per gram

Wt. = weight



15-07-00636

Une Date:	07/08/2015 (Wednesday)	AE		City/State/Zip: Fort Lauderdale, Florida	ates.com Acct. Number: 10-4022
	Chain-of-Custody			10000 NW 65th Street, Suite 100	E-mail: Jsimmen \$ @gleassociates.com Acct. Number: 10-4022
	Laboratories"	Environmental Hazards Services, LLC	www.leadlab.com 7469 Whitepine Rd (800) 347-4010 Richmond, VA (804) 275-4907 (fax) 23237	Company Name: GLE Associates, Inc. Address:	Phone: (954) 968-6414 Fax: (954) 968-6090

			,													
				Comments	Beise	Beise	Blue	Red								
/ipe	or pet	Window Sill Window Well		Volume (Total Liters)									-5			
Dust Wipe		= = Wii	Air	Total Time (minutes)											21.1.2	11
1	F.F.	ST WW		Flow Rate (L/min)					8						1.7	2/3/1
			# .e	% Wdd	7	7	7	7							ime:	ime:
			Paint Chip	mg/cm²					-						Date/Time:	Date/Time:
F = Front 0 = Basement	= Rear KT = Left BA - Pist PP	n - Angir on - Deuronii 2 = 2nd Fl	Area	Length X Width in inches (Provide paint chip area only if requesting mg/cm2)	×	×	×	×	×	×	×	×	×	×		
	LR = Living Room DN = Den	DA - Duning Room		Surface									~		w	
Sanijue Lyjie	Single Dust Wipe = DW Soil = S Paint Chip = PC Air = A	:Soil = CS		Collection Location (LR, KT, LTFBR, RTRBR, etc.)	Entry Harch		2 2 2 2	Pump	•				7		Signature:	Signature:
	Single Dust Paint Chip	Composite Soil F.		Client Sample ID	7.1.15 Pero1 Entry	PC-02		! horse	F						Sperse	
I-Day 3-Day	Same Day (Must Call Ahead)	Weekend (Must Cail Ahead) If no TAT is specified, sample(s) will be processed and charged as 3-Day TAT.		Date											Released by: Brandon Christerson	- Lahan
1-Day	Day (Mu	specified,	9	Type	Pe			- 18 - 18							San	V
	Same	If no TAT is processed an		Š.		2	8	4	ĸ	9	7	80		10	Released by:	Received by:

Surface Type for Dust Wipe

Abbreviations

Sample Type

City/State (Required): FT. Lauderolayle

-15360

Purchase Order Number:

FL-120502-150 8 W 18Th AVE

hors Tensed Certification Number.

* Do wipe samples submitted meet ASTM E1792 requirements?

Turn Around Time (TAT)

A-97

Pump Statton

Project Name / Testing Address: Collected by: Bandon

Š Yes

APPENDIX B Personnel and Laboratory Qualifications

Anited States Environmental Protection Agency

This is to certify that

GLE Associates, Inc.

STATED STATE

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

Florida

This certification is valid from the date of issuance and expires March 03, 2018



male to

Michelle Price, Chief

-ead, Heavy Metals, and Inorganics Branch

Certification #

FL-2060-5

January 15, 2015 Issued On

CAM #19-0322 Exhibit 3 Page 291 of 384

United States Environmental Protection Agency

This is to certify that

Brandon Christensen

WATED STAY

has fulfilled the requirements of the Toxic Substances Control Act (14CA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

In the Jurisdiction of:

Florida

This certification is valid from the date of issuance and expires February 28, 2018



Land Division

Adrienne Priselac, Manager, Toxics Office

ssued On

February 17, 2015 Certification #

FL-R-120502-2



DIVISION OF CONSOLIDATED LABORATORY SERVICES DEPARTMENT OF GENERAL SERVICES **COMMONWEALTH OF VIRGINIA**



Certifies that

VA Laboratory ID#: 460172 Environmental Hazards Services, L L C

7469 Whitepine Road Richmond, VA 23237

Owner: ROBERT GELBACH/NATIONAL TESTING LABORATORIES

Operator: HOWARD VARNER Responsible Official: HOWARD VARNER

and the National Environmental Laboratory Accreditation Conference 2003 Standard Having met the requirements of 1 VAC 30-46

is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation Effective Date: December 15, 2014

Expiration Date: December 14, 2015

Certificate # 7580

Denise M. Toney, Ph.D., HCLD

DGS Deputy Director for Laboratorick

Continued accreditation status depends on successful ongoing participation in the program.

N헕 valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) 호 Scope of Accreditation.

X 6 Scope of Accreditation.

ightherest are urged to verify the laboratory's current accreditation status.

ε δ δ

Certificate Not Transferable

Surrender Upon Revocation



Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 7580

Environmental Hazards Services, L L C 7469 Whitepine Road Richmond, VA 23237 Virginia Laboratory ID: 460172
Effective Date: December 15, 2014
Expiration Date: December 14, 2015

NON-POTABLE WATER

METHOD EPA 6010 C	ANALYTE ALUMINUM	PRIMARY VA	METHOD EPA 6010 C	ANALYTE ANTIMONY	PRIMARY VA
EPA 6010 C	ARSENIC	VA	EPA 6010 C	BARIUM	VA
EPA 6010 C	BERYLLIUM	VA	EPA 6010 C	CADMIUM	VA
EPA 6010 C	CHROMIUM	VA	EPA 6010 C	COBALT	VA
EPA 6010 C	COPPER	VA	EPA 6010 C	IRON	VA
EPA 6010 C	LEAD	VA	EPA 6010 C	MANGANESE	VA
EPA 6010 C	MOLYBDENUM	VA	EPA 6010 C	NICKEL	VA
EPA 6010 C	SELENIUM	VA	EPA 6010 C	SILVER	VA
EPA 6010 C	THALLIUM	VA	EPA 6010 C	VANADIUM	VA
EPA 6010 C	ZINC	VA	EPA 7000 B	LEAD	VA
EPA 7470 A	MERCURY	VA	AND ASSOCIATION SERVICES		e internation de la company

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	VA	EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	VA
EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	VA	EPA 3540 C	PREP: SOXHLET EXTRACTION	VA
EPA 3550 C	PREP: ULTRASONIC EXTRACTION	VA	EPA 3580 A	PREP: WASTE DILUTION	VA
EPA 600/R-93/116	ASBESTOS	VA	EPA 6010 C	ALUMINUM	VA
EPA 6010 C	ANTIMONY	VA	EPA 6010 C	ARSENIC	VA
EPA 6010 C	BARIUM	VA	EPA 6010 C	BERYLLIUM	VA
EPA 6010 C	CADMIUM	VA	EPA 6010 C	CHROMIUM	VA
EPA 6010 C	COBALT	VA	EPA 6010 C	COPPER	VA
EPA 6010 C	IRON	VA	EPA 6010 C	LEAD	VA
EPA 6010 C	MAGNESIUM	VA	EPA 6010 C	MANGANESE	VA
EPA 6010 C	MOLYBDENUM	VA	EPA 6010 C	NICKEL	VA
EPA 6010 C	SELENIUM	VA	EPA 6010 C	SILVER	VA
EPA 6010 C	THALLIUM	VA	EPA 6010 C	TITANIUM	VA
EPA 6010 C	VANADIUM	VA	EPA 6010 C	ZINC	VA
EPA 7000 B	LEAD	VA	EPA 7471B	MERCURY	VA
EPA 8082 - OIL A	AROCLOR-1016 (PCB-1016)	VA	EPA 8082 - OIL A	AROCLOR-1221 (PCB-1221)	VA
EPA 8082 - OIL A	AROCLOR-1232 (PCB-1232)	VA	EPA 8082 - OIL A	AROCLOR-1242 (PCB-1242)	VA
EPA 8082 - OIL A	AROCLOR-1248 (PCB-1248)	VA	EPA 8082 - OIL A	AROCLOR-1254 (PCB-1254)	VA
EPA 8082 - OIL A	AROCLOR-1260 (PCB-1260)	VA	EPA 8082 A	AROCLOR-1016 (PCB-1016)	VA
EPA 8082 A	AROCLOR-1221 (PCB-1221)	VA	EPA 8082 A	AROCLOR-1232 (PCB-1232)	VA
EPA 8082 A	AROCLOR-1242 (PCB-1242)	VA	EPA 8082 A	AROCLOR-1248 (PCB-1248)	VA
EPA 8082 A	AROCLOR-1254 (PCB-1254)	VA	EPA 8082 A	AROCLOR-1260 (PCB-1260)	VA

This Scope of Accreditation must accompany the Certificate issued by Virginia DCLS with the same Certificate Number indicated above.

Page 1 of 1

APPENDIX C Photographs





Upper Photo: Pump Station A-97

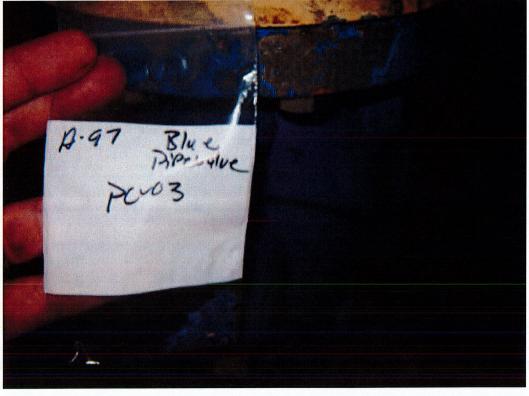
Lower Photo: PC-01 Exterior Concrete Entry Hatch Photograph Date: July 1, 2015

<u>Prepared By: G</u>LE Associates, Inc. 1000 NW 65th Street – Suite #100 Fort Lauderdale, FL 33309



Pump S	tation A-97
	erdale, Florida
BSC BSC	Job# 15000-15360
Checked MBC	Figure
Pate 07/13/2015	C-1





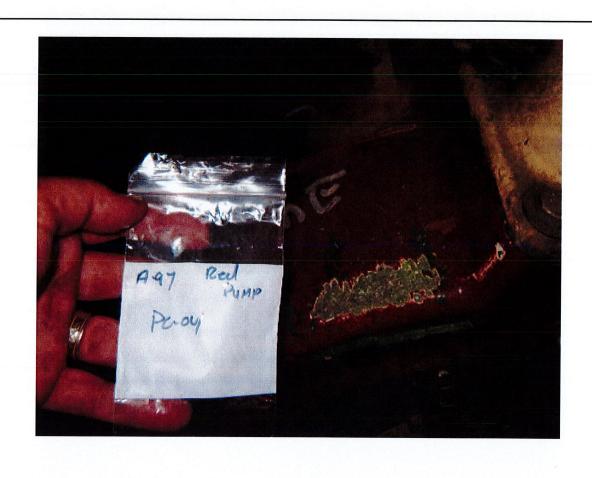
Upper Photo: PC-02 Interior Metal Pipe

Lower Photo: PC-03 Interior Metal Valve Photograph Date: July 1, 2015

<u>Prepared By: G</u>LE Associates, Inc. 1000 NW 65th Street – Suite #100 Fort Lauderdale, FL 33309



	tation A-97 erdale, Florida
BSC	Joh# 15000-15360
Checked MBC	Figure
Date 07/13/2015	C-2



Upper Photo:	Photograph Date:
PC-04 Interior Metal Pump	July 1, 2015
	<u>Prepared By:</u> GLE Associates, Inc. 1000 NW 65° Street – Suite #100 Fort Lauderdale, FL 33309

	tation A-97 lerdale, Florida
BSC BSC	Job# 15000-15360
Checked MBC	Figure
Date 07/13/2015	C-3

TERMS and CONDITIONS

TERMS and CONDITIONS

SGF Environmental Consultants, Inc. (Company) proposes to perform the services described in the attached Work Plan at a charge pursuant to the attached Fee Schedule and under the conditions and circumstances as are set forth herein as follows:

- 1. Billings/Payment: Invoices for Company's services shall be submitted at Company's option, either upon completion of such services or at the end of each calendar month, and mailed to Client at the address indicated in the attached Work Plan. All such invoices shall be payable upon receipt, and in the event that payment is not duly made within thirty (30) days, the outstanding balance shall bear interest at the rate of one and a half (1.5%) per month from date of original billing or at the highest interest rate permitted by law, whichever is less. It is further understood and agreed that if Client fails to pay any invoice due to Company within thirty (30) days after the date thereof, Company, without waiving any other claim or right against Client, and without liability whatsoever to Client, may terminate its performance hereunder. In the event that Company places any invoice which is unpaid after the due date, with an agency or an attorney for collection, Client shall pay all costs and expenses of such collection, including without limitation attorney's fees and court costs, if any.
- 2. Limitations: Client recognizes that Company's services are solely for the benefit of the Client, addressee and lender, and that any person or party designated by Client to receive information regarding work for Client may not do so without the express written consent of Company, and shall be subject to the SGF terms and conditions without modification. Company also recognizes that Company's services require decisions which are not based upon pure science but rather on judgmental considerations. Company shall perform its services in accordance with generally accepted practices. Client agrees that such services shall be rendered without any warranty, expressed or implied, and that Company shall be responsible solely for its own negligence.
- 3. Professional Liability: Client agrees to assume the defense of and to indemnify and hold harmless to such extent as will limit any and all liability, claims for damages, cost of defense, or expenses which may be brought, levied against, or incurred by Company on account of any claimed error, omission, or negligence to a sum not to exceed the aggregate of Company invoices submitted hereunder. Client further agrees to notify contractor or subcontractor who may perform work in connection with any report or study prepared by Company, of such limitation of Professional Liability for errors, omissions, or professional negligence, and to require, as a condition precedent of their performing work, a like indemnity and limitation of liability, any liability of Company to such contractor or subcontractor arising out of alleged error, omissions or professional negligence shall be allocated between Client and Company in such a mammer that the aggregate liability of the Company to all parties, including client, shall not exceed the aggregate amount of invoices submitted hereunder. If any controversy or claim arises out of or relates to this contract, or breach thereof, and if said dispute can not be settled through negotiation, the parties shall submit to binding arbitration in accordance with the Construction Industry Arbitration Rules of the AAA, and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

In the event that the Client makes claim against Company, at Law or otherwise, for any alleged error, omission, or act arising out of the performance of Company's services, and the Client fails to prove such claim upon final adjudication, then the Client shall pay all costs incurred by Company in defending itself against such claim, including, without limitation, personnel-related costs, attorneys' fees, court costs, and other claim-related expenses, including, without limitation, costs, fees and expenses of experts.

Company will not be liable for damage or injury arising from damage to or interference with subterranean structures (including without limitation, pipes, tanks, telephone cables, etc.) which are not called to Company's attention and not correctly shown on the plans furnished by Client in connection with work performed under this Work Plan.

- 4. Warranty: Consultant's makes no warranty, either expressed or implied, as to Consultant's findings, recommendations, plans, specifications, or professional advice. Consultant has endeavored to perform its services in accordance with generally accepted standards of practice in effect at the time of performance. Client recognizes that neither Consultant nor any of Consultant's subconsultants or subcontractors owes any fiduciary responsibility to client.
- 5. Right of Entry: Client hereby grants to Company or represents and warrants (if the project location is not owned by Client) that permission has been duly granted for the Right of Entry from time to time, by Company, its agents, staff, consultants, and contractors or subcontractors, upon the project location for the purpose of performing and with the right to perform all acts, studies, and research, including without limitation the making of test borings and other soil and water samplings, pursuant to the Work Plan.

The Client hereby recognizes that as part of conductance of the work scope, certain sampling procedures will result in collection of development/purge water and soil cuttings to be stored on site in clean containers until subsequent laboratory analysis is complete. Client recognizes that said containers, soils and ground water are the property of the property owner and must be disposed by the property owner according to applicable laws, at their own expense.

The Client hereby recognizes that the use of exploration equipment may unavoidably affect, alter, or damage the terrain and affect vegetation, buildings, structures, and equipment in, at, or upon the study area. Client accepts the fact that this is inherent to Company's work and will not hold Company liable or responsible for any such reasonable effect, alteration or damage.

- 6. Public Liability: Company represents and warrants that its staff is protected by Worker's Compensation insurance with statutory limits; and that Company has such coverage under Public Liability and Property Damage insurance policies which Company deems adequate. Certificates for all such policies of insurance shall be provided to Client upon written request. Only within and only to the extent of the limits and conditions of such insurance, Company agrees to indemnify and save Client harmless from any claims, demands, suits, or liabilities arising from any negligent acts by Company, its agents, staff, contractors or consultants employed or engaged by it. In no event shall Company be liable or responsible for any loss, damage, or liability, including but not limited to fire and explosion, beyond the amounts, limits, and conditions of such insurance, or if such loss, damage, or liability is excluded from such coverage of such insurance.
- 7. Duty of Client: Client agrees to defend and save Company harmless from all liability, claims, demands, and suits, including expenses of suit and reasonable attorneys' fees, arising from personal injuries, including disease and/or death, property loss or damage, injuries to others (including personnel of Client and of Company, its contractors and subcontractors performing work hereunder), or from air, water, or ground pollution or environmental degradation arising out of or in any manner connected with or related to the performance of this Work Plan, except if such injury, loss, or damage shall be caused by the sole negligence or willful misconduct of Company, its employees, agents, or representatives.

It shall be the duty of Client to advise Company promptly of any known or reasonably knowable hazardous substances or any condition existing in, on, or near the premises upon which work is to be performed by Company's employees or subcontractors that presents a potential or possible health hazard or nuisance. If Client fails to advise Company or, notwithstanding such advice, unanticipated occurrences of such substances or conditions are discovered during the course of the work, and such discovery in the judgment of Company results in or may result in injury or a health risk to persons, whether Company's personnel, Client's personnel, or others, Client agrees that it shall assume full responsibility and liability and shall hold Company harmless from any or all claims, demands, suits, or liabilities for personal injury including disease, medical expenses, including but not limited to continued health monitoring and/or death, property damage, economic loss, including consequential damages.

If any unforeseen hazardous substances or other unforeseen conditions are encountered during execution of the work which, in the judgment of the Company, significantly affect or may affect the work or the recommended Work Plan, Company will notify Client as soon as practicable. In that event, Client and Company agree to pursue one of the following: (1) If practicable, in the judgment of the Company, complete the original Work Plan; (2) Modify the Work Plan and budget estimate to include study of the previously unforeseen conditions, with this Contact being amended accordingly and in writing; or (3)Terminate the Work Plan. In the event of termination, Client agrees to pay Company in full for all work completed and fees due until written termination notice has been received by Company and to pay all costs incurred by Company prior to and in connection with discontinuing the work hereunder, such as completion of files and preparation of a written report to Client of findings to date of termination and all costs associated with subcontract termination.

- 8. Confidentiality: Company will not knowingly release information regarding work for client, except for information that is in the public domain or is provided by third parties, to any person other than Client and to persons designated by Client. Company may notify Client of conditions, if identified, which in Company's professional opinion, may present a potential public health or public safety hazard. It is the Client's responsibility to release and to notify appropriate public agencies in a timely manner of any information that may be necessary to preserve public health or public safety or in order to limit future public risks. Client agrees to hold Company harmless against any and all claims, demands, suits, or liabilities as a consequence of release of the information which may be necessary to preserve public health or safety. Notwithstanding the above, Company will exercise its best efforts to comply with any federal, state, county, or municipal law, regulation, ordinances, or legal obligations regarding the reporting of findings to appropriate public agencies. Client agrees to hold Company harmless against any and all claims, demands, suits or liabilities resulting from such actions by Company.
- 9. Opinions of Probable Clean-up and Disposal Costs: The Company may give opinions of probable clean-up and disposal costs as part of the Work Plan. These opinions may also involve approximate quantity estimates. The Client understands and agrees that quantity estimates are not accurate enough for clean-up and disposal bids. Company does not guarantee or warrant the accuracy of estimates of probable clean-up and disposal costs as compared to bids of Contractors, or compared to actual clean-up and disposal costs.
- 10. Documents: All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by Company as instruments of service shall remain the property of Company. Client agrees that all reports and other work furnished to Client or its agents, shall be utilized by the Client solely for the purposes of the contemplated project. Any documents prepared by Company which are not paid for by Client, shall be returned upon demand and shall not be used by Client for any purpose whatsoever. The Company will retain all pertinent records relating to performed services for a period of two (2) years following submission of the report, during which period the records will be made available to the Client at Company's Office at all reasonable times. Copies will be prepared by Company for Client for reasonable cost of reproduction.
- 11. SGF Environmental Consultants, Inc. is an Equal Opportunity Employer.

APPENDIX B



ASBESTOS & LEAD CONTAINING PAINT SURVEY REPORT SGF PROJECT #F-3844-15

CITY OF FORT LAUDERDALE
PUMP STATION C-3
3100 RIVERLAND ROAD
FORT LAUDERDALE, FLORIDA
COFL PROJECT #11889

ASBESTOS & LEAD CONTAINING PAINT SURVEY REPORT SGF PROJECT #F-3844-15

CITY OF FORT LAUDERDALE
PUMP STATION C-3
3100 RIVERLAND ROAD
FORT LAUDERDALE, FLORIDA
COFL PROJECT #11893

PREPARED FOR

Ms. Maria Paituvi, P.E. ESciences Incorporated 224 S.E. 9th Street Fort Lauderdale, FL 33316

PREPARED BY

SGF Environmental Consultants, Inc. 10239 West Sample Road Coral Springs, Florida 33065 (954) 344-6106 FAX (954) 753-2371

e-mail: mfell@sgfenvironmental.com

July 21, 2015

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TERMS AND CONDITIONS



ESciences Incorporated 224 S.E. 9th Street Fort Lauderdale, FL 33316

July 21, 2015

Attn: Ms. Maria Paituvi, P.E.

Senior Engineer

Subject: Asbestos & Lead Containing Paint Survey Report (#F-3844-15)

City of Fort Lauderdale Pump Station C-3

3100 Riverland Road Fort Lauderdale, FL

Dear Ms. Paituvi:

Subsequent to your requisition of April 1, 2015, and receipt of authorization to proceed on June 22, 2015, SGF Environmental Consultants, Inc. (SGF), conducted environmental services at and for the above referenced facility, located in Fort Lauderdale, Florida, on July 1, 2015.

SCOPE OF WORK

The scope of work included: (1) performance of an asbestos inspection of the accessible portions of the referenced structure, performed under the direction of a Florida licensed asbestos consultant; (2) collection of representative bulk samples of suspect asbestos-containing building materials throughout the applicable and accessible areas; (3) transport of samples to the laboratory for asbestos analysis using polarized light microscopy methodology (PLM) methodology; (4) performance of a lead containing paint survey of the accessible portions of the referenced structure, performed by an individual certified by EPA to conduct lead-based paint activities; (5) collection of representative paint chip samples of suspect lead-containing painted surfaces throughout the applicable and accessible areas; and (6) transport of samples to the laboratory for lead analysis using EPA Method SW 846 7000B. This study is subject to the limitations stated in the *Limitations* section and to the attached *Terms and Conditions*.

BACKGROUND

Based on information provided by the City of Fort Lauderdale, Pump Station C-3 is located underground at 3100 Riverland Road. The structure is accessible at street level, and is scheduled for abandonment in place. The access hatch and piping will be removed. The structure will be backfilled with sand.



Structure Information

Pump station C-3 is a 4± foot diameter, 10± foot deep cylindrical duplex submersible station of poured concrete construction. The above-ground access port is 6± foot square by 4.5± feet in length. Piping is of cast iron construction. Some reinforced rubber hose extends the length of the station. The construction date was not provided. No thermal system insulation (TSI), spray-on insulation or fireproofing, or visible gasket material were noted.

ASBESTOS SURVEY

Methodology

Sampling Methodology. In each applicable area, the survey personnel conducted both a visual and tactile inspection of the observed suspect materials. Prior to sample collection, the designated area to be sampled was wetted with an amended water solution to minimize the potential release of fibers. A knife, or appropriate sampling tool was used to penetrate all layers of the material and to remove a small portion of the suspect material.

The sampling tool was cleaned after the collection of each bulk sample. The sampled material was placed into a labeled plastic sample bag and sealed. Specific data pertaining to the sample material's physical condition, friability, accessibility, and other applicable data was noted at each sample location.

Ten (10) bulk samples of building materials were collected from the structure, and analyzed by the laboratory for asbestos content using polarized light microscopy (PLM) methodology. The collected samples remained in the custody of SGF until they were submitted via Federal Express with chain-of-custody documentation to Environmental Hazards Services, Inc. (EHS), in Richmond, Virginia on July 8, 2015. Laboratory submittal and receipt dates are provided on the corresponding chain-of-custody documentation.

Analytical Methodology. The laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to perform bulk sample analysis (certificate number 101882-00). Bulk sample analysis for the presence of asbestos was performed in accordance with the Environmental Protection Agency's recommended test method; Interim Method 600/M4-82-020, "The Determination of Asbestos Bulk Samples" using Polarized Light Microscopy (PLM) with dispersion staining. Percentages of asbestos are estimated by visual volumetric means. False negative results may occur when the samples contain asbestos fibers too small to be resolved by the PLM analytical method. The limit of asbestos detection by PLM is approximately one percent (1%) by area.

Inaccessible Areas/Materials Not Sampled. For sampling purposes, the inaccessible/not sampled areas included: (1) fixtures; (2) equipment that would require dismantling; (3) areas exterior to or below the structure; (4) between walls where insulation or insulation on pipe work may exist (where applicable); and (5) piping and/or pipe chases that may extend outside the subgrade portion of the structure.

In the event that suspect asbestos containing materials (ACM) is encountered in inaccessible areas during renovation or demolition activities, this material(s) should be sampled and analyzed prior to removal to confirm asbestos content prior to any disturbance to the material. According to applicable federal and state regulations, suspect materials not previously analyzed, must be sampled and analyzed to determine asbestos content prior to any renovation or demolition activity, or they may be presumed asbestos containing materials (PACM).

Results

No asbestos was detected in the analyzed samples. The United States Environmental Protection Agency (US EPA) has defined ACM as those materials that contain greater than one percent (1%) asbestos. PLM analytical results are outlined in Table I. Bulk sample laboratory reports and chain-of-custody documentation are provided in *Appendix A*.

Discussion

A Notice of Demolition or Asbestos Renovation (Notification) must be provided to the Florida Department of Environmental Protection (FDEP) and/or the Broward County Pollution Prevention, Remediation and Air Quality Division (PPRAQD) at least ten (10) business days prior to the start of the following type projects:

- 1. All demolition projects whether asbestos is present or not;
- 2. All ACM renovation projects that include asbestos RACM at or above the legal thresholds (160 square feet or 260 linear feet).

Additional notification and compliance information can be obtained through the links listed below.

1. Florida Department of Environmental Protection Division of Air Resource Management-Notice of Demolition or Asbestos Renovation

http://www.dep.state.fl.us/air/rules/forms/asbestos.htm

2. PPRAQD Compliance Program - Asbestos Regulations

http://www.broward.org/PollutionPrevention/AirQuality/AsbestosCompliance/Pages/AsbestosRegulations.aspx

Recommendations

SGF recommends the following:

- 1. That federal, state and local regulations regarding notification and asbestos removal requirements be reviewed for compliance prior to renovation/demolition activities;
- 2. In the event that suspect ACM is encountered in inaccessible/not sampled areas during renovation or demolition activities, these materials should be sampled and analyzed prior to removal to confirm asbestos content prior to any disturbance to the material, or they can be considered PACM.*

*Pursuant to EPA 40 CFR Part 61, Subpart M National Emission Standards for Asbestos (NESHAP), "regulated asbestos-containing material" (RACM) must be removed from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. Removal is to be conducted by a Florida licensed asbestos abatement contractor with prior notification to the appropriate state and local agencies.

LEAD CONTAINING PAINT SURVEY

The lead containing paint survey was conducted on July 1, 2015, by GLE Associates, Inc. (GLE) to provide information needed to comply with 29 CFR Part 1926 "Lead Exposure in Construction; Interim Final Rule" for future demolition and/or renovation activities. The Scope of the "Lead Exposure in Construction; Interim Final Rule" "applies to all occupational exposure to lead in all construction work in which lead, in any amount, is present in an occupationally related context."

The Occupational Safety and Health Administration (OSHA) has developed task-related triggers that require the implementation of the provisions required in 29 CFR Part 1926 due to the lack of a firm correlation between lead levels in paint and airborne lead levels during construction activities. Demolition and/or renovation activities involve tasks covered under this standard. At this time, there are no specific notification requirements associated with lead paint for this type of facility.

Methodology

Sampling Methodology. The survey was performed by observing and testing accessible painted component surfaces of the building. After the overall visual survey was completed, an inventory of painted surfaces was developed. The surveyor then subdivided the areas into homogeneous areas of apparent similar paint history. For this project, a total of seven (7) samples of suspect lead containing paint were collected from the facilities exterior surfaces including: (1) concrete (gray); (2) roof (gray); (3) pipes (red, gray and black); and (4) valves (blue and dark blue).

Analytical Methodology. The samples were submitted to Environmental Hazards Services, LLC, an accredited laboratory recognized under EPA's National Lead Laboratory Accreditation Program (NLLAP). The samples were analyzed using EPA Method SW 846 7000B and the results are reported in percentage of lead by weight of the paint sample (% Wt).

Inaccessible Areas/Materials Not Sampled. Due to the inaccessibility of some building elements, *e.g.*, painted surfaces on the sub-grade exterior of the pump station, etc., it is conceivable that all potential lead-containing paint within the extent of this survey may not have been located and identified.

Results

The results of the observations and laboratory analysis did not indicate lead concentrations above the analytical method detection limit for the tested painted surfaces.

The Lead Containing Paint Survey Report prepared by GLE is provided in *Appendix B*.

Recommendations

In the event that painted surfaces not identified in this report are encountered in inaccessible areas during renovation or demolition activities, SGF recommends that this material(s) should be sampled and analyzed prior to removal to confirm lead content prior to any disturbance to the material.

LIMITATIONS

Inaccessible/not sampled areas are outlined in the text of this report. Materials encountered during renovation activities not noted in this report, should not be disturbed until they have been sampled and identified as non-asbestos materials/non-lead containing paint through laboratory analysis. In addition, this report is limited to the performance of an asbestos and lead containing paint survey. Review of OSHA requirements that may be related to work practices in confined spaces is outside the scope of this project.

The conclusions embodied in this report are based upon the information available to SGF at the time of this submittal. SGF therefore reserves the right to amend its recommendations and opinions, if information obtained at a later date so requires. In addition, the Client recognizes that the Company's services are solely for the benefit of the Client and addressee, and that any person or party designated by Client to receive information regarding work for Client may not do so without the express written permission of SGF and shall be subject to the attached SGF *Terms and Conditions*.

We have enjoyed working with you on this project. If you have any questions or comments, please do not hesitate to contact the undersigned at (954) 344-6106 or at mfell@sgfenvironmental.com.

Respectfully submitted,

SGF Environmental Consultants, Inc.

Zadeline le. (Fe

Madeline A. Fell, P.G., L.A.C.

President (7/21/2015)

Asbestos Consultants Lic. #AX0000030 Business License #ZA0000177

TABLE I

PLM Sample Results



TABLE I PLM SAMPLE RESULTS

Sample No.	Lab No.	Sample Description	Sample Location	Results
			uderdale – Pump Station C-3 Prefix 15-07-01345	
1	1345-001	concrete vent material (lt. blue/lt. gray)	Exterior Vent (west side of housing)	NAD
2	1345-002	concrete (lt. blue/lt. gray)	Exterior of Pump Station (west side)	NAD
3	1345-003	concrete block (lt. gray)	Concrete Block - Interior (northeast side)	NAD
4	1345-004	stucco (lt. green/gray) -	Exterior of Pump Station (northeast side)	NAD
5	1345-005	stucco (lt. blue/gray)	Exterior of Pump Station (southeast side)	NAD
6	1345-006	block fill (dk. brown)	Interior of Pump Station (southeast side)	NAD
7	1345-007	concrete block grout (lt. gray)	Interior of Pump Station (southeast side)	NAD

TABLE I PLM SAMPLE RESULTS

Sample No.	Lab No.	Sample Description	Sample Location	Results
8	1345-008	concrete block (gray)	Interior of Pump Station (southeast side)	NAD
9	1345-009	block fill (black/dk. brown)	Interior of Pump Station (northeast side)	NAD
10	1345-010	concrete block grout (gray)	Interior of Pump Station (northeast side)	NAD

PLM – Polarized Light Microscopy NAD – No Asbestos Detected

APPENDICES

APPENDIX A

PLM Laboratory Reports &
Chain of Custody Documentation

Asbestos Bulk **Analysis Report**



Environmental Hazards Services, L.L.C. 7469 Whitepine Rd Richmond, VA 23237

> Telephone: 800.347.4010 Report Number: 15-07-01345

Client: SGF Environ. Consultants

Received Date: 07/10/2015 10239 West Sample Road Analyzed Date: 07/15/2015 Coral Springs, FL 33065 Reported Date: 07/15/2015

Project/Test Address: F-3844-15; COFL Pump Station C-3; 3100 Riverland Road; Fort

Lauderdale, FL

Fax Number: Client Number: Laboratory Results 954-753-2371 10-3069

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
15-07-01345-001	1		White Granular; Gray Paint-Like; Inhomogeneous	NAD	100% Non-Fibrous
15-07-01345-002	2		Gray Granular; Paint-Like; Inhomogeneous	NAD	100% Non-Fibrous
15-07-01345-003	3		Light Gray Cementitious; Homogeneous	NAD	100% Non-Fibrous
15-07-01345-004	4		Gray Cementitious; Green Paint-Like; Inhomogeneous	NAD	100% Non-Fibrous
15-07-01345-005	5		Gray Cementitious; Paint-Like; Inhomogeneous	NAD	100% Non-Fibrous

Environmental Hazards Services, L.L.C

Client Number: 10-3069

Report Number:

15-07-01345

Project/Test Address: F-3844-15; COFL Pump Station C-3; 3100 Riverland Road; Fort Lauderdale,

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
15-07-01345-006	6		Gray Cementitious; Homogeneous	NAD	100% Non-Fibrous
15-07-01345-007	7		Light Gray Cementitious; Homogeneous	NAD	100% Non-Fibrous
15-07-01345-008	8		Off-White/Gray Granular; Inhomogeneous	NAD	100% Non-Fibrous
15-07-01345-009	9		Light Gray Granular; Homogeneous	NAD	100% Non-Fibrous
15-07-01345-010	10		Light Gray Granular; Homogeneous	NAD	100% Non-Fibrous

Environmental Hazards Services, L.L.C

Client Number: 10-3069 Report Number: 15-07-01345

Project/Test Address: F-3844-15; COFL Pump Station C-3;

3100 Riverland Road; Fort Lauderdale,

FL

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials

QC Sample: 76-M22013-1

QC Blank: SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Araceli Enzler

Reviewed By Authorized Signatory:

Tasha Eaddy QA/QC Clerk

Jaha Faddy

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0 VELAP 460172. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected

SGF Environmental Consultants, Inc. 10239 West Sample Road Coral Springs, Florida 33065

(954) 344-6106 Fax: (944) 753-2371 E-mail: mfell@sgfenvironmental.com

Project Name: UDFL PUMP STATION - C-3 Project No.:_ Address: SAMPLE NUMBER a O ľĽ 3100 Ruselland ROAD RESPONSIBLE PARTY BLock Stucco Stucco Concrete Block GROUT Block oncrede Vent Concrede Block FORT LAUDERDALE, FL F-3844-15 ONCRIDE on croste block Groot ONCRETE BLOCK DESCRIPTION OF SAMPLED MATERIAL TRANSFER NUMBER S External Housing EX+, 出 NT- NESIDE 包十 エメナ MATERIAL SAMPLING DATA SHEET 2 ON SITE LOCATION OF SAMPLED MATERIAL bnishoff to apis ch SH Project Mgr.: M. FEL SESIDE Surveyor: Survey Date & Time: NESide NESIDE TRANSFERRED BY Side Sude 5 MIFEL DE XSX Non 1X BN 別の COLOR **P** TEX Jean CONDITION ACCEPTED BY: FRIABLE Page Lab ID No.: Turnaround:_ Analysis Technique: NOEMA 15-07-01345 07/15/2015 (Wednesday) Due Date: DATE & TIME

APPENDIX B LEAD CONTAINING PAINT SURVEY REPORT

LEAD-CONTAINING PAINT SURVEY REPORT

Pump Station C-3 3100 Riverland Road Fort Lauderdale, Florida

GLE Project No.: 15000-15360

Prepared for:

SGF Environmental Consultants, Inc. 10239 West Sample Road Coral Springs, Florida 33065

July 2015

Prepared by:



1000 NW 65th Street, Suite 100 Ft. Lauderdale, Florida 33309 754-223-2697 • Fax 754-223-2937



July 21, 2015

Ms. Madaline Fell SGF Environmental Consultants, Inc. 10239 West Sample Road Coral Springs, Florida 33065

RE: Lead-Containing Paint Survey Report Pump Station C-3 3100 Riverland Road Fort Lauderdale, Florida

Project No.: 15000-15360

Dear Ms. Fell:

GLE Associates, Inc. (GLE) performed a survey to identify lead-containing paint on July 1, 2015, at Pump Station C-3, located in Fort Lauderdale, Florida. The survey was performed by Mr. Brandon Christensen with GLE. This report outlines the sampling and testing procedures, and presents the results along with our conclusions and recommendations.

GLE appreciates the opportunity to work with you on this project. Should you have questions regarding any of the information contained in this report, please do not hesitate to contact our office.

Sincerely,

GLE Associates, Inc.

John C. Simmons

Director of South Florida Operations

Robert B. Greene, PE, PG, CIH, LEED AP

President

JCS/RBG/el

GLE Associates, Inc.

1000 NW 65th Street, Suite 100 | Ft. Lauderdale, Florida 33309 | 754-223-2697 | Fax: 754-223-2937 Jacksonville | Orlando | Tampa | Miami | Gainesville | Atlanta | Houston | Nashville Architecture AA 0002369 • Engineer CA 5483 • Asbestos ZA 0000034 • Geology GB 0000297

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

On July 1, 2015, a lead-containing paint survey was conducted at Pump Station C-3, located at 3100 Riverland Road in Fort Lauderdale, Florida. The survey included seven (7) samples of walls, roof, piping and valve associated with the pump station. The survey was performed by Mr. Brandon Christensen, with GLE.

1.2 FACILITY DESCRIPTION

A summary of the facility investigated is outlined in the table below.

Facility Type:	Pump Station
----------------	--------------

2.0 RESULTS

2.1 LEAD SURVEY PROCEDURES

It is GLE's understanding that the survey was conducted to provide information needed to comply with 29 CFR Part 1926 "Lead Exposure in Construction; Interim Final Rule" for future demolition and/or renovation activities. The Scope of the "Lead Exposure in Construction; Interim Final Rule" "applies to all occupational exposure to lead in all construction work in which lead, in any amount, is present in an occupationally related context." Due to the lack of a firm correlation between lead levels in paint and airborne lead levels during construction activities, OSHA has developed task-related triggers that require the implementation of the provisions required in 29 CFR Part 1926. Demolition and/or renovation activities involve tasks covered under this standard.

The survey was performed by observing and testing accessible painted component surfaces of the building. After the overall visual survey was completed, an inventory of painted surfaces was developed. The surveyor then subdivided the areas into homogeneous areas of apparent similar paint history.

After the overall visual survey was completed, an inventory of painted surfaces was developed. The surveyor then subdivided the areas into homogeneous areas of apparent similar paint history. At this time, there are no specific notification requirements or requirements for removal prior to renovation/demolition associated with lead paint.

Sampling of the paint surfaces was performed by collecting a representative paint chip. The sample was submitted to Environmental Hazards Services, LLC, an accredited laboratory recognized under EPA's National Lead Laboratory Accreditation Program (NLLAP), located in Richmond, Virginia. The sample was analyzed by EPA Method SW 846 7000B and the results are reported in percentage of lead by weight of the paint sample (% Wt).

2.2 IDENTIFIED SUSPECT LEAD-CONTAINING PAINT

A total of seven (7) samples of suspect lead-containing paint were collected from the facility during the survey. The results of the laboratory analyses are included in Appendix A. Photographs of the coating sampled are included in Appendix C.

A summary of the paint chip sample analytical results is outlined in the following table:

	TABLE 2.2-1: SUMMARY OF ANALYTICAL RESULTS PUMP STATION C-3 – 3100 RIVERLAND ROAD FORT LAUDERDALE, FLORIDA								
SAMPLE #	Building	Interior or Exterior	LOCATION	COMPONENT	Color	LEAD CONCENTRATION (% BY WEIGHT)			
PC-01	Pump Station	Exterior	Concrete Structure	Concrete	Grey	< 0.0034			
PC-02	Pump Station	Exterior	Roof	Metal	Grey	< 0.0050			
PC-03	Pump Station	Exterior	Pipe	Metal	Red	< 0.0037			
PC-04	Pump Station	Exterior	Pipe	Metal	Grey	< 0.0037			
PC-05	Pump Station	Exterior	Pipe	Metal	Black	< 0.0035			
PC-06	Pump Station	Exterior	Valve	Metal	Blue	< 0.0036			
PC-07	Pump Station	Exterior	Valve	Metal	Dark Blue	< 0.0046			

¹ **BOLD** result indicates lead-containing paint.

² The requirements of the OSHA Lead in Construction Standard 29CFR 1926.62 are invoked if any amount of lead is present in the sample; there is no minimum concentration.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results **did not** indicate lead concentrations above the analytical method detection limit for the painted surfaces tested.

4.0 LIMITATIONS AND CONDITIONS

Due to the inaccessibility of some building elements, e.g., painted surfaces on the sub-grade exterior of the pump station, etc. it is conceivable that all potential lead-containing paint within the extents of this survey may not have been located and identified. We do warrant, however, that the investigations and methodology reflect our best efforts based upon the prevailing standard of care in the environmental industry.

APPENDIX A Analytical Results and Chain of Custody



Environmental Hazards Services, L.L.C. 7469 Whitepine Rd Richmond, VA 23237 Telephone: 800.347.4010 Lead Paint Chip Analysis Report

Report Number: 15-07-00632

Client: GLE Associates (Jacksonville)

4300 W. Cypress Street

Suite 400

Tampa, FL 33607

Received Date: 07/03/2015

Analyzed Date: 07/06/2015 Reported Date: 07/07/2015

Project/Test Address: Pump Station C3 (Riverland Rd); Ft. Lauderdale, FL

Collection Date: 07/01/2015

Client Number: 10-4022		Laboratory F	Results	<u>Fax Number</u> 954-968-60	
Lab Sample Number	Client Sample Number	Collection Location	Pb (ug/g) ppm	% Pb by Wt.	Narrative ID
15-07-00632-001	PC-01	EXT. CONCRETE STRUCTURE	<34	<0.0034	
15-07-00632-002	PC-02	EXT. METAL ROOF	<50	<0.0050	L04
15-07-00632-003	PC-03	PIPE	<37	<0.0037	
15-07-00632-004	PC-04	PIPE	<37	<0.0037	
15-07-00632-005	PC-05	PIPE	<35	<0.0035	
15-07-00632-006	PC-06	VALVE	<36	<0.0036	
15-07-00632-007	PC-07	VALVE	<46	<0.0046	

Environmental Hazards Services, L.L.C

Client Number: 10-4022 Report Number: 15-07-00632

Project/Test Address: Pump Station C3 (Riverland Rd); Ft. Lauderdale, FL

Lab SampleClient SampleCollection LocationPb (ug/g)% Pb byNarrativeNumberNumberppmWt.ID

Sample Narratives:

L04: Sample contains substantial amounts of substrate which may affect the calculated results with units of ppm and % by

weight

Method: EPA SW846 7000B

Reviewed By Authorized Signatory:

Deborah Britt QA/QC Clerk

leborah Dutt

The HUD lead guidelines for lead paint chips are 0.50% by Weight, 5000 ppm, or 1.0 mg/cm². The Reporting Limit (RL) is 10.0 ug Total Pb. Paint chip area and results are calculated based on area measurements determined by the client. All internal quality control requirements associated with this batch were met, unless otherwise noted.

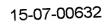
The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, etc., was provided by the client. Results reported above in mg/cm3 are calculated based on area supplied by client. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714.

LEGEND	Pb= lead	ug = microgram	ppm = parts per million
	ug/g = micrograms per gram	Wt. = weight	





Lead Chain-of-Custody





Due Date: 07/08/2015 (Wednesday) ΑE

Environmental Hazards Services, LLC

www.leadlab.com (800) 347-4010 (804) 275-4907 (fax)

7469 Whitepine Rd Richmond, VA 23237

Company Name: GIE ASSOCIATES, Inc Address: 1000 NW 65Th ST. STE 100 City/State/Zip: FT. Lenderdale, FC 333
Phone: (954) 965-6414 Fax: 934 965-6690 E-mail: Jsimmins Ogleasseriares.com Acct. Number: 10-4022
Project Name / Testing Address: Pump Sarian C3 (riverland 20) City/State (Required): Fr. Landerdale, FL
Collected by: Brandon Christasen Certification Number: FL-L-120502-1 Purchase Order Number: 15000-15360

* Do wipe samples submitted meet ASTM	E1792 requirements? Yes No		C
Turn Around Time (TAT)	Sample Type	Abbreviations	Surface Type for Dust Wipe
□1-Day □3-Day	Single Dust Wipe = DW Soil = S	FR = Family Room F = Front 0 = Basement IR = Living Room R = Rear KT = Kitchen	FL = Floor
DSame Day (Must Call Ahead)	Paint Chip = PC Air = A	LR = Living Room R = Rear KT = Kitchen DN = Den LT = Left BA = Bath	CP = Carpet
☐ Weekend (Must Call Ahead) If no TAT is specified, sample(s) will be processed and charged as 3-Day TAT.	Composite Soil = CS	DR = Dining Room RT = Right BR = Bedroom 1 = 1st Fl 2 = 2nd Fl	SL = Window Sill WW = Window Well
Sample		Area Paint Air	

			l	1										Area		Paint Chip			Air		
No.	Sample Type	Date Collected	Client Sample ID		Œ			tion I FBR,			etc.)		Surface Type	Length X Width in inches (Provide paint chip area only if requesting mg/cm2)	mg/cm²	РРМ	8	Flow Rate (U min)	Total Time (minutes)	Volume (Total Liters)	Comments
1	PC	7-1-15	PC-01	E	1	- (Car	ver	ele	2 31	Muc	741	e	x			レ				Grey
2	1		PC-02	-	LĪ			ral			,F	$\overline{}$		х			V				Grey
. 3			PC-03		1	P	e	1		T		T		x			V				Red
4			PC-04	P	-	P	e		-		1.	1		x			V				Grey
5			PC-05	P	i	છ	e		T					x			V				Black
6			PC-06	V	વ	l	U	e		-	1.			x .	1		V				Blue
7			PC-07	V	વ	L	U	e						x			V			·	Dark Blue
. 8									T			Π		x							
9														Х							
10											1			X							
Released b	y: 13	andor 1	Christer	s ei	~	•		Sign	aturo	7,	Z	-			Da	ate/Tir	ne:	1.	1.15		
Received l		Tuhan						Sign	ature	:			>		Da	ate/Tir	ne:	7/	3/10		EH5-0*

CAM #19-0322 Exhibit 3

APPENDIX B Personnel and Laboratory Qualifications

United States Environmental Protection Agency

This is to certify that

GLE Associates, Inc.

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

Florida

This certification is valid from the date of issuance and expires

March 03, 2018

FL-2060-5

Certification #

January 15, 2015

Issued On



Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch

United States Environmental Protection Agency This is to certify that



Brandon Christensen

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

In the Jurisdiction of:

Florida

This certification is valid from the date of issuance and expires

February 28, 2018

FL-R-120502-2

Certification #

February 17, 2015

Issued On



Adrienne Priselac, Manager, Toxics Office

Land Division



COMMONWEALTH OF VIRGINIA DEPARTMENT OF GENERAL SERVICES DIVISION OF CONSOLIDATED LABORATORY SERVICES



Certifies that

VA Laboratory ID#: 460172 Environmental Hazards Services, L L C

> 7469 Whitepine Road Richmond, VA 23237

Owner: ROBERT GELBACH/NATIONAL TESTING LABORATORIES

Operator: HOWARD VARNER

Responsible Official: HOWARD VARNER

Having met the requirements of 1 VAC 30-46 and the National Environmental Laboratory Accreditation Conference 2003 Standard is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: December 15, 2014
Expiration Date: December 14, 2015

Certificate # 7580

Continued accreditation status depends on successful ongoing participation in the program. Certificate to be conspicuously displayed at the laboratory.

Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.

Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Surrender Upon Revocation

1/18/2019 7:45 AM

ALLAP RECOGNIZED

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services





Scope of Accreditation

VELAP Certificate No.: 7580

Environmental Hazards Services, L L C 7469 Whitepine Road Richmond, VA 23237

Virginia Laboratory ID: 460172 Effective Date: December 15, 2014 Expiration Date: December 14, 2015

NON-POTABLE WATER

<u>METHOD</u>	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 6010 C	ALUMINUM	VA	EPA 6010 C	ANTIMONY	VA
EPA 6010 C	ARSENIC	VA	EPA 6010 C	BARIUM	VA
EPA 6010 C	BERYLLIUM	VA	EPA 6010 C	CADMIUM	VA
EPA 6010 C	CHROMIUM	VA	EPA 6010 C	COBALT	VA
EPA 6010 C	COPPER	VA	EPA 6010 C	IRON	VA
EPA 6010 C	LEAD	VA	EPA 6010 C	MANGANESE	VA
EPA 6010 C	MOLYBDENUM	VA	EPA 6010 C	NICKEL	VA
EPA 6010 C	SELENIUM	VA	EPA 6010 C	SILVER	VA
EPA 6010 C	THALLIUM	VA	EPA 6010 C	VANADIUM	VA
EPA 6010 C	ZINC	VA	EPA 7000 B	LEAD	VA
EPA 7470 A	MERCURY	VA			

SOLID AND CHEMICAL MATERIALS

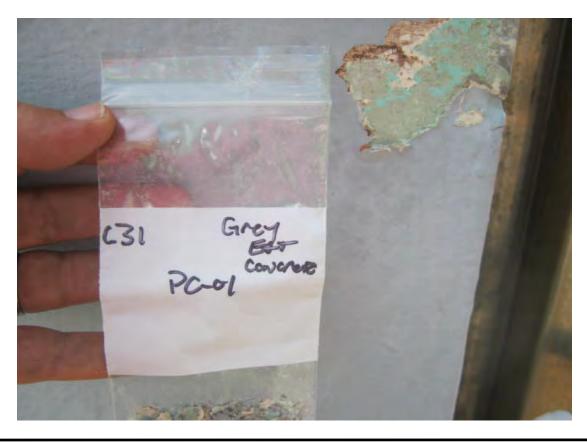
METHOD EPA 1311	ANALYTE PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	PRIMARY VA	METHOD EPA 3010 A	ANALYTE PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND	PRIMARY VA
EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	VA	EPA 3540 C	EXTRACTS FOR TOTAL METALS PREP: SOXHLET EXTRACTION	VA
EPA 3550 C	PREP: ULTRASONIC EXTRACTION	VA	EPA 3580 A	PREP: WASTE DILUTION	VA
EPA 600/R-93/116	ASBESTOS	VA	EPA 6010 C	ALUMINUM	VA
EPA 6010 C	ANTIMONY	VA	EPA 6010 C	ARSENIC	VA
EPA 6010 C	BARIUM	VA	EPA 6010 C	BERYLLIUM	VA
EPA 6010 C	CADMIUM	VA	EPA 6010 C	CHROMIUM	VA
EPA 6010 C	COBALT	VA	EPA 6010 C	COPPER	VA
EPA 6010 C	IRON	VA	EPA 6010 C	LEAD	VA
EPA 6010 C	MAGNESIUM	VA	EPA 6010 C	MANGANESE	VA
EPA 6010 C	MOLYBDENUM	VA	EPA 6010 C	NICKEL	VA
EPA 6010 C	SELENIUM	VA	EPA 6010 C	SILVER	VA
EPA 6010 C	THALLIUM	VA	EPA 6010 C	TITANIUM	VA
EPA 6010 C	VANADIUM	VA	EPA 6010 C	ZINC	VA
EPA 7000 B	LEAD	VA	EPA 7471B	MERCURY	VA
EPA 8082 - OIL A	AROCLOR-1016 (PCB-1016)	VA	EPA 8082 - OIL A	AROCLOR-1221 (PCB-1221)	VA
EPA 8082 - OIL A	AROCLOR-1232 (PCB-1232)	VA	EPA 8082 - OIL A	AROCLOR-1242 (PCB-1242)	VA
EPA 8082 - OIL A	AROCLOR-1248 (PCB-1248)	VA	EPA 8082 - OIL A	AROCLOR-1254 (PCB-1254)	VA
EPA 8082 - OIL A	AROCLOR-1260 (PCB-1260)	VA	EPA 8082 A	AROCLOR-1016 (PCB-1016)	VA
EPA 8082 A	AROCLOR-1221 (PCB-1221)	VA	EPA 8082 A	AROCLOR-1232 (PCB-1232)	VA
EPA 8082 A	AROCLOR-1242 (PCB-1242)	VA	EPA 8082 A	AROCLOR-1248 (PCB-1248)	VA
EPA 8082 A	AROCLOR-1254 (PCB-1254)	VA	EPA 8082 A	AROCLOR-1260 (PCB-1260)	VA

This Scope of Accreditation must accompany the Certificate issued by Virginia DCLS with the same Certificate Number indicated above.

Page 1 of 1

APPENDIX C Photographs





Upper Photo: Pump Station C-3

Lower Photo: PC-01 Exterior Concrete Photograph Date: July 1, 2015

<u>Prepared By:</u> GLE Associates, Inc. 1000 NW 65th Street – Suite #100 Fort Lauderdale, FL 33309



1	Pump Station C-3									
Ш	Fort Lau	derdale, Florida								
Ш	Drawn	Job#								
Ш	BSC	15000-15360								
ш	Checked	Figure								
ш	MBC									
ш	Date	C-1								
J١	07/13/2015									





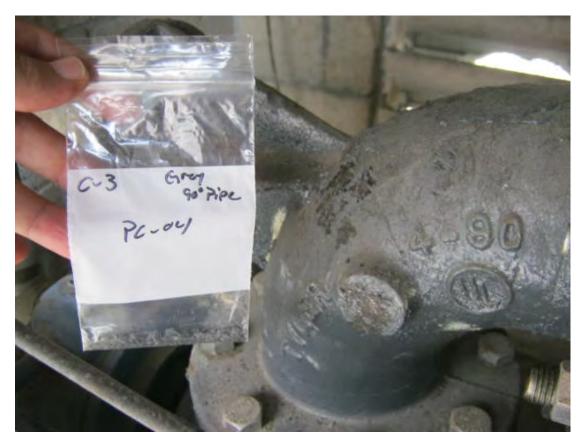
Upper Photo: PC-02 Exterior Metal Roof

Lower Photo: PC-03 Exterior Metal Pipe Photograph Date: July 1, 2015

<u>Prepared By:</u> GLE Associates, Inc. 1000 NW 65th Street – Suite #100 Fort Lauderdale, FL 33309



	_									
٦,	Pump Station C-3									
Ш	Fort Lau	derdale, Florida								
Ш	Drawn	Job#								
Ш	BSC	15000-15360								
ш	Checked	Figure								
ш	MBC									
ш	Date	C-2								
J١	07/13/2015									





Upper Photo: PC-04 Exterior Metal Pipe

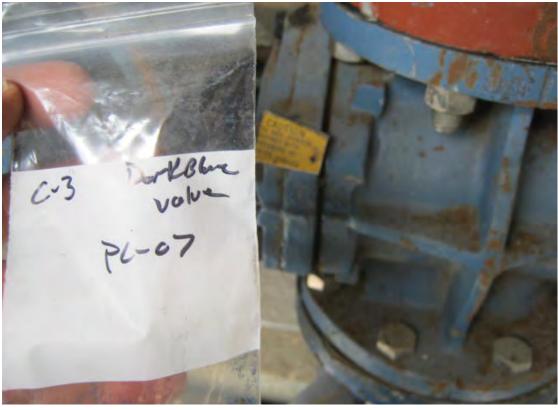
Lower Photo: PC-05Exterior Metal Pipe Photograph Date: , 2015

<u>Prepared Byr</u> GLE Associates, Inc. 1000 NW 65th Street – Suite #100 Fort Lauderdale, FL 33309



١	Pump Station C-3					
Ш	Fort Lauderdale, Florida					
Ш	Drawn	Job #				
Ш	BSC	15000-15360				
Ш	Checked	Figure				
Ш	MBC					
Ш	Date	L C-:3				
,,	07/13/2015					





<u>Upper Photo:</u> PC-06 Exterior Metal Valve

<u>Lower Photo</u>: PC-07 Exterior Metal Valve Photograph Date: July 1, 2015

<u>Prepared By:</u> GLE Associates, Inc. 1000 NW 65th Street – Suite #100 Fort Lauderdale, FL 33309



Pump :	Pump Station C-3				
	derdale, Florida				
Drawn BSC	Job# 15000-15360				
Checked MBC	Figure				
O7/10/2015	C-4				

TERMS and CONDITIONS

TERMS and CONDITIONS

SGF Environmental Consultants, Inc. (Company) proposes to perform the services described in the attached Work Plan at a charge pursuant to the attached Fee Schedule and under the conditions and circumstances as are set forth herein as follows:

- 1. Billings/Payment: Invoices for Company's services shall be submitted at Company's option, either upon completion of such services or at the end of each calendar month, and mailed to Client at the address indicated in the attached Work Plan. All such invoices shall be payable upon receipt, and in the event that payment is not duly made within thirty (30) days, the outstanding balance shall bear interest at the rate of one and a half (1.5%) per month from date of original billing or at the highest interest rate permitted by law, whichever is less. It is further understood and agreed that if Client fails to pay any invoice due to Company within thirty (30) days after the date thereof, Company, without waiving any other claim or right against Client, and without liability whatsoever to Client, may terminate its performance hereunder. In the event that Company places any invoice which is unpaid after the due date, with an agency or an attorney for collection, Client shall pay all costs and expenses of such collection, including without limitation attorney's fees and court costs, if any.
- 2. Limitations: Client recognizes that Company's services are solely for the benefit of the Client, addressee and lender, and that any person or party designated by Client to receive information regarding work for Client may not do so without the express written consent of Company, and shall be subject to the SGF terms and conditions without modification. Company also recognizes that Company's services require decisions which are not based upon pure science but rather on judgmental considerations. Company shall perform its services in accordance with generally accepted practices. Client agrees that such services shall be rendered without any warranty, expressed or implied, and that Company shall be responsible solely for its own negligence.
- 3. Professional Liability: Client agrees to assume the defense of and to indemnify and hold harmless to such extent as will limit any and all liability, claims for damages, cost of defense, or expenses which may be brought, levied against, or incurred by Company on account of any claimed error, omission, or negligence to a sum not to exceed the aggregate of Company invoices submitted hereunder. Client further agrees to notify contractor or subcontractor who may perform work in connection with any report or study prepared by Company, of such limitation of Professional Liability for errors, omissions, or professional negligence, and to require, as a condition precedent of their performing work, a like indemnity and limitation of liability, any liability of Company to such contractor or subcontractor arising out of alleged error, omissions or professional negligence shall be allocated between Client and Company in such a marmer that the aggregate liability of the Company to all parties, including client, shall not exceed the aggregate amount of invoices submitted hereunder. If any controversy or claim arises out of or relates to this contract, or breach thereof, and if said dispute can not be settled through negotiation, the parties shall submit to binding arbitration in accordance with the Construction Industry Arbitration Rules of the AAA, and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

In the event that the Client makes claim against Company, at Law or otherwise, for any alleged error, omission, or act arising out of the performance of Company's services, and the Client fails to prove such claim upon final adjudication, then the Client shall pay all costs incurred by Company in defending itself against such claim, including, without limitation, personnel-related costs, attorneys' fees, court costs, and other claim-related expenses, including, without limitation, costs, fees and expenses of experts.

Company will not be liable for damage or injury arising from damage to or interference with subterranean structures (including without limitation, pipes, tanks, telephone cables, etc.) which are not called to Company's attention and not correctly shown on the plans furnished by Client in connection with work performed under this Work Plan.

- 4. Warranty: Consultant's makes no warranty, either expressed or implied, as to Consultant's findings, recommendations, plans, specifications, or professional advice. Consultant has endeavored to perform its services in accordance with generally accepted standards of practice in effect at the time of performance. Client recognizes that neither Consultant nor any of Consultant's subconsultants or subcontractors owes any fiduciary responsibility to client.
- 5. Right of Entry: Client hereby grants to Company or represents and warrants (if the project location is not owned by Client) that permission has been duly granted for the Right of Entry from time to time, by Company, its agents, staff, consultants, and contractors or subcontractors, upon the project location for the purpose of performing and with the right to perform all acts, studies, and research, including without limitation the making of test borings and other soil and water samplings, pursuant to the Work Plan.

The Client hereby recognizes that as part of conductance of the work scope, certain sampling procedures will result in collection of development/purge water and soil cuttings to be stored on site in clean containers until subsequent laboratory analysis is complete. Client recognizes that said containers, soils and ground water are the property of the property owner and must be disposed by the property owner according to applicable laws, at their own expense.

The Client hereby recognizes that the use of exploration equipment may unavoidably affect, alter, or damage the terrain and affect vegetation, buildings, structures, and equipment in, at, or upon the study area. Client accepts the fact that this is inherent to Company's work and will not hold Company liable or responsible for any such reasonable effect, alteration or damage.

- 6. Public Liability: Company represents and warrants that its staff is protected by Worker's Compensation insurance with statutory limits; and that Company has such coverage under Public Liability and Property Damage insurance policies which Company deems adequate. Certificates for all such policies of insurance shall be provided to Client upon written request. Only within and only to the extent of the limits and conditions of such insurance, Company agrees to indemnify and save Client harmless from any claims, demands, suits, or liabilities arising from any negligent acts by Company, its agents, staff, contractors or consultants employed or engaged by it. In no event shall Company be liable or responsible for any loss, damage, or liability, including but not limited to fire and explosion, beyond the amounts, limits, and conditions of such insurance, or if such loss, damage, or liability is excluded from such coverage of such insurance.
- 7. Duty of Client: Client agrees to defend and save Company harmless from all liability, claims, demands, and suits, including expenses of suit and reasonable attorneys' fees, arising from personal injuries, including disease and/or death, property loss or damage, injuries to others (including personnel of Client and of Company, its contractors and subcontractors performing work hereunder), or from air, water, or ground pollution or environmental degradation arising out of or in any manner connected with or related to the performance of this Work Plan, except if such injury, loss, or damage shall be caused by the sole negligence or willful misconduct of Company, its employees, agents, or representatives.

It shall be the duty of Client to advise Company promptly of any known or reasonably knowable hazardous substances or any condition existing in, on, or near the premises upon which work is to be performed by Company's employees or subcontractors that presents a potential or possible health hazard or nuisance. If Client fails to advise Company or, notwithstanding such advice, unanticipated occurrences of such substances or conditions are discovered during the course of the work, and such discovery in the judgment of Company results in or may result in injury or a health risk to persons, whether Company's personnel, Client's personnel, or others, Client agrees that it shall assume full responsibility and isability and shall hold Company harmless from any or all claims, demands, suits, or liabilities for personal injury including disease, medical expenses, including but not limited to continued health monitoring and/or death, property damage, economic loss, including consequential damages.

If any unforeseen hazardous substances or other unforeseen conditions are encountered during execution of the work which, in the judgment of the Company, significantly affect or may affect the work or the recommended Work Plan, Company will notify Client as soon as practicable. In that event, Client and Company agree to pursue one of the following: (1) If practicable, in the judgment of the Company, complete the original Work Plan; (2) Modify the Work Plan and budget estimate to include study of the previously unforeseen conditions, with this Contact being amended accordingly and in writing; or (3)Terminate the Work Plan. In the event of termination, Client agrees to pay Company in full for all work completed and fees due until written termination notice has been received by Company and to pay all costs incurred by Company prior to and in connection with discontinuing the work hereunder, such as completion of files and preparation of a written report to Client of findings to date of termination and all costs associated with subcontract termination.

- 8. Confidentiality: Company will not knowingly release information regarding work for client, except for information that is in the public domain or is provided by third parties, to any person other than Client and to persons designated by Client. Company may notify Client of conditions, if identified, which in Company's professional opinion, may present a potential public health or public safety hazard. It is the Client's responsibility to release and to notify appropriate public agencies in a timely manner of any information that may be necessary to preserve public health or public safety or in order to limit future public risks. Client agrees to hold Company harmless against any and all claims, demands, suits, or liabilities as a consequence of release of the information which may be necessary to preserve public health or safety. Notwithstanding the above, Company will exercise its best efforts to comply with any federal, state, county, or municipal law, regulation, ordinances, or legal obligations regarding the reporting of findings to appropriate public agencies. Client agrees to hold Company harmless against any and all claims, demands, suits or liabilities resulting from such actions by Company.
- 9. Opinions of Probable Clean-up and Disposal Costs: The Company may give opinions of probable clean-up and disposal costs as part of the Work Plan. These opinions may also involve approximate quantity estimates. The Client understands and agrees that quantity estimates are not accurate enough for clean-up and disposal bids. Company does not guarantee or warrant the accuracy of estimates of probable clean-up and disposal costs as compared to bids of Contractors, or compared to actual clean-up and disposal costs.
- 10. Documents: All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by Company as instruments of service shall remain the property of Company. Client agrees that all reports and other work furnished to Client or its agents, shall be utilized by the Client solely for the purposes of the contemplated project. Any documents prepared by Company which are not paid for by Client, shall be returned upon demand and shall not be used by Client for any purpose whatsoever. The Company will retain all pertinent records relating to performed services for a period of two (2) years following submission of the report, during which period the records will be made available to the Client at Company's Office at all reasonable times. Copies will be prepared by Company for Client for reasonable cost of reproduction.
- 11. SGF Environmental Consultants, Inc. is an Equal Opportunity Employer.

APPENDIX C

EXHIBIT D

INSURANCE REQUIREMENTS

Project: Site Access Agreement - City Pump Station A-44 at Broward County Homeless Assistance Center

TYPE OF INSURANCE	ADDL INED	SUBR WVD	MINIMUM	LIABILITY LIMITS		
	1.00			Each Occurrence	Aggregate	
GENERAL LIABILITY - Broad form	Ø	Ø	Bodily Injury			
 ☑ Commercial General Liability ☑ Premises—Operations ☑ XCU Explosion/Collapse/Underground ☑ Products/Completed Operations Hazard ☑ Contractual Insurance 			Property Damage			
			Combined Bodily Injury and Property Damage	\$1,000,000	\$2,000,000	
☑ Broad Form Property Damage ☑ Independent Contractors ☑ Personal Injury	• *		Personal Injury			
Per Occurrence or Claims-Made:			Products & Completed Operations			
☑ Per Occurrence □ Claims-Made						
Gen'l Aggregate Limit Applies per: □ Project □ Policy □ Loc. □ Other	-24	*car				
AUTO LIABILITY ☑ Comprehensive Form	Ø	Ø	Bodily Injury (each person)			
☑ Owned ☑ Hired	14		Bodily Injury (each accident)			
☑ Non-owned ☑ Any Auto, If applicable			Property Damage			
Note: May be waived if no driving will be done in performance of services/project.		8	Combined Bodily Injury and Property Damage	\$1,000,000		
□ EXCESS LIABILITY / UMBRELLA	Ø	Ø				
Per Occurrence or Claims-Made: □ Per Occurrence □ Claims-Made						
Note: May be used to supplement minimum liability coverage requirements.					and the second s	
☑ WORKER'S COMPENSATION	N/A	Ø	Each Accident	STATUTORY LIMITS		
Note: U.S. Longshoremen & Harbor Workers' Act & Jones Act is required for any activities on or about navigable water.	A	* ,8				
☑ EMPLOYER'S LIABILITY			Each Accident	\$1,000,000		
☑ POLLUTION / ENVIRONMENTAL	Ø	Ø	If claims-made form:	\$1,000,000		
LIABILITY			Extended Reporting Period of:	3 years		
			*Maximum Deductible:	\$10 k		
☐ PROFESSIONAL LIABILITY (ERRORS & OMISSIONS)	N/A	Ø	If claims-made form:			
All engineering, surveying and design professionals.			Extended Reporting Period of:	years		
			*Maximum Deductible:	\$10 k	9	
☑ Installation floater is required if Builder's Risk or Property are not carried. Note: Coverage must be "All Risk", Completed Value.			*Maximum Deductible (Wind and/or Flood):	Not to exceed 5% of completed value	Completed Value	
			*Maximum Deductible:	\$10 k	¥	
Description of Operations: "Broward County" shall be lis 30 days written notice of cancellation to Certificate Holder shall not require contribution from Certificate Holder. *Co	, 10 day	s' notice	of cancellation for non-payment. Contractor	ed for liability. Policies shall be end rs insurance shall provide primary co	orsed to provide overage and	

		IC.			

Broward County 115 South Andrews Avenue Fort Lauderdale, Florida 33301

Risk	Management Division
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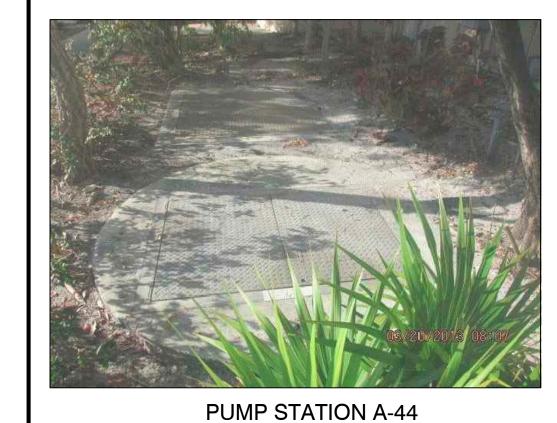
PS A-44—600 W. SUNRISE BLVD.
(AT BROWARD COUNTY HOMELESS ASSISTANCE CENTER)

PS A-97-150 SW 18 AVE.(AT SUNNY RANCH ACRES TOWNHOMES)

CITY OF FORT LAUDERDALE

PROJECT #11889
DEMOLITION & ABANDONMENT OF
PUMP STATIONS A-44, A-97, & C-3

FORT LAUDERDALE, FLORIDA

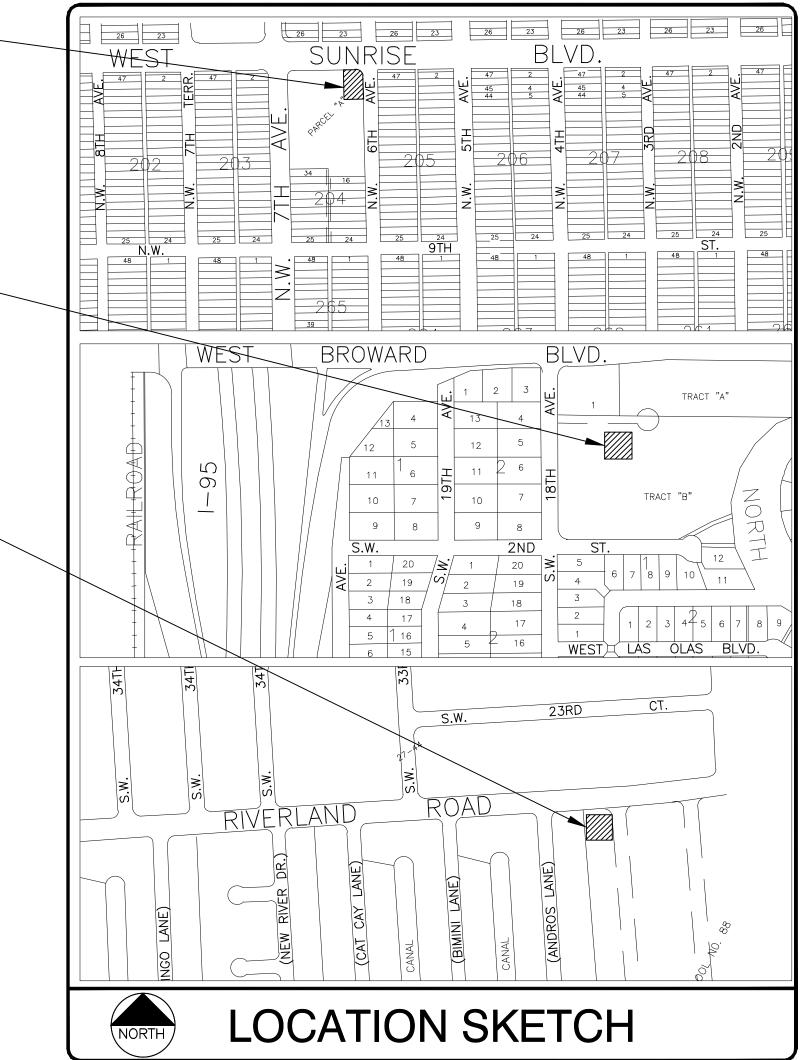




PUMP STATION A-97



PUMP STATION C-3



PROJECT #11889
DEMOLITION & ABANDONMENT OF
PUMP STATIONS A-44, A-97, & C-3

FORT LAUDERDALE, FLORIDA

STAN EDWARDS, P.E.

DRAWING FILE No.: WS-06-15

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

FORT LAUDERDALE CITY COMMISSION

DEAN J. TRANTALIS

HEATHER MORAITIS

STEVEN GLASSMAN

ROBERT McKINZIE

MAYOR

COMMISSIONER - DISTRICT II

COMMISSIONER - DISTRICT III

BEN SORENSEN COMMISSIONER - DISTRICT IV

PROJECT ENGINEER

DATE: SEP 2018

CAD FILE: 11889-000-COVR

BID SET

399\11889\DESIGN\DRAWINGS\CURRENT\BID\11889-000-COVR.DWG

DRAWING INDEX

PUMP STATION A-44 DEMOLITION PLAN

PUMP STATION A-97 DEMOLITION PLAN

PUMP STATION A-97 DEMOLITION DETAIL

PUMP STATION C-3 DEMOLITION PLAN

PUMP STATION C-3 DEMOLITION DETAIL

PUMP STATION A-44 DEMOLITION DETAIL

NOTES & LEGEND

DETAIL SHEET

LANDSCAPE PLAN

(954) 828-5071

TOTAL: CAD FILE: 11889-001-NOTE DRAWING FILE NO. WS-06-15

GENERAL CONSTRUCTION NOTES:

- 1. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY FIRE HYDRANT OR BLOW-OFF STRUCTURE WITHOUT FIRST OBTAINING PERMISSION AND A CONSTRUCTION METER FROM THE CITY OF
- 2. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING, MOVING AND RELOCATING OR REPLACING ALL WATER SERVICES OR SEWER LATERALS WHICH ARE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN FOR WATER SERVICE AND WASTEWATER SERVICE DISRUPTION FOR APPROVAL 7 (SEVEN) CALENDAR DAYS PRIOR TO THE ANTICIPATED DISRUPTION. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS 48 HOURS IN ADVANCE OF ANY WORK ON THEIR SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
- THE CONTRACTOR MUST USE EXTREME CARE TO AVOID DAMAGE OR DISRUPTION TO ANY EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. ALL PLAN LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. CONTRACTOR IS TO CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 AND ALL OTHER PARTICIPATING UTILITIES 2 FULL BUSINESS DAYS PRIOR TO CONSTRUCTION FOR FIELD MARKUP LOCATIONS OF EXISTING UTILITIES AND FACILITIES.
- 4. THE CONTRACTOR MUST INFORM THE CITY AT LEAST 48-HOURS IN ADVANCE OF CONSTRUCTION, IN WRITING IF ANY CONFLICT IS DISCOVERED DURING POT HOLE OPERATIONS FOR CLARIFICATION BY THE CITY.
- 5. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITIES DEPARTMENT OF THE CITY OF FORT LAUDERDALE AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE TO COORDINATE ANY ACTIVITY TO BE PERFORMED BY THE CITY'S UTILITIES DEPARTMENT.
- 6. IN GENERAL, EXISTING STRUCTURES AND UTILITIES ARE NOTED AS EXISTING AND/OR SHOWN IN THIN LINES. NEW CONSTRUCTION IS IN HEAVY LINES AND/OR UNDERLINED.
- 7. ALL WORK WITHIN STATE DEPARTMENT OF TRANSPORTATION (FDOT) RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH FDOT SPECIFICATIONS AND PERMIT REQUIREMENTS.
- 8. ALL WORK WITHIN BROWARD COUNTY RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH THE BROWARD COUNTY MINIMUM STANDARDS AND/OR REQUIREMENTS.
- 9. CONTRACTOR SHALL COMPLY WITH ALL LOCAL CITY, COUNTY AND STATE REGULATIONS PERTAINING TO THE CLOSING OF PUBLIC STREETS FOR USE OF TRAFFIC DURING
- 10. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC (MOT) PLANS TO FDOT, CITY OF FORT LAUDERDALE, BROWARD COUNTY AS REQUIRED FOR WORK TO BE DONE WITHIN THEIR R/W PRIOR TO COMMENCEMENT OF WORK. SPECIFIC AGENCY MOT REQUIREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 11. STATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE ESTABLISHED BASELINE AND SHALL NOT BE CONSIDERED AS DISTANCES OR AS A MEASURE OF THE LINEAR FOOTAGE OF PIPE TO BE INSTALLED.
- 12. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
- 13. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAY SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
- 14. TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS SHALL NOT BE LEFT OPEN DURING NIGHT TIME HOURS WITHOUT ADEQUATE PROTECTION.
- 15. CONTRACTOR SHALL PROMPTLY REPAIR AND RESTORE EXISTING PAVEMENT, SIDEWALKS, CURBS, DRIVEWAYS, PIPES, RESIDENTIAL AND COMMERCIAL SPRINKLER LINES, CONDUIT, CABLES, ETC. AND LANDSCAPE AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
- 16. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AS REQUIRED BY AGENCIES HAVING JURISDICTION OVER THE PROJECT AND/OR WHEN REQUIRED FOR PUBLIC SAFETY.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF WORK, FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH. SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS
- 18. LOCATION OF AIR RELEASE VALVES MAY BE FIELD ADJUSTED BY THE ENGINEER OR CITY OF FORT LAUDERDALE AS NECESSARY.
- 19. CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITY CASTINGS INCLUDING VALVE BOXES, MANHOLES, HAND HOLES, PULL BOXES, INLETS AND SIMILAR STRUCTURES IN CONSTRUCTION AREA TO BE OVERLAYED WITH ASPHALT.
- 20. EXISTING TRAFFIC SIGNS SHALL BE RESET UPON COMPLETION PER BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS. COST SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED TRAFFIC SIGNAL LOOPS PER BROWARD COUNTY TRAFFIC ENGINEERING SPECIFICATIONS; COST SHALL BE INCIDENTAL
- 21. CONTRACTOR SHALL RESTORE EXISTING PAVEMENT AND PAVEMENT MARKINGS/SIGNAGE TO ORIGINAL PRE-CONSTRUCTION CONDITION OR AS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
- 22. ALL CONSTRUCTION WITHIN FDOT R/W MUST CONFORM WITH FDOT SPECIFICATIONS, STANDARDS, AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT R/W's WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH FDOT STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.
- 23. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS AND ELEVATIONS BEFORE STARTING
- 24. ELEVATIONS SHOWN HEREON ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM

GENERAL NOTES - TRAFFIC CONTROL PLAN

- THE TRAFFIC CONTROL PLANS FOR THE PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 600-660. MUTCD AND THE STANDARD SPECIFICATIONS. THE CONTRACTOR'S RESPONSE TIME TO ALL REPORTED MALFUNCTIONS OF TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS SHALL BE NO MORE THAN TWO (2) HOURS AND SHALL RESTORE ALL MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT TO ITS LEVEL OF OPERATION PRIOR TO THE MALFUNCTIONING WITHIN TWENTY-FOUR (24) HOURS. DURING THIS TIME THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGLER PERSONNEL AND LAW ENFORCEMENT PERSONNEL AS NECESSARY TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC AT THE AFFECTED WORK ZONE. THE ENGINEER OR THE CITY OF FORT LAUDERDALE SHALL APPROVE ALL MODIFICATIONS PRIOR TO THEIR IMPLEMENTATION.
- THE CONTRACTOR SHALL MAINTAIN PROPER OPERATION OF ALL TRAFFIC SIGNAL LOOP ASSEMBLIES AND LOOP DETECTORS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CORRECT ALL LOOP ASSEMBLY/DETECTOR MALFUNCTIONS WITHIN 24 HOURS OF NOTIFICATION OF SUCH MALFUNCTIONS BY THE
- THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING.
- A REGULATORY SPEED OF 25 MPH SHALL BE POSTED WITHIN THE LIMITS OF THE WORK ZONE.
- EXISTING SIGNS AND PAVEMENT MARKINGS THAT CONFLICT WITH CONSTRUCTION SIGNS AND MARKINGS SHALL BE REMOVED DURING CONSTRUCTION. ALL EXISTING SIGNS THAT ARE REMOVED SHALL BE STOCKPILED IN A SECURE PLACE AND REINSTALLED AFTER CONSTRUCTION. REMOVE AND REPLACE ANY GROUND MOUNT SIGN BY USE OF INDEX NO. 611.
- THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.
- 7. THE CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CITY OF FORT LAUDERDALE FOR ANY AND ALL CONSTRUCTION ACTIVITIES TO BE PERFORMED AT NIGHT. NO LANE CLOSURE SHALL BE ALLOWED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM, MONDAY THROUGH FRIDAY UNLESS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. SEE SPECS FOR LIST OF UTILITY COMPANIES.
- TRAFFIC CONTROL ON ALL COUNTY RIGHTS-OF-WAY SHALL MEET THE ADDITIONAL REQUIREMENTS OF THE BROWARD COUNTY ENGINEERING
- 10. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING.
- 11. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOT'S TO BE ATS CERTIFIED.
- 12. THE CONTRACTOR SHALL ALSO COORDINATE THE CONSTRUCTION SCHEDULE WITH FDOT, BROWARD COUNTY AND THE CITY OF FORT LAUDERDALE TO AVOID LANE CLOSURES WHICH WOULD ADVERSELY AFFECT TRAFFIC DURING RUSH

LEGEND

ABBREVIATIONS

= CHAIN LINK FENCE = CORRUGATED METAL PIPE CMP CONC. = CONCRETE F.H. = FIRE HYDRANT GAS = GAS MAIN INV. = PIPE INVERT OHW = OVERHEAD WIRES R/W = RIGHT-OF-WAY LINE **RCP** = REINFORCED CONCRETE PIPE SAN = SANITARY SEWER PIPE

SMH = SANITARY MANHOLE S.V. = SEWER VALVE T.O.P. = TOP OF PIPE

UNK. = UNKNOWN TREE TYPE U.T.O. = UNABLE TO OBTAIN DATA U.V. = UNKNOWN VALVE W.V. = WATER VALVE

> = BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DEPARTMENT.

GENERAL NOTES-BROWARD COUNTY TRAFFIC ENGINEERING DEPT.

ALL PARTIES NOTE THE FOLLOWING:

- DIRECTIONAL BORES, UTILITY CONNECTIONS, THE PLACEMENT OF MOT AND ADVANCE SIGNAGE MAY BY THEIR PLACEMENT, DAMAGE/DESTROY THE COMMUNICATIONS CABLE/CONDUIT LOCATED INSIDE AND OUTSIDE THE PROJECT AREA. ADDITIONALLY, CURB/GUTTER/SIDEWALK REMOVAL/PLACEMENT, RELOCATION OF TREES, LANDSCAPING ACTIVITIES AND IRRIGATION ACTIVITIES ARE POTENTIAL CAUSES FOR DAMAGE TO BCTED'S COMMUNICATION CABLE/CONDUIT. ALL PARTIES SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN PROXIMITY TO THE COMMUNICATIONS CABLE/CONDUIT.
- 2. ANY ABOVE PROJECT ACTIVITY, INCIDENTAL OR OTHERWISE, WHICH IMPACTS OR DAMAGES THE COMMUNICATIONS CABLE/CONDUIT, SHALL BE SUBJECT TO THE FOLLOWING NOTES

<u>COMMUNICATION NOTES:</u>

THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED). ALL SYSTEM COMMUNICATIONS EQUIPMENT, CABLING AND RELATED MATERIAL SHALL COMPLY WITH BROWARD COUNTY'S LATEST EDITION OF THE MINIMUM STANDARDS AS EXPRESSED IN THE "STANDARDS AND SPECIFICATIONS COMMUNICATION INFRASTRUCTURE" DOCUMENT. PLEASE REFER TO (BCTED'S) COMMUNICATIONS POLICIES AND PROCEDURES FOR ADDITIONAL INFORMATION. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION WILL NOT ACCEPT ANY PROJECTS THAT DO NOT MEET THESE STANDARDS AND SPECIFICATIONS. IF FIBER OPTIC PULL BOXES ALREADY EXIST AT AN INTERSECTION, NO ADDITIONAL FIBER OPTIC PULL BOXES WILL NEED TO BE INSTALLED. FOR A COPY OF THESE STANDARDS REFER TO THE BROWARD COUNTY WEB SITE AT <u>WWW.BROWARD.ORG/TRAFFIC</u> UNDER PUBLICATIONS.

IF THERE ARE COPPER INTERCONNECT CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1500 FEET OF YOUR PROJECT LIMITS, CONTACT THE TRAFFIC SIGNAL TECHNICIAN III AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2761.

IF THERE ARE FIBER OPTIC CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1500 FEET OF YOUR PROJECT LIMITS CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

ALL BCTED COMMUNICATIONS CABLES/CONDUIT SHALL BE LOCATED A MINIMUM OF 48 HOURS

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION PROCEDURE FOR NOTIFICATION OF COMMUNICATION **DISRUPTION**

COPPER INTERCONNECT CABLE NOTIFICATION CONTACT PERSON
WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE TRAFFIC SIGNAL TECHNICIAN III AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00AM AND ENDING AT 3:00PM.

FIBER OPTIC CABLE NOTIFICATION CONTACT PERSON WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING

TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION

AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00AM AND ENDING AT 3:00PM.

INCLUDE THE FOLLOWING IN ANY NOTICE OF UTILITY OWNERSHIP OR WITHIN A "UTILITY OWNERS/CONTACT PERSON" TABLE:

COPPER INTERCONNECT TABLE - (TIM MILLER) BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED) 954-847-2761

FIBER OPTIC CABLE - (ROBERT BLOUNT) BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED) 954-847-2745

MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIAN

The MAINTENANCE OF TRAFFIC plan, provided by the Contractor, SHALL include provisions for pedestrian and/or school student traffic as well as vehicular traffic. The following are

The safe walk route for all school students within the vicinity of the construction zone SHALL be maintained during the times students are arriving at or leaving school. If the current walking surface cannot be maintained, then a temporary road—rock 4' walk way SHALL be created. The safe walk route SHALL be separated from the construction activity by the 4' high orange construction fence for the entire length of the project or the length of the walk route, whichever is less.

All construction equipment around any designated crosswalk SHALL cease to operate during the times students are arriving at or leaving school. All construction equipment adjacent to a designated walk route SHALL cease operating unless satisfactorily barricaded from the

In the case that a designated crossing or any portion of the designated walk route cannot be maintained, then the Contractor SHALL notify the Special Projects Coordinator at Broward County Traffic Engineering Division, (954) 847-2671, a minimum of ten (10) working days prior to closing that route in order that an alternate crossing/route can be established.

It SHALL be the responsibility of the Contractor to install any necessary pavement, road rock, pavement marking and signage and/or any pedestrian signalization and/or signal modification to accommodate an existing or alternate walk route.

It SHALL be the Contractor's responsibility to provide State Certified School Crossing Guards or Off Duty Police Officers to cross students at any locations other than those previously designated. The Contractor may use Flagmen, ONLY if they are State Certified as a School Crossing Guard.

Thirty (30) days prior to the beginning of construction the Contractor SHALL notify the Special Projects Coordinator at Broward County Traffic Engineering Division, (954) 847-2671, to arrange a pre-construction — school safety meeting.

It SHALL be the Contractor's responsibility to notify the Broward County School Board Pupil Transportation Department to arrange a pre-construction school bus route meeting at the

(754) 321-4400 Ext. #2309

Ruth Masters

<u>ruth.masters@broward.schools.com</u> • Vincent Harrell Student Transportation & Fleet Service (754) 321-4472 <u>vincent.harrell@browardschools.com</u>

Mary Tochtermann Student Transportation & Fleet Service (754) 321—4400 Ext. #2006 <u>mary.tochtermann@browardschools.com</u> This meeting is to determine all bus routes and to make any necessary arrangements for

This meeting shall include the Special Projects Coordinator from Broward County Traffic Engineering Division, (954) 847–2671.

The Contractor SHALL is responsible for providing a safe and adequate walking surface for all school children/pedestrians. The safe walk route SHALL be part of the MAINTENANCE OF

The Contractor SHALL is responsible for obtaining an approved Maintenance of Traffic Plan (MOT), including the above School/Pedestrian conditions, through Broward County Traffic Engineering Division. The conditions outlined in the MOT are in forced and fully effective as part of the proposed improvements. The Contractor SHALL is responsible for ensuring that all work associated with this project is in compliance with all the requirements of the approved MOT, including the above School/Pedestrian conditions.

The Contractor SHALL ensure that there are NO speed limit signs installed within the designated reduced school zone, at any time throughout the project.

DESCRIPTION

LEGEND:

<u>SYMBOL</u>

M ⊘	WATER METER BOX EXISTING VALVE
₩	PROPOSED VALVE
	FIRE HYDRANT
Ŏ	BENCH MARK
(N°)	TREE
NBC	NAIL IN BOTTLE CAP
NIA	NAIL IN ASPHALT
—G	EXISTING GAS LINE
——w——	EXISTING WATER MAIN
—вт—	EXISTING BURIED TELEPHONE
—т—	EXISTING TELEPHONE
—UЕ—	EXISTING UNDERGROUND ELECTRIC
—-FM	EXISTING FORCE MAIN
—он—	EXISTING OVERHEAD WIRES
—CATV—	EXISTING CABLE TELEVISION
-x-x-	EXISTING CHAIN LINK FENCE
	EXISTING WOOD FENCE
#.##	EXISTING ELEVATION
SOIL BORE	SOIL BORING LOCATION MARK
	SOIL TYPE SEPARATION MARK
NEW 4" D.I.P. (CLASS 350) FORCE MAIN	PROPOSED FORCE MAIN
	PUMP STATION
MH−# ®	MANHOLE NUMBER
MH−C#	CONFLICT MANHOLE NUMBER
8" PVC @ X.XX	PROPOSED SANITARY SEWER
<u>Y_</u>	SAN. SEWER LATERAL (DOUBLE)
	SAN. SEWER LATERAL (SINGLE)
TE: THIS LEGEND IS	INTENDED FOR MOST SANITARY

AND STORM SEWER PROJECTS. HOWEVER, THERE ARE PROJECTS USING ADDITIONAL SYMBOLS. THESE SYMBOLS WILL BE LOCATED ON OTHER SHEETS.

1/18/2019 7:45 AM

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- THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES AND OTHER FEATURES AFFECTING THE WORK PRIOR TO DEMOLITION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES WHICH MAY EFFECT THE
- 2. CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.
- 3. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION, AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED
- 4. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED.
- 5. THE FOLLOWING LIST OF STRUCTURES REQUIRING DEMOLITION IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE DRAWINGS INDICATE THE SCOPE OF DEMOLITION WHERE DEMOLITION IS REQUIRED.
- 5.1. DEMOLITION AND REMOVAL OF A 5' MIN.± STRIP OF EXISTING ON-SITE ASPHALT, CONCRETE AND CURBING AROUND THE PERIMETER OF THE EXISTING STRUCTURES AND UTILITIES BEING DEMOLISHED.
- 5.2. REMOVAL OF EXISTING ON-SITE ABOVEGROUND AND UNDERGROUND UTILITIES, INCLUDING REMOVAL OR PLUGGING OF EXISTING UTILITIES AS SHOWN ON PLANS.
- 6. PRIOR TO REMOVAL OF ANY UNDERGROUND TANK AND OTHER COMPONENT, CONTRACTOR MUST COMPLETELY DRAIN THE SYSTEMS TO AN APPROVED SANITATION TANK FOR DISPOSAL TO AN APPROVED LOCATION, AS REQUIRED BY DISPOSAL PERMIT.
- 7. PROTECT AND SAVE ALL UTILITIES, UNLESS OTHERWISE NOTED.
- 8. ALL THE CONCRETE AND PAVEMENT TO BE REMOVED MUST BE SAW CUT CLEAN PRIOR TO REMOVAL
- 9. WET DOWN MASONRY WALLS AND DEBRIS DURING DEMOLITION AND LOADING OPERATIONS TO PREVENT THE SPREAD OF DUST (AS APPLICABLE TO PROJECT).
- 10. ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS AND OTHER ON—SITE EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR (AS APPLICABLE TO PROJECT).
- 11. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AT THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
- 12. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO REMOVAL OR RELOCATION OF ANY ELECTRICAL, TELEPHONE, CABLE AND/OR GAS LINES. SUFFICIENT TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.
- 13. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER/ENGINEER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINANT IS ENCOUNTERED DURING THE DEMOLITION/EXCAVATION PROCESS.
- 14. FILL FOR LOWER LEVELS OF DEMOLISHED STRUCTURES MAY INCLUDE CONCRETE OR MASONRY RUBBLE RESULTING FROM DEMOLITION, SUBJECT TO THE ENGINEER'S/ARCHITECT'S APPROVAL. RUBBLE SHALL NOT EXCEED SIX (6) INCHES IN LONGEST
- 15. REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.
- 16. CONTINUOUS ACCESS AND OPERATION SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AND BUILDINGS AT ALL TIMES. 17. PRIOR TO DEMOLITION OCCURRING ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
- 18. ALL SIGNS OUTSIDE THE DEMOLITION AREA ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.
- 19. ANY MUCK ENCOUNTERED UNDER PROPOSED STRUCTURES SHALL BE REMOVED TO 5 FT. BEYOND THE FOOTPRINT OF THAT STRUCTURE. BACKFILL WITH APPROVED FILL MATERIAL SATISFYING ALL COMPACTION REQUIREMENTS.
- 20. ALL EXISTING UTILITIES WITHIN THE DEMOLITION SITE AREA SHALL BE ADJUSTED, REMOVED OR RELOCATED AT THE CONTRACTOR'S EXPENSE. ACTUAL WORK SHALL BE COORDINATED BY THE CONTRACTOR DIRECTLY W/ THE APPROPRIATE UTILITY COMPANY. ALL EXPENSES SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
- 21. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.
- 22. ALL TRASH, DEBRIS AND OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

PRE-DEMOLITION RESPONSIBILITIES

- UPON RECEIPT OF NOTICE OF AWARD. THE CONTRACTOR SHALL ARRANGE A PRE-DEMOLITION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES. ALL AFFECTED UTILITY OWNERS. THE OWNER. THE ENGINEER AND THE CONTRACTOR.
- 2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK.
- 3. PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE FOR THE OWNER A LISTING OF THE FACILITIES THE CONTRACTOR WILL UTILIZE FOR RECYCLING AND DISPOSAL OF SPECIFIC MATERIALS. CONTRACTOR TO SPECIFY THE MATERIALS INTENDED FOR RECYCLING AND THE MATERIALS INTENDED FOR DISPOSAL FOR OWNER'S APPROVAL.
- PRIOR TO DEMOLITION CONTRACTOR TO PROVIDE THE OWNER SKETCHES SHOWING PROPOSED HAULING ROUTES TO RECYCLING AND DISPOSAL FACILITIES FOR APPROVAL.
- 5. PRIOR TO BEGINNING DEMOLITION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF DEMOLITION.
- 6. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.
- 8. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAKE ARRANGEMENTS FOR THE FIELD LOCATIONS AND FOR ANY RELOCATION'S OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE IMPACT ON DEMOLITION SCHEDULE. ANY DELAY CAUSED BY THE CONTRACTOR BY THE RELOCATION OF UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION
- 9. SUNSHINE STATE ONE CALL OF FLORIDA, INC. REQUIRES THE CONTRACTOR TO CALL TWO (2) FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) PRIOR TO BREAKING GROUND TO FIND OUT WHERE BURIED FACILITIES (ELECTRICAL, GAS, TELEPHONE, CABLE, WATER) ARE LOCATED.

DEMOLITION SAFETY

WILL BE ALLOWED.

- 1. ALL DEMOLITION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.
- 2. PROVIDE ADEQUATE PROTECTION FOR PERSONS AND PROPERTY AT ALL TIMES. EXECUTE THE WORK IN A MANNER TO AVOID HAZARDS TO PERSONS AND PROPERTY AND PREVENT INTERFERENCE WITH THE USE OF AND ACCESS TO ADJACENT BUILDINGS. STREETS AND SIDEWALKS SHALL NOT BE UNNECESSARILY BLOCKED BY DEBRIS AND EQUIPMENT
- 3. BUILDING MATERIALS SHALL BE TESTED FOR ASBESTOS.
- 4. IF PETROLEUM PRODUCTS ARE FOUND WHILE DEMOLISHING, PETROLEUM WASTE SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

PAVEMENT DEMOLITION

- WHERE EXISTING PAVEMENT IS TO BE REMOVED. SAW-CUT THE SURFACING LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMUM DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF DEMOLITION RESULTS IN RAVELING OF SAW CUT SURFACE, RECUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.
- . WHERE EXISTING PAVEMENT, CURB, CURB AND GUTTER, SIDEWALK, DRIVEWAY, OR VALLEY GUTTER IS REMOVED FOR INLETS, MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES, SAID PAVEMENT, ETC., SHALL BE REPLACED AND RESTORED IN EQUAL OR BETTER CONDITION THAN THE ORIGINAL. CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, TOOLS, SUPPLIES, AND OTHER EQUIPMENT AS REQUIRED.
- 3. CONTRACTOR MAY LIMIT SAW—CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THIS PLAN; HOWEVER, IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, BUILDINGS, UTILITIES, ETC., THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPAIR TO EQUAL OR BETTER QUALITY.

<u>DEMOLITION PERMITTING</u>

- I. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITS FOR DEMOLITION FROM RESPONSIBLE REGULATORY AGENCIES WHILE FULLY ACKNOWLEDGING AND COMPLYING WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.
- 2. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION, RECYCLING OR REUSE REQUIRED IN ORDER TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL OF THE INFORMATION WITHIN THESE DOCUMENTS: ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.
- THE CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO COMMENCEMENT OF ANY WORK. ACTUAL REMOVAL AND/OR RELOCATION OF ALL EXISTING LANDSCAPING WITHIN DEMOLITION AREAS TO BE CONDUCTED BY A LANDSCAPE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE SITEWORK DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION ACTIVITIES WITH THE LANDSCAPE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PRESERVING TREES AS INDICATED ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TREE REMOVAL PERMIT OR ANY OTHER APPLICABLE PERMIT TO REMOVE. RELOCATE, OR PRESERVE EXISTING LANDSCAPE & TREES.
- 4. ANY TREES FOR REMOVAL FOUND TO BE GREATER THAN OR EQUAL TO THREE (3) INCHES IN DIAMETER AT BREAST HEIGHT (DBH) WILL REQUIRE A PERMIT WITH THE BROWARD COUNTY ENVIRONMENTAL PROTECTION AND GROWTH MANAGEMENT
- 5. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE THE LIGHTING, STORM INLET STRUCTURES, OR OTHER STRUCTURES DESIGNATED TO BE SAVED, THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

DEMOLITION EROSION AND SEDIMENT CONTROL NOTES:

- THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO THE FINAL DEFINITION BY THE CONTRACTOR WHO WILL BE SELECTED TO PERFORM THE WORK AND WILL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.
- 2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN ENCOMPASSING THE PRINCIPALS AND THE REQUIREMENTS DESCRIBED HEREIN AND A SCHEDULE FOR THEIR IMPLEMENTATION AND MAINTENANCE FOR THE PROJECT DURATION.
- 3. DURING DEMOLITION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTATION OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEMS AND ADJACENT WATER BODIES AND WETLANDS, IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.
- METHODS MAY INCLUDE DEMOLITION OF TEMPORARY CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS OR THE BEST MANAGEMENT PRACTICES AVAILABLE TO THE INDUSTRY.
- 5. EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED THROUGHOUT THE DEMOLITION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
- 6. THROUGHOUT THE DEMOLITION PERIOD, THE CONTRACTOR SHALL INSPECT DAILY THE PROTECTIVE INSTALLATIONS FOR FAILURE
- OR SIGNS OF FAILURE OR MALFUNCTION AND EFFECT REPAIRS OR REPLACEMENT IMMEDIATELY UPON DISCOVERY.
- 7. INLETS AND CATCH BASINS, EXISTING ON-SITE AND OFF-SITE, SHALL BE PROTECTED FROM SEDIMENT STORM RUNOFF.
- 8. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL MUD, DIRT OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC ROADS AND FACILITIES DUE TO DEMOLITION.
- 9. DEWATERING ACTIVITIES WILL NOT RESULT IN ANY DISCHARGE OF TURBID WATER FROM THE PROJECT SITE WITHOUT PROPER EROSION AND SEDIMENT CONTROL AND APPROVAL FROM ENGINEER.
- 10. PHASING OF EROSION CONTROL DEMOLITION SHALL BE RECOMMENDED AS FOLLOWS:
- 10.1. PLACEMENT OF PERIMETER PROTECTIVE MEASURES (SILT FENCE, HAY BALES, TURBIDITY BARRIERS, ETC.) AROUND ON-SITE FEATURES TO BE RETAINED, AT POINTS OF OFF-SITE DISCHARGE AND AROUND WORK AREAS TO BE EXCAVATED OR FILLED.
- 10.2. REROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEMOLITION AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY DEMOLITION. BERMS, SWALES AND OTHER MEANS USED FOR SUCH CONVEYANCE SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION OCCURS (AS APPLICABLE TO THE PROJECT).
- 10.3. SELECT LOCATIONS FOR PLACEMENT OF EXCAVATED MATERIAL, WHERE SUITABLE FOR FILL OR UNSUITABLE MATERIAL, AND CONSTRUCT CONTAINMENT BERMS AROUND THE AREA. THE USE OF STRIPING FOR THIS PURPOSE MAY ACCELERATE BERM REVEGETATION. CONSTRUCT TEMPORARY OUTLETS FOR CONTAINMENT AREAS WITH SCREENS, HAY BALES, SETTLING BASINS OR OTHER MEASURES TO PREVENT SILT TRANSPORT.
- 10.4. SELECT / DESIGNATE ACCESS ROUTING FOR DEMOLITION EQUIPMENT AND VEHICLES AND PROVIDE PERIMETER PROTECTIVE MEASURÉS WHERE EXISTING TERRAIN WILL BE SUBJECT TO DISRUPTION BY SUCH TRAFFIC.
- 10.5. CONSTRUCT ABOVE GROUND OR OTHER CONTAINMENT AREAS FOR DEMOLITION AREA RUNOFF. PROVIDE SCREENS, HAY BALES, ETC. TO FILTER DISCHARGE FROM THOSE AREAS.
- 10.6. SPOIL MOUNDS SHALL NOT BE LEFT FOR MORE THAN ONE WEEK PRIOR TO REPLACEMENT UNLESS PROTECTIVE CONTAINMENT MEASURES IN THE WORK AREA ARE APPLIED.
- 10.7. GRASSING, SODDING, ETC. SHALL BE IN PLACE IMMEDIATELY UPON COMPLETION OF REGRADING, SWALE SLOPES AND THE CONSTRUCTED OR DISTURBED AREAS.
- 11. THE CONTRACTOR IS REQUIRED TO ADHERE TO THE REQUIREMENT OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES). THE CONTRACTOR SHALL INSTITUTE BEST MANAGEMENT PRACTICES (BMPs) TO ENSURE COMPLIANCE WITH THE NPDES PROGRAM AND TO MINIMIZE THE IMPACT TO PUBLIC STORMWATER FACILITIES. A NOTICE OF INTENT (NOI) SHALL BE FILED PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- 12. PRIOR TO CONSTRUCTION, A SILT FENCE IN ACCORDANCE WITH CITY'S DETAIL SILT FENCE SHALL BE ERECTED AS NOTED ON PLANS. ALL PROPOSED CATCH BASINS WILL HAVE THEIR INLETS PROTECTED BY THE INSTALLATION OF FILTER FABRIC INTO THE FRAME AND GRATE. THIS SILT FENCE AND FILTER FABRIC WILL REMAIN IN PLACE DURING THE ENTIRE DURATION OF CONSTRUCTION.
- 13. CONTRACTOR WILL BRACE ALL EXISTING LANDSCAPING TO REMAIN PRIOR TO BEGINNING ANY WORK AND WILL ENSURE THEIR STABILIZATION THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EXISTING SOD DISTURBED BY CONSTRUCTION THAT IS NOT AFFECTED BY PROPOSED GRADING WILL BE RESTORED TO ITS ORIGINAL STATE UPON COMPLETION OF CONSTRUCTION. SODDED SLOPES STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL WILL BE PEGGED.
- 14. ALL WASTE GENERATED FROM THE CONSTRUCTION SHALL BE DISCARDED IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS. CONTRACTOR IS TO OBTAIN ALL APPLICABLE CODES AND BECOME FAMILIAR WITH STATE, LOCAL AND FEDERAL REGULATIONS PRIOR TO BEGINNING CONSTRUCTION. REGULATIONS CAN BE FOUND, BUT NOT LIMITED TO, DEPARTMENT OF ENVIRONMENTAL RESOURCE MANAGEMENT AND DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- 15. TO ENSURE THAT OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST IS MINIMIZED, CONTRACTOR IS TO PUT INTO PRACTICE THE METHODS DETAILED IN FDOT INDEX 106 (LATEST VERSION) AND BMPs.
- 16. DUST GENERATED FROM CONSTRUCTION WILL BE MINIMIZED BY DAILY WATERING OF THE SITE.
- 17. AT ANY TIME DURING CONSTRUCTION THAT THE SILT FENCING IS DISTURBED, THE SILT FENCING SHALL BE RESTORED TO ITS ORIGINAL STATE WITHIN 24 HOURS. AT NO TIME DURING CONSTRUCTION SHALL WORK BE PERFORMED WITHOUT THE INTEGRITY OF THE SILT FENCING SECURED.
- 18. A QUALIFIED INSPECTOR, PROVIDED BY THE OPERATOR, SHALL INSPECT ALL POINTS OF DISCHARGE INTO NEARBY SURFACE WATER OF THE STATE AND SFWMD. THE INSPECTION WILL OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. INSPECTION INCLUDES THE WRITTEN RECORDING OF THE CONDITION OF ALL DISCHARGE POINTS. INTEGRITY OF SILT FENCING, DAILY DUST CONTROL MEASURES. VEHICULAR TRAFFIC AND CONSTRUCTION MATERIAL STORAGE AND DISPOSAL. WRITTEN RECORD OF ALL INSPECTIONS WILL BE STORED BY THE OPERATOR DURING CONSTRUCTION.

DEMOLITION EROSION AND SEDIMENT CONTROL NOTES (CONT'D):

- 19. THE INSPECTION REPORT WILL INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING INFORMATION: NAME AND QUALIFICATION OF PERSONNEL MAKING THE INSPECTION, DATE OF INSPECTION, RAINFALL DATE, MAJOR OBSERVATIONS RELATING TO THE SWPPP, ACTIONS TAKEN BY CONTRACTOR AND ANY INCIDENT OF NONCOMPLIANCE WITH PERMIT. WHERE AN INSPECTION DOES NOT IDENTIFY ANY INCIDENT OF NONCOMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND THE PERMIT.
- 20. THE PERMITTEE SHALL RETAIN A COPY OF THE SWPPP AND ALL REPORTS, RECORDS AND DOCUMENTATION REQUIRED BY THE PERMIT AT THE CONSTRUCTION SITE, OR AN APPROPRIATE ALTERNATIVE LOCATION AS SPECIFIED IN THE NOTICE OF INTENT, FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION. THE PERMITEE SHALL RETAIN COPIES OF SWPPP AND ALL REPORTS REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THE PERMIT, FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THAT THE SITE IS FINALLY
- 21. SEE LANDSCAPE PLANS FOR TREE REMOVAL AND LANDSCAPE DEMOLITION.
- 22. CONTRACTOR SHALL COORDINATE THROUGH CONSTRUCTION DIVISION AND CITY OF FORT LAUDERDALE PARKS DEPARTMENT ON HOW TO STOCK AND RE-USE EXCAVATED SOIL FROM SITE (AS APPLICABLE TO THE PROJECT).

INTERRUPTION OF EXISTING UTILITIES

ANY DEMOLITION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR NOTICE TO, AND WRITTEN APPROVAL BY, THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUT DOWN TO ASSESS THE SCOPE OF WORK. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE

REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR. EACH CUSTOMER AFFECTED BY THE SHUT DOWN

FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

TEMPORARY DEMOLITION FACILITIES

SHALL BE PROVIDED, MINIMUM,

- 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO ITS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING DEMOLITION.
- 2. MAINTENANCE OF TRAFFIC (MOT) IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD AND FDOT.
- 3. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
- 4. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS WRITTEN PERMISSION OF THE CITY OR RESPECTIVE GOVERNING AGENCY.

DISPOSAL OF WASTE

- GENERAL: EXCEPT FOR ITEMS OR MATERIALS TO BE SALVAGED, RECYCLED OR OTHERWISE REUSED, REMOVE WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN A LANDFILL OR OTHER PERMITTED DISPOSAL FACILITY.
- 1.1. EXCEPT AS OTHERWISE SPECIFIED, DO NOT ALLOW WASTE MATERIALS THAT ARE TO BE DISPOSED OF TO ACCUMULATE ON-SITE.
- 1.2. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
- 2. BURNING: DO NOT BURN WASTE MATERIALS.
- 3. DISPOSAL: TRANSPORT WASTE MATERIALS OFF THE OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.

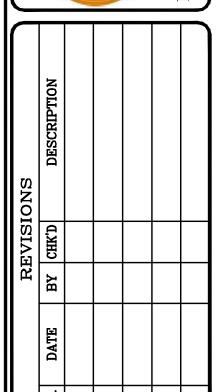
<u>WORKING HOURS</u>

THERE SHALL BE NO ADDITIONAL COMPENSATION TO THE CONTRACTOR SHOULD IT BE NECESSARY FOR THE WORK TO BE EXECUTED OUTSIDE OF NORMAL WORKING HOURS. THERE SHALL BE NO ADDITIONAL PAYMENT FOR WORKING AT NIGHTS, WEEKENDS, OR ON HOLIDAYS. CONTRACTOR SHALL ALLOW FOR SUCH IN HIS BID PRICING.

ABBREVIATIONS LEGEND

INV. = PIPE INVERT ELEVATION E.O.P. = EDGE OF PAVEMENTNGVD = NATIONAL GEODETIC VERTICAL DATUM NAVD = NORTH AMERICAN VERTICAL DATUM





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PUMP STATION A-44 DEMOLITION & SEWER LATERAL

9+00

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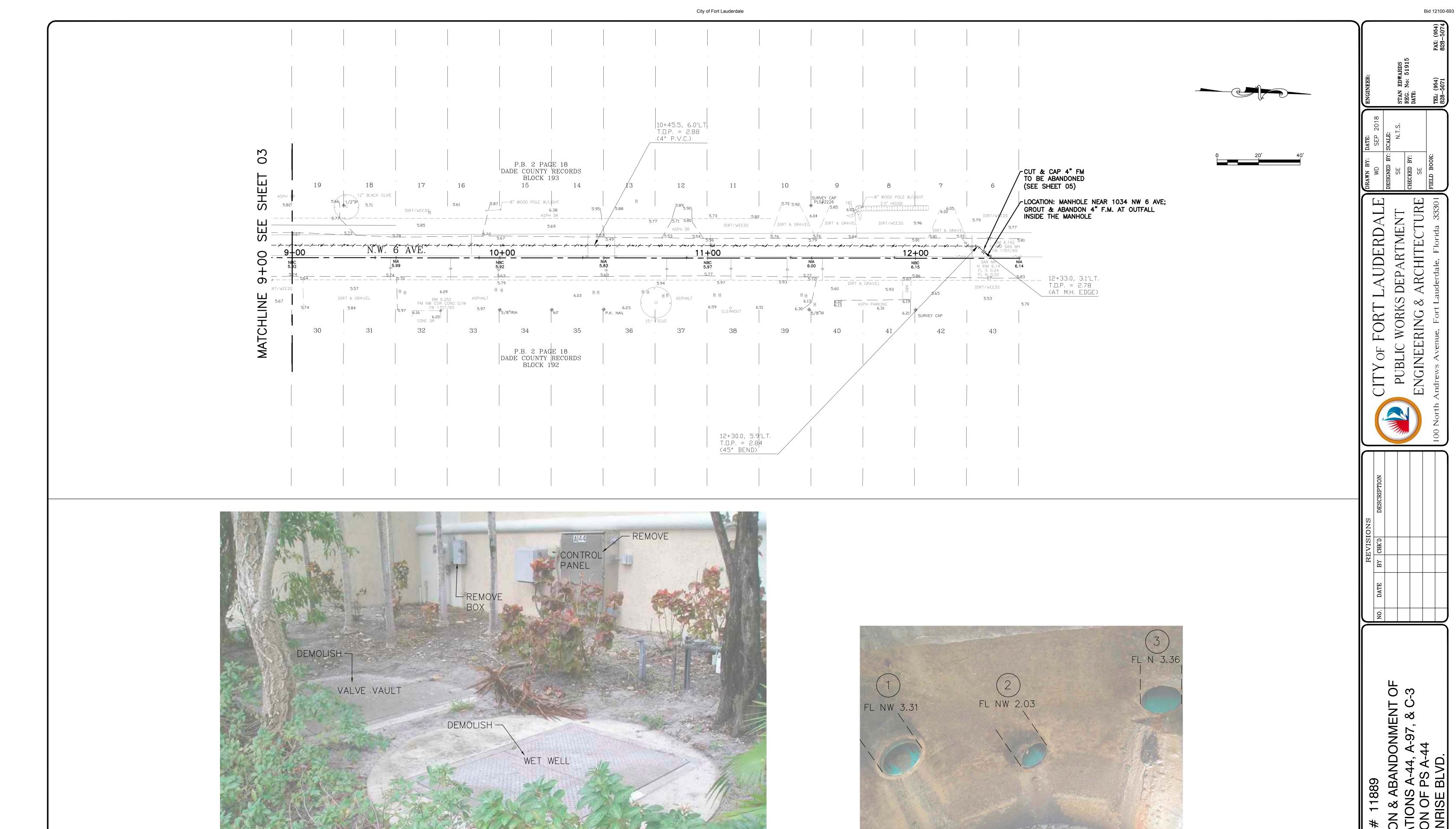
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5+00

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7+00



INSIDE WETWELL (N. WALL ELEVATION)
(TO SHOW THE 3 INCOMING BUILDING SEWER LINES)
(AS BUILT)

STATION A-44

PUMP STATION A-44 DEMOLITION & SEWER LATERAL

CAD FILE: 11889-003-PLAN

WS-06-15 Exhibit 3

11889-005-DETL

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PUMP STATION A-44 DEMOLITION DETAILS

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W. BROWARD BLVD.

LOCATION MAP

SEWAGE COLLECTION E WATER DISTRIBUTION

SYSTEMS

2912 WILTON DRIVE

WILLIAMS, HATFIELD & STONER, IN

PARCEL ONE

TURNKEY HOUSING for C.R.C. DEVELOPMENT CORN

DE-2322

FT LAUDERDALE

PRELIMINAL

- Carrier Grand Mar

Coordinate all work in advance with the Building Manager for the Town homes.

Electrical Service 1. Disconnect, remove and abandon the electrical service to the pump station. Located in the Townhouses electrical room. Coordinate with the

Water Service

1. Excavate, cut, cap, and abandon the water service at the 6" main. The main is located near the sidewalk at the townhomes entrance on SW 18 Ave. Coordinate with City water locator. Remove water meter and backflow preventer and return to Utilities Operations.

Abandon metal dry well

- 1. Remove all mechanical equipment within the dry well, including pumps, piping and valves.
- 2. Remove all electrical equipment, including conduits and wiring, lights, receptacles, fans, blowers, control panel.
- 3. Return selected salvaged equipment to City CMS (4250 NW 10 Ave). Properly dispose of all remaining equipment.
- 4. Cut the discharge forcemain and suction pipes flush with wall of drywell. Plug openings with hydraulic cement mortar.
- 5. Core- drill six (6) eight (8)" holes in bottom of the drywell.
- 6. Excavate, cut, remove and dispose top section (chimney) of drywell, approx. 4' below ground.
- 7. Backfill (clean fill, compacted layers) up to ground level and abandon remaining structure in place.
- 8. Abandon 4" DIP forcemain near intersection of entrance driveway and SW 18 Ave. Close plug valve, remove valve box, and abandon valve below grade. Cut and cap main. Restore pavement.

Abandon concrete wet well

- 1. Pump down, remove and dispose of all sewage, and remove and dispose of all pumps, sensors, cables, piping, misc. metalwork, etc.
- 2. Cut and grout piping close to walls.
- 3. Excavate, expose, and remove top 3' of wet well, including cone and top slab section.
- 4. Core-drill six(6) eight (8") holes in bottom slab.
- 5. Backfill (clean fill, compacted layers) up to ground level, and abandon remaining structure in place.

Silt fence

1. Provide silt fence around demo site.

- 1. Restore site, including landscaping, concrete sidewalk, driveway, parking lot, chain-link fence, site grading, sod, sprinklers, pavement markings. Existing landscape is not shown on drawings. Restore site to equal or better condition.
- 2. Concrete side walk restoration shall be 6" thick, minimum 40 L.F.
- 3. Driveway restoration shall be 1 ½" asphalt over 10" compacted limerock base. Sawcut and provide straight edges, and neat finished appearance.
- 4. Parking lot restoration shall be 1 ½" asphalt over 8" compacted limerock base. Sawcut and provide straight edges, and neat finished appearance.

1. Adjacent parking lot; use no more than 3 parking spaces opposite the pump station. Coordinate with the Bldg. Manager.

1. Contractor to properly dispose of all demolished items.

SUBMIT MOT AND WORK STAGING AREA FOR REVIEW

Coordination

Coordinate all work with any onsite contractors for the CFL Housing Authority.

COORDINATE ALL WORK WITH THE ONSITE CFL HOUSING AUTHORITY BUILDING MANAGER.

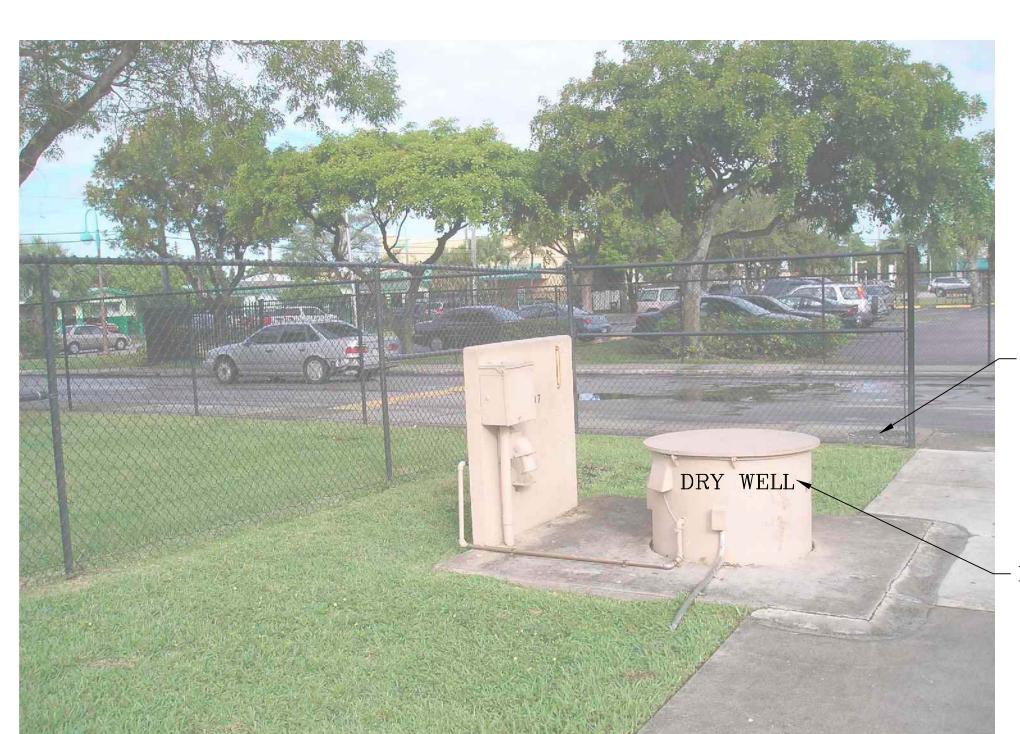
Environmental

- 1. Asbestos testing was negative.
- 2. Lead paint was found at entry hatch, pipe, and pump. see SGF Environmental Consultants report (appendix specs), dated July 22, 2015 for proper
- 3. There shall be no separate payment for lead removal/abatement. it shall be included in contractor pricing.



STATION A-97

LOOKING SOUTH



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NOTE: City of Fort Lauderdale to Provide & Install Meter Bur, Meter & All Internal Fiping. (Charges to be Paid by Contractor)

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A Water

SITE PLAN

SEWER PROFILE

TO BROWARD BLVD.

NOTE 7

STATION

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Basketball

- Exist Fire Nydrort

S.W. 2NO STREET

A-97

DEMOLISH WET WELL (ACCESS MANHOLE COVER IS IN SIDEWALK)

DEMOLISH

STATION A-97 LOOKING NORTH

PUMP STATION A-97 DEMOLITION

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11889-006-PLAN DRAWING FILE NO.

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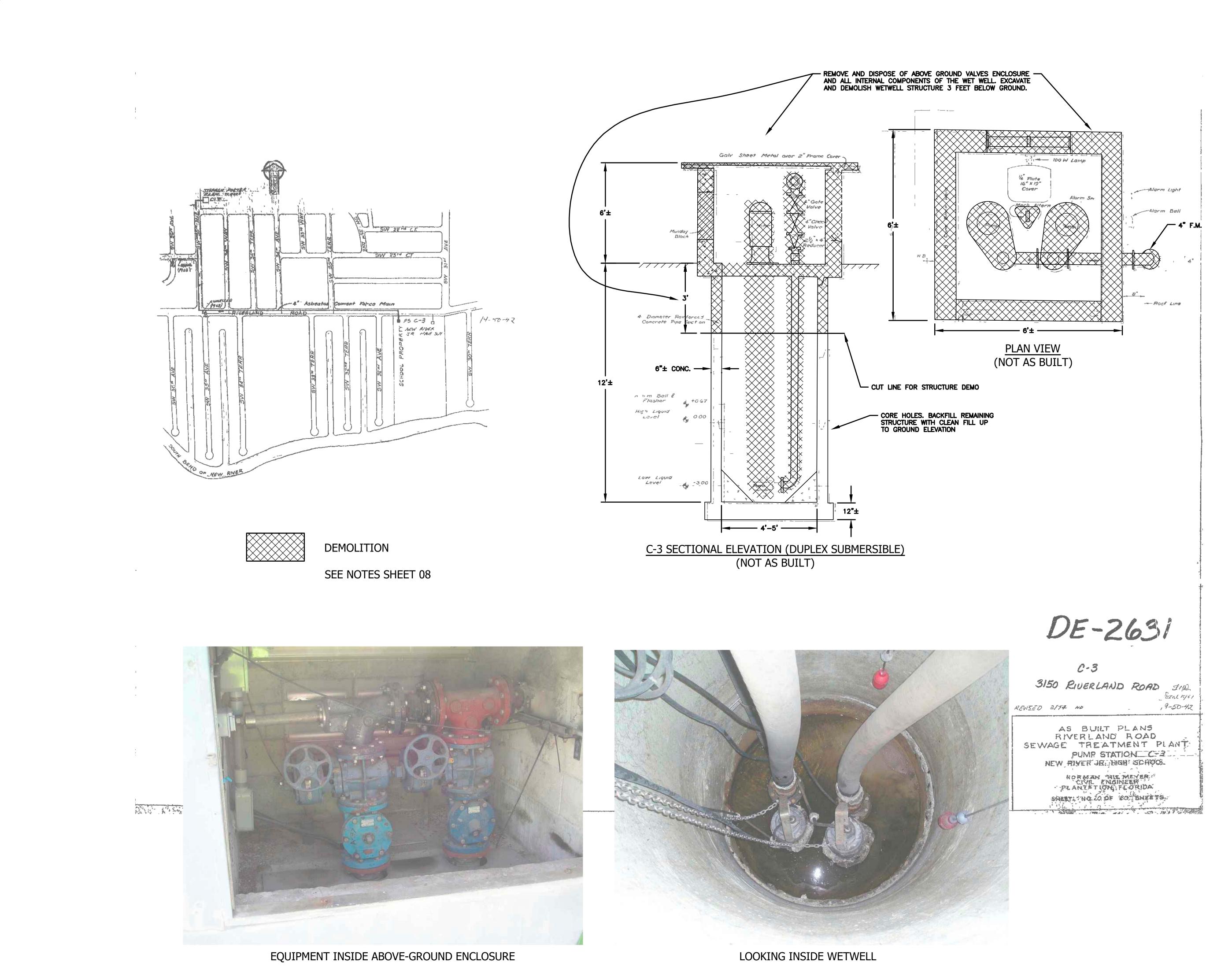
Exhibit 3
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11889-009-DETL DRAWING FILE NO. WS-06-15

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2. THE LOCATION AND ORIENTATION OF CURB RAMPS SHALL BE AS SHOWN IN THE

3. CURB RAMP RUNNING SLOPES AT UNRESTRAINED SITES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 0.02 OR FLATTER. TRANSITION SLOPES SHALL NOT BE STEEPER THAN 1:12.

WHEN ALTERING PEDESTRIAN FACILITIES WHERE EXISTING SITE DEVELOPMENT PRECLUDES THE ACCOMMODATION OF A RAMP SLOPE OF 1:12, A RUNNING SLOPE BETWEEN 1:12 AND 1:10 IS PERMITTED FOR A RISE OF 6" MAXIMUM AND A RUNNING SLOPE OF BETWEEN 1:10 AND 1:8 IS PERMITTED FOR A RISE OF 3" MAXIMUM. WHERE COMPLIANCE WITH THE REQUIREMENTS FOR A CROSS SLOPE CANNOT BE FULLY MET, THE MINIMUM FEASIBLE CROSS SLOPE SHALL BE PROVIDED.

RAMP RUNNING SLOPE IS NOT REQUIRED TO EXCEED 8' IN LENGTH, EXCEPT AT SITES WHERE THE PLANS SPECIFY A GREATER LENGTH.

4. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN THE WALK SHALL HAVE TRANSITION SLOPES TO THE RAMP; THE MAXIMUM SLOPE OF THE TRANSITIONS SHALL BE 1:12. RAMPS WITH CURB RETURNS MAY BE USED AT LOCATIONS WHERE OTHER IMPROVEMENTS PROVIDE GUIDANCE AWAY FROM THAT PORTION OF THE CURB PERPENDICULAR TO THE SIDEWALK; IMPROVEMENTS FOR GUIDANCE ARE NOT REQUIRED AT CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC.

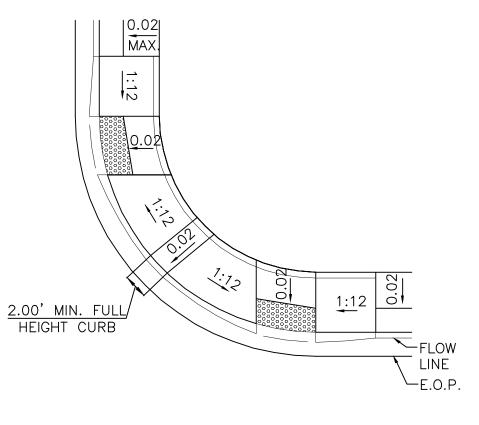
5. CURB RAMP DETECTABLE WARNING SURFACE SHALL EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF THE CURB DETECTABLE WARNING SURFACES SHALL BE VANGUARD, ARMOR TILE, OR APPROVED

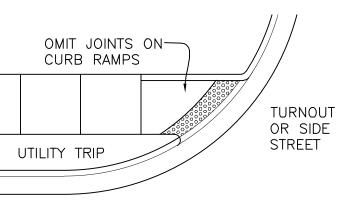
6. WHERE A RAMP IS CONSTRUCTED WITHIN EXISTING EXISTING CURB, CURB AND GUTTER, AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITIONS OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE OR WALK AROUND OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5' LONG.

7. DETECTABLE WARNING SURFACE COLOR SHALL CONTRAST WITH SURROUNDING SURFACE AS DIRECTED BY CITY ENGINEER (DEFAULT COLOR IS YELLOW).

* AMENDED FROM FDOT INDEX 304



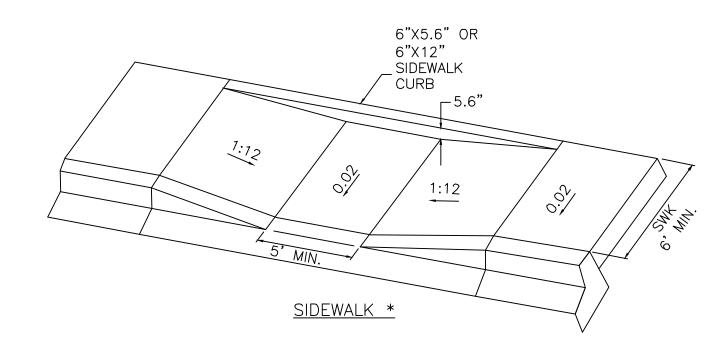


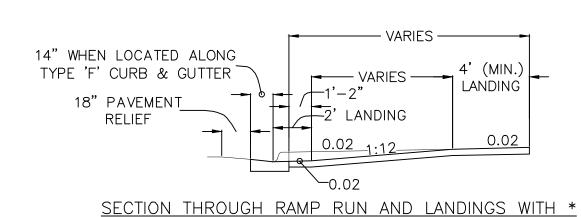


LINEAR SIDEWALK RAMPS *

* AMENDED FROM FDOT INDEX 304

TYPICAL PLACEMENT OF PUBLIC SIDEWALK CURB RAMPS AT CURBED RETURNS



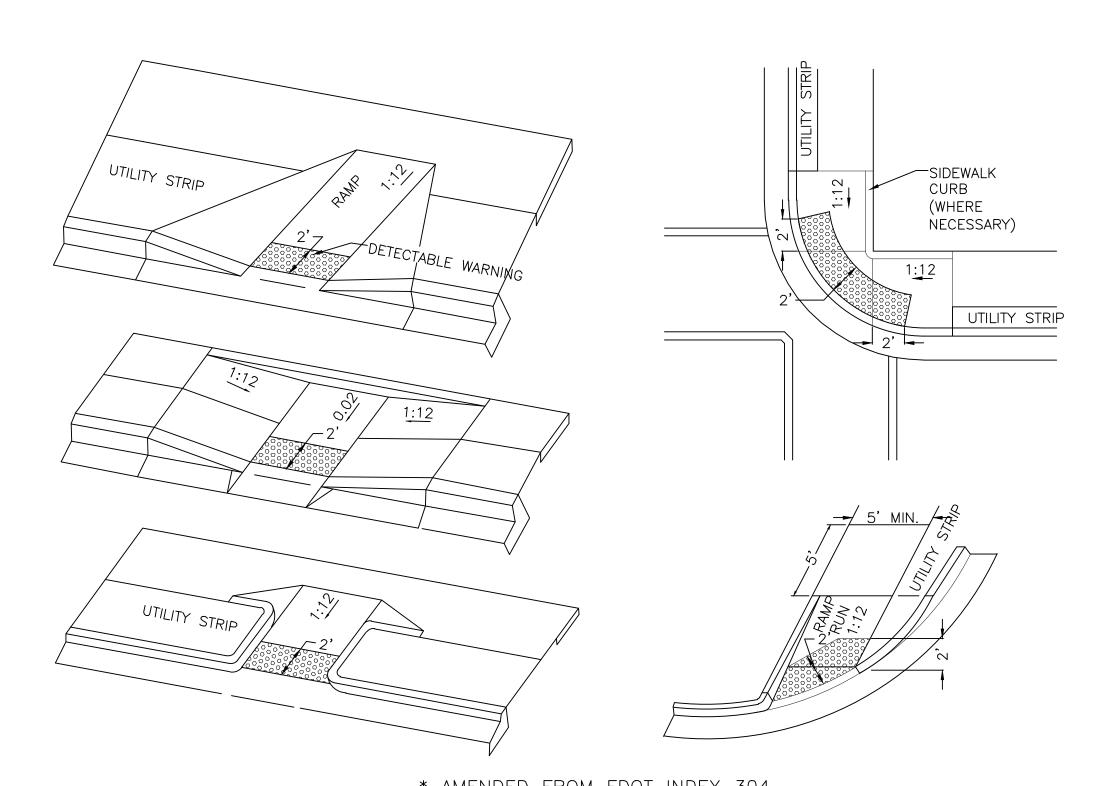


* AMENDED FROM FDOT INDEX 304

UPPER LANDING AT NORMAL SIDEWALK ELEVATION

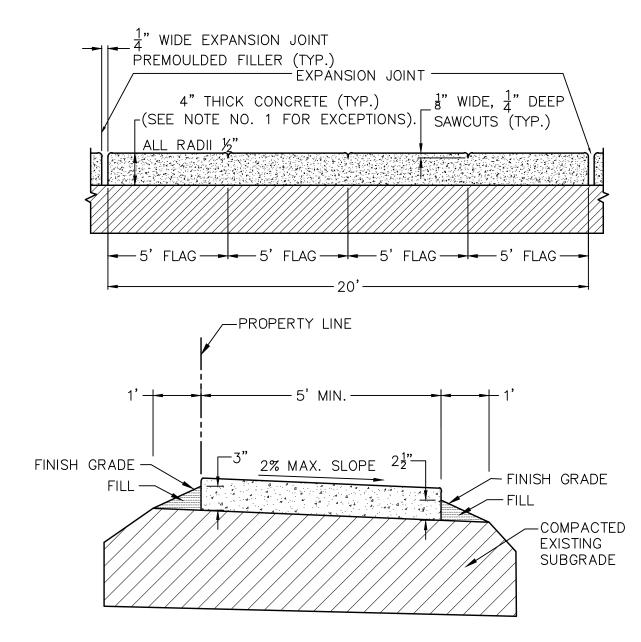
DIMENSIONAL FEATURES FOR PUBLIC SIDEWALK RAMPS WHERE RAMP AND LANDING

DEPTH ARE NOT RESTRICTED BY R/W SCALE: 1" =5'



* AMENDED FROM FDOT INDEX 304

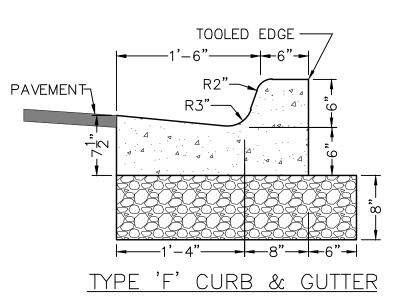
TYPICAL PLACEMENT OF DETECTABLE WARNINGS ON CURB RAMPS



NOTES:

- 1. A MINIMUM OF 6" THICK SIDEWALK IS REQUIRED ON ALL SIDEWALK APPLICATIONS.
- 2. CONCRETE STRENGTH SHALL BE 3000 P.S.I. 3. THE USE OF REINFORCEMENT WILL NOT BE PERMITTED.
- 4. SIDEWALK SLOPES SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).

SIDEWALK CONSTRUCTION



1. ALL CURBS MUST HAVE AN 8" THICK MINIMUM STABILIZED LIMEROCK BASE, COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180. 2. ALL CONCRETE STRENGTH TO BE 3000 P.S.I.

> STANDARD CURB DETAILS SCALE: 1" = 1'

ABANDONMENT (IS A-44, A-97, & C-1889 DE DE

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WS-06-15 Exhibit 3 Page 359 of 384

11889-010-DETL

DRAWING FILE NO.

1/18/2019 7:45 AM

PROVIDE STD RUBBER RING JT WITHIN 1'-6" OF

OUTSIDE FACE

OF MANHOLE

(203)

-8" CONCRETE SLAB (MONOLITHIC POUR W/

FIRST WALL SECTION).

RINGS CONCENTRIC CONE EXTERNAL JOINT WRAP -RAM-NEK-#4 @ 12" E.W. OR EQUIVALENT_ WIRE MESH (ASTM SPEC 20) BRICK RUBBLE BEDDED AND COVERED WITH 22 3/4" GROUT-NOTES: 1. PRECAST CONCRETE TYPE II 4000 P.S.I. 2. "RAM-NEK" OR EQUAL AT ALL RISER JOINTS (1/2" THICK WITH THE MACHINED COVER SURFACES WIDTH AT LEAST 1/2 THE WALL THICKNESS) 3. ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING 24 3/4" 4. FLOW CHANNELS SHALL BE CONSTRUCTED TO DIRECT INFLUENT INTO 23" 5. FLOW STREAM. (SEE DETAIL) 6. LIFT HOLES ARE PERMITTED. 7. ALL PIPE HOLES SHALL BE PRECAST OR CORE DRILLED. A. FOR PVC PIPE ENTERING MANHOLE WITH PRECAST HOLES USE THE APPROVED NON-ASBESTOS PVC-MANHOLE ADAPTER OR PRECAST

NOTES: 1. MATERIAL: FRAME AND COVER AS SPECIFIED. 2. ADDITIONAL GRADE RINGS MAY BE USED TO ELEVATE EXISTING MANHOLE FRAMES TO RESURFACED GRADE (MAX. 4" HEIGHT).

20 5/8"

24 1/2"

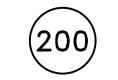
FRAME

36"

3. ALL DIMENSIONS ARE NOMINAL.

4. OPTIONAL: HINGED FRAME AND COVER AS SPECIFIED.

MANHOLE FRAME & COVER-PAVED AREAS





12. MANHOLE SHALL BE SET PLUMB TO LINE AND GRADE.

OR THE APPROVED PVC-MANHOLE ADAPTER.

FLEXIBLE MANHOLE SLEEVE FOR THE APPROPRIATE PIPE DIAMETER AND DIMENSION RATIO. THE ADAPTER SHALL NOT EXTEND MORE THAN

B. CONNECTION TO A MANHOLE WITH A CORE DRILLED HOLE SHALL BE MADE USING A 5' MIN. DUCTILE IRON PIPE SECTION (EPOXY LINED)

PERMITTED FOR MANHOLES WITH 3 OR MORE INVERTS AND MANHOLES WITH A CHANGE IN FLOW DIRECTION OF MORE THAN 45 DEGREES.

8. INSIDE DROPS SHALL NOT BE DESIGNED TO EXCEED 1.80 FEET AND NOT CONSTRUCTED TO EXCEED 2.0 FEET. MAX. 6" INSIDE DROP IS

9. MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH ASTM C-478,

10. MINIMUM 5 FEET IS REQUIRED BETWEEN OUTSIDE OF MANHOLE AND

11. MANHOLES TO BE PAINTED INSIDE AND OUTSIDE WITH 2 COATS OF AN APPROVED PROTECTIVE COATING. (ONE COAT RED, ONE COAT BLACK)

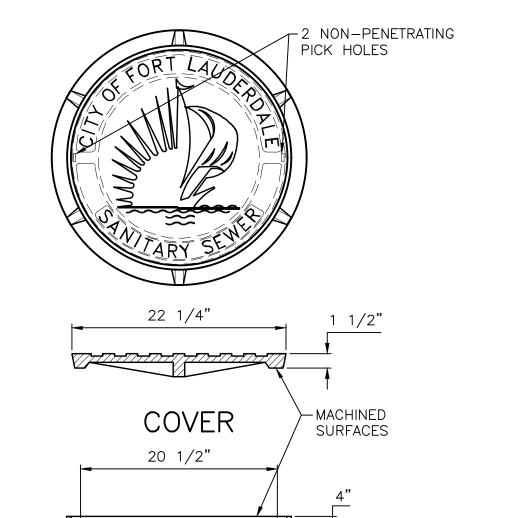
1" INTO THE MANHOLE. DOUBLE BANDING IS REQUIRED FOR FLEXIBLE



MIN. 8-10 MILS D.F.T. PER COAT.

MANHOLE SLEEVE.

LATEST STANDARD.

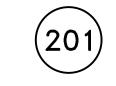


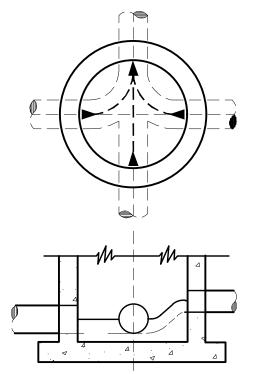
22 1/2" 26 1/2" FRAME

NOTES:

- . MATERIAL: FRAME AND COVER AS SPECIFIED. 2. ADDITIONAL GRADE RINGS MAY BE USED TO ELEVATE EXISTING
- MANHOLE FRAMES TO RESURFACED GRADE (MAX. 4" HEIGHT). 3. ALL DIMENSIONS ARE NOMINAL. 4. OPTIONAL: HINGED FRAME AND COVER AS SPECIFIED.

MANHOLE FRAME & COVER-UNPAVED AREAS





NOTES:

- 1. ALL INVERT CHANNELS ARE TO BE CONSTRUCTED FOR SMOOTH FLOW WITHOUT OBSTRUCTION.
- 2. PROPERLY SHAPED SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS TO PROVIDE FOR SMOOTH FLOWS.
- 3. SERVICE LATERALS SHALL NOT ENTER MANHOLES UNLESS SPECIFIED ON PLANS AND THEN MUST BE TREATED AS MAINS. (ELEVATIONS SHOWN, PRECAST HOLE, FLOW CHANNEL)
- 4. BRICK RUBBLE PERMITTED AS FLOW CHANNEL BUILDUP. 5. SIDEWALLS OF FLOW CHANNEL SHALL BE AT LEAST HALF OF PIPE HEIGHT AT
- ALL POINTS. 6. NO INSIDE DROP LARGER THAN 6" SHALL BE ALLOWED WITH 3 OR 4 INVERTS AND MANHOLES WITH A CHANGE OF DIRECTION OF FLOW OF MORE THAN 45 DEGREES.

INVERT FLOW CHANNELS



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UDERDALE

WORK

NGINEERING

Bid 12100-693

TOTAL: CAD FILE: 11889-011-DETL DRAWING FILE NO. WS-06-15

SHEET NO.

1/18/2019 7:45 AM

SSWR03

Exhibit 3

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CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT

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

PRIME CONTRACTOR IDENTIFICATION FORM

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

Name of Firm:	
Address of Firm:	
Telephone Number:	
Name of Person Completing Form:	
Title:	
Signature:	
Date:	
City Project Number:	
City Project Description:	
Please check the item(s) which prop	perly identify the status of your firm:
☐ Our firm is not a MBE or WBE	
Our firm is a MBE, as at least economically disadvantaged	51 percent is owned and operated by one or more socially and individuals.
☐ American Indian ☐ Asi	an 🗌 Black 🗎 Hispanic
☐ Our firm is a WBE, as at least	51 percent is owned and operated by one or more women.
☐ American Indian ☐ Asi	an

MBE/WBE CONTRACTOR INFORMATION

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

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

CONTRACTOR CHECKLIST

List Previous City of Fort Lauderdale Contracts
<u>5</u>
Number of Employees in your firmPercent (%) WomenPercent (%) Minorities
Job Classifications of Women and Minorities
Use of minority and/or women subcontractors on past projects.
Nature of the work subcontracted to minority and/or women-owned firms.
How are subcontractors notified of available opportunities with your firm?

Ш	Anticipated amount to be subcontracted on this project.
	<u>5</u>
	Anticipated amount to be subcontracted to minority and/or women-owned businesses on this project.
	<u>5</u>

QUESTIONNAIRE SHEET

PLEASE PRINT OR TYPE:	
Firm Name:	
President	
Business Address:	
<u>5</u> 6	
Telephone:	Fax:
E-Mail Address:	
What was the last project of this nature which you completed? Include the year, d contract value.	escription, and
<u>5</u>	
The following are named as three corporations and representatives of those corpor have performed work similar to that required by this contract, and which the City mareferences (include addresses, telephone numbers and e-mail addresses). Incluyear, description, and contract value.	nay contact as you
How many years has your organization been in business?	
Have you ever failed to complete work awarded to you; if so, where and why?	
The name of the qualifying agent for the firm and his position is:	
Certificate of Competency Number of Qualifying Agent:	
Effective Date: Expiration Date:	
Licensed in: Engineering Contractor's License # (County/State)	:

Expiration Date:	

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

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

QUESTIONNAIRE SHEET

Have you personally inspected the proposed work and have you a complete plan for its performance?
5 6
Will you sublet any part of this work? If so, list the portions or specialties of the work that you will.
What equipment do you own that is available for the work?
What equipment will you purchase for the proposed work?
What equipment will you rent for the proposed work?

<u>31</u>

<u>4</u>

LOCAL BUSINESS PRICE PREFERENCE

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

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

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

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

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

THE COMPLETE LOCAL BUSINESS PREFERENCE ORDINANCE MAY BE FOUND ON THE CITY'S WEB SITE AT THE FOLLOWING LINK: https://librarv.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?

nttps://library.municode.com/fi/fort_lauderdale/codes/code_of_ordinances?

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

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

LOCAL BUSINESS PRICE PREFERENCE CERTIFICATION STATEMENT

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

(1)	Business Name	is a Class A Business as defined in City of Ordinance No. C-17-26, Sec.2-186. A copy of Lauderdale current year Business Tax Receipt a of full-time employees and evidence of their a provided within 10 calendar days of a formal requirement.	of the City of Fort and a complete list ddresses shall be		
(2)	Business Name	is a Class B Business as defined in the City Ordinance No. C-17-26, Sec.2-186. A copy of Receipt <u>or</u> a complete list of full-time employed their addresses shall be provided within 10 c formal request by the City.	the Business Tax es and evidence of		
(3)	Business Name	is a Class C Business as defined in the City Ordinance No. C-17-26, Sec.2-186. A copy of the Business Tax Receipt shall be provided within 1 a formal request by the City.	ne Broward County		
		requests a Conditional Class A classification as			
(4)	Business Name		derdale Ordinance No. C-17-26, Sec.2-186. Written of intent shall be provided within 10 calendar days of a st by the City.		
(5)		requests a Conditional Class B classification as of Fort Lauderdale Ordinance No. C-17-26, S			
(5)	Business Name	certification of intent shall be provided within 10 formal request by the City.			
(6)	Business Name	is considered a Class D Business as defined Lauderdale Ordinance No. C-17-26, Sec.2-186 a for Local Preference consideration.			
BIDDER'S COMPANY:					
AUTHORIZED					
COMPANY PERSON:	NAME	SIGNATURE	DATE		
			1		

TRENCH SAFETY

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

Trench Safety Measure	Units of	Unit	Unit	Extended			
(Description)	Measure	(Quantity)	Cost	Cost			
	(LF/SF)						
A.			\$	\$			
5							
B.			\$	\$			
C.			\$	\$			
D.			\$	\$			
			Total: \$				
The bidder certifies that all	trench excav	ation done within	his control in exce	ess of five feet (5') in			
depth shall be in accordant	ce with the Oc	cupational Safety	and Health Admin	istration's excavation			
safety standards, C.F.R. s.	1926.650 Sub <mark>լ</mark>	part P., and the Flo	orida Trench Safety	Act, Florida Statutes			
553.60-553.64.							
Egilure to complete the char	o may recult i	n the hid being dec	darad nan raanana	ivo			
Failure to complete the above	ve may result i	ii tile bid bellig det	dared non-respons	ive.			
DATE							
DATE:							
		(SIGNATU	RE)				
CTATE OF	COLINITY	OF.					
STATE OF:	COUNTY	OF: [
PERSONALLY APPEARED BEFORE ME, the undersigned authority,							
FERSONALLI AFFLANLL	BEI OILE IVIL	, the undersigned (authority,				
(Name of Individual Signing)							
(rtaine er marriadar eigimig)							
	who, afte	er first being duly s	worn by me,				
	affixed I	nis/her signature	in the space prov	vided above on this			
affixed his/her signature in the space provided above on this							
day of		, 20					
				NOTARY PUBLIC			
				NOTARTIODER			
	My Com	mission Expires:					

NON-COLLUSION STATEMENT:

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

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

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

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

- 3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more).
- 3.4. Immediate family members (spouse, parents and children) are also prohibited from contracting with the City subject to the same general rules.

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

<u>NAME</u>		<u>RELATIONSHIPS</u>
-		
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	L	
	г	

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

3

CAM #19-0322 Exhibit 3 Page 371 of 384

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

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

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

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

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

The Contract shall include provisions for the following:

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

Authorized Signature	Print Name and Title
Date	

CONTRACT PAYMENT METHOD

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

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

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

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

□Master Card	
□Visa Card	
Company Name: Signature:	
Print Name Title:	

CONSTRUCTION BID CERTIFICATION

<u>Please Note:</u> All fields below must be com authority from the department of state, in a					orporation, you may be	required to obtain a ce	ertificate of
Company: (Legal Registration)							
Address:							
City:		State:	Zip:				
Telephone No. FAX No.	E	Email:					
Does your firm qualify for MBE or WBE stat	us: MBE □ WBE □]					
If a corporation, state the name of the Pres business under the trade name.	ident, Secretary and R	esident Agent. If a parti	nership, state the nar	mes of all partners. If a	trade name, state the	names of the individua	als who do
Name	Title		Name		Title		
Name	Title		Name		Name		
ADDENDUM ACKNOWLEDGEMENT - Bidde Addendum No. Date Received	acknowledges that th	e following addenda ha	Addendum No.	d are included in the b	Addendum No.	Date Received]
VARIANCES: If you take exception or have in the space provided below all variances submitted unless such is listed and contai contained in the below space, it is hereby in response electronically through BIDSYNC y	contained on other pa ned in the space prov nplied that your respor	nges within your bid. Actived below. The City dense is in full compliance	dditional pages may oes not, by virtue of with this competitive	be attached if necessa submitting a variance	ary. No variances will , necessarily accept a	be deemed to be part any variances. If no sta	t of the bid atement is
The below signatory affirms that he has or very below signatory agrees to furnish all labor, and contract documents at the unit prices in with any other bidder or parties to this bid signatory also hereby agrees, by virtue of exemplary damages, expenses, or lost profit presentations, or award proceedings exceed protest ordinance contained in this competition.	tools, material, equipm dicated if awarded a c whatsoever. Furtherm submitting or attempt ts arising out of this co d the amount of Five H	ent and supplies, and to ontract. The below sign ore, the undersigned g ing to submit a bid, that mpetitive solicitation pro-	o sustain all the expe atory has not divulge uarantees the truth a t in no event shall th ocess, including but n	nse incurred in doing t d to, discussed, or con and accuracy of all sta e City's liability for bo ot limited to public adve	he work set forth in str npared this bid with ot tements and answers dder's direct, indirect, i ertisement, bid confere	rict accordance with the her bidders, and has no contained in this bid. ncidental, consequential ences, site visits, evalua	e bid plans ot colluded The below I, special or ations, oral
Name (printed)	_	Signature					

Date:

Date:

PLEASE WRITE CLEARLY

DATE:

11/28/2018

TIME: 1:30 p.m.

BID NO .:

12100-693

OPENING DATE:

12/18/2018

ITB/RFQ TITLE: Demolition & Abandonment of Pump Stations A-44, A-97 & C-3

PROCUREMENT CONTACT: Maureen Lewis

PROJECT MANAGER: Stan Edwards

PLEASE WRITE CLEARLY

#	NAME	COMPANY	PHONE	EMAIL
1	Stan Edwards	City of Ft. Lauderdale	9/828-5071	sedwards@fortlauderdale.gov
2	Maureen Lewis	City of Ft. Lauderdale	9/828-5239	maureenl@fortlauderdale.gov
3	Anthony Collins	City of Ft. Lauderdale	9/828-3453	acollins@fortlauderdale.gov
4	Jorge Holguin	City of Ft. Lauderdale	9/828-6755	jholguin@fortlauderdale.gov
5	RICKY DIAZ	R=G ENGINEERING	305/303-5760	diazricky 30 e smail.com
6	Alec Greenberg	8G Group	561-789-09	5 alec @ 69 demolition.com
		ETEVEE AN		

PLEASE WRITE CLEARLY

#	# NAME COMPANY PHONE EMAIL				
#	NAME	CONFANT	PHONE	LIVIAIL	
7	ERIC STEAL	GENSTONE	305-495 1436	genstonegezegnail.com	
8	Barrier	Intercounty	954 -972	msweenege	
	Mike Sweener	ENGINEERING	9800 XZ12	intercounty ensincernis, com	
9	Steven FoulAQI	8 Agao, So	954 - 82 130	1847 N. Universit/Dr. 20-811 (SPR); FL 32-91	
10	Homas McCanell	Demcox	954 922-8697		
11	RickAlbe	Force Ent Inc.	561 430-7298	palloe@forceenterprises. Net	
12		©ity of Ht. Laudardale	786	Sedwards Oforhanderone cov	
	Wichael Mora	Chin Diesel	295-159L	Mike chindresel com	
13	Michael Moran IVANLARA	Luna Con Construction	186-293 0035	Mika Chin diesel , com Flava CLuna con corp-com	
14	LITE APT DON'T COMPLICENCE		PROJECT MAN	REER, Stan Edwards	
	OUT TE TO SEE STORE & VO. HOUSE	ant of Pump Stations. A	1 THE WAS S C. 12		
15			SEKRIO DVLE	12/18/2018	
	3 1 3 18		TARE 1138 Park		
		SCEWSE ME			



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

BID NO. 12100-693 DEMOLITION AND ABANDONMENT OF PUMP STATIONS A-44, A-97 AND C-3 (P11889)

ADDENDUM NO. 2

ISSUED: December 6, 2018

This Addendum is being issued to provide the following information and in response to Question #2. It is hereby made a part of the Plans and Specifications and shall be included with all contract documents.

Acknowledge receipt of this Addendum by inserting its number and date on the CITB Construction Bid Certification Page.

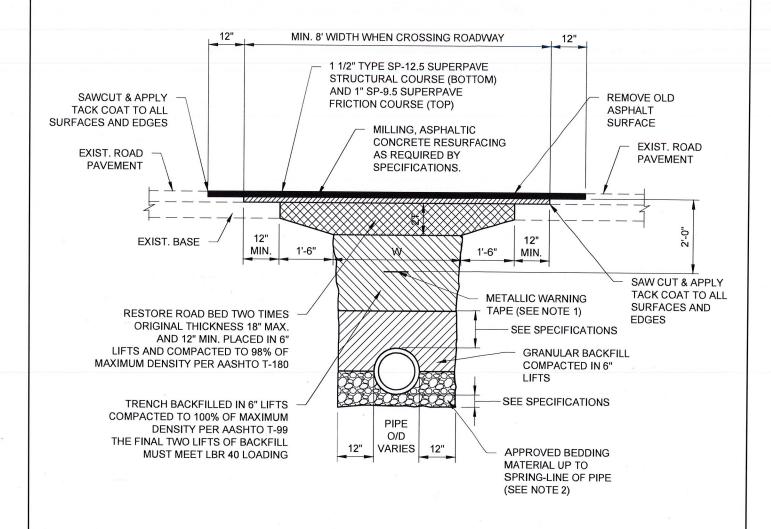
1. ADDED: Road Restoration Detail (attached).

All other terms, conditions, and specifications remain unchanged.

Procurement Specialist II		
Company Name:	(please print)	
Bidder's Signature:		
Date:		

Maureen Lewis MOBA. ORROS

ROAD001-TRENCH Thursday, August 24, 2017

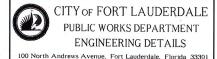


NOTES:

- METALLIC WARNING TAPES SHALL BE INSTALLED 24" BELOW FINISH GRADE ABOVE MAIN. (SEE SPECIFICATION 2320 SECTION 3.6 FOR MARKING TYPE)
- UNLESS OTHERWISE SPECIFIED SELECTED MATERIAL SHALL BE FREE OF STONES LARGER THAN 3/8" DIA.
- 3. REPLACE ALL LANE MARKINGS AND REFLECTIVE MARKERS.

T=6" PARKING T=8" RESIDENTIAL STREETS T=10" MAJOR STREETS (4 LANE) T=12" MAJOR STREETS (6 LANE)

2T=18" MAX. 12" MIN.



TYPICAL TRENCH AND PAVEMENT
RESTORATION FOR TRANSVERSE PIPE CROSSING
SHEET 1

CAM #19-03227/03/11

DETAIL NO.

ROAD

001

p. 378

ADDENDUM 2

(40/2040 7:4F ANA

Exhibit 3 Page 378 of 384



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

BID NO. 12100-693 DEMOLITION AND ABANDONMENT OF PUMP STATIONS A-44, A-97 AND C-3 (P11889)

ADDENDUM NO. 4

ISSUED: December 18, 2018

This Addendum is being issued to provide the following information. It is hereby made a part of the Plans and Specifications and shall be included with all contract documents.

Acknowledge receipt of this Addendum by inserting its number and date on the CITB Construction Bid Certification Page.

1. REPLACE: Pages 5 - 6 of Technical Specifications Section

01025, Measurement and Payments, with the attached Addendum 4. (This is related to Pump

Station C-3 only);

2. REPLACE: Page 3 of the Special Conditions, Section 9, Bid

Allowance, with the attached Addendum 4.
Allowances have been updated to include
Background Screening. (This is related to

Pump Station C-3 only).

Updates are highlighted in yellow.

Maureen Revis. MOBA, ORROB

All other terms, conditions, and specifications remain unchanged.

Procurement Specialist II	
Company Name:	(please print)
Bidder's Signature:	,
Date:	

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within the construction right-of-way obtained by the OWNER or the street right-of-way.

12. The CONTRACTOR shall be responsible for all damage to private property where work related activities have occurred without proper easement or authorization. The CITY may withhold payment to the CONTRACTOR pending resolution of any claims by private owners.

B. General:

- 1. No material price increases will be allowed, including gasoline, diesel, asphalt cement, or other materials.
- C. Payment for Lump Sum Work covers all Work specified or shown for the following items:

1. LUMP SUM

ITEM	DESCRIPTION		
1-a) Mobilization and Demobilization (not to exceed 8% of contract sum)	Payment for mobilization and demobilization will be made at the lump sum price named in the Bid Schedule. Mobilization includes, but is not limited to, bonds, videos, insurance, site cleanup, sanitary facilities, labor associated with permit acquisition, contractors staging area, project signs, (one per each site) testing, project coordination with City and other stakeholders, fencing and demobilization. Partial payments for mobilization and demobilization will be made as follows: • 50% at the beginning of the work		
	 50% at 100% complete Background Screening to include all contractor's overhead for successfully obtaining background screening for all its personnel who are to be permitted access to school grounds when students are present. 1-a Mobilization and Demobilization 		
1-b) Maintenance of Traffic (not to exceed 5% of contract sum)	Payment for maintenance of traffic will be made at the lump sum price named in the Bid Schedule. Payment for maintenance of traffic will be made in equal monthly amounts for the project duration stated in the Contract. The lump sum price for this item shall include full compensation for all maintenance of traffic, including but not limited to all labor, equipment, and material required to keep roadways and property accesses in service during		

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	construction activities as specified in the Contract Documents and as required by FDOT, County, City, or local authorities. The CONTRACTOR's lump sum price shall include full compensation for preparation of maintenance of traffic plans (MOTs), all personnel
ITEM	DESCRIPTION
1-b) cont'd	required to direct and maintain traffic (including local police as required), and all signs, cones, barricades, and temporary traffic lights. Additionally, this item shall include all costs associated with reduced or changed hours due to construction in school zones and all costs associated with the coordination of all other work underway at the same time (city, county, state) within the project limits.
	1-b Maintenance of Traffic LS
1-c) Permit Fees & FPL Electrical Service Allowance	Payment for permit fees will be based upon the actual permit fees required by the CONTRACTOR from the various agencies having jurisdiction for construction of the project, in accordance with the Contract Documents.
	Payment for electrical service modifications, excluding modifications specifically shown on the drawings, will be based on the actual costs incurred by the contractor to modify the electrical service as required by Florida Power & Light.
	The allowance amount shown on the contract is an estimate for the project and is a cost pass through item and no markups will be added to this item. The CONTRACTOR shall submit documentation with pay request verifying actual cost. Only permit fees and electrical service modification costs substantiated by the CONTRACTOR and approved by the ENGINEER will be paid as part of this bid item. Any balance in this item at the end of the project shall be credited back to the OWNER.
	1-c Permit Fees & FPL Electrical Service Allowance
1 – d) BackGround Screening	Payment for BackGround Screening will be based upon the actual cost paid to the agency for acquiring successful BackGround Screening. The Allowance Amount (\$5000) shown in the contract is an estimate and is a cost pass through item and no markup will be added to this item. Contractor shall submit documentation with pay request verifying actual cost.

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The contractor is required to comply with all requirements
of Sections 1012.32 and 1012.465, Florida Statutes, and
all its personnel who are to be permitted access to school
grounds when students are present will successfully
complete the background screening required by the
referenced statutes and meet the standards established by
the statutes.

08. SPECIFIC EXPERIENCE REQUIRED

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

The contractor shall have at least five (5) years previous construction experience in sewer collection systems infrastructure, in the State of Florida. Bidder shall submit proof of construction experience of a minimum of three (3) projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address.

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

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

09. BID ALLOWANCE

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

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

Allowances	\$
Permit fees & FPL Electrical Service allowance	12,000
Landscape allowance	5,000
Additional Work	25,000
Background Screening Allowance	<mark>5,0000</mark>
TOTAL	<mark>47,000</mark>
	42,000

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

- **10. INSURANCE REQUIREMENTS** (See Article 10, Bonds and Insurance, of the Contract for details)
 - 10.1 General Information

Question and Answers for Bid #12100-693 - Demolition and Abandonment of Pump Stations A-44, A-97 and C-3 (P11889)

Overall Bid Questions

Question 1

is there a cost estimate/budget available? (Submitted: Nov 12, 2018 9:50:40 AM EST)

Answer

- Approximately \$250,000. (Answered: Nov 13, 2018 3:46:00 PM EST)

Question 2

For A·44 Station, located at the SW corner of Sunrise Boulevard and NW 6th Avenue. When we perform the installation of (3) sanitary sewer laterals and perform the Restoration of trench and pavement, is milling and resurfacing required and if so how long (20', 30', 40', 50' length is required to be milled and resurfaced, and what width is required as well, (1) lane or (2) lanes milled & resurfaced?? (Submitted: Nov 30, 2018 2:51:48 PM EST)

Answer

- Milling and resurfacing for sanitary sewer lateral construction shall be full lane width for a total distance of approx. 50 feet. See Addendum 2 for Trench & Roadway Restoration Detail, Road 001. (Answered: Dec 6, 2018 4:05:31 PM EST)

Question 3

Qualification statement mention that besides

Besides an Engineering Contractors Licensed with Broward County does a State Licensed General Contractor suffice to perform work? (Submitted: Dec 12, 2018 2:36:27 PM EST)

Answer

- A State Licensed General Contractor will not suffice to perform work in the Cityâ€Â™s Right of Way. The following are Standard Permit Review Comments associated with work in the Cityâ€Â™s Right of Way and for Engineering Permit approval.:

â€ÂœAll sanitary sewer work in the public right-of-way, private thoroughfares or utility easement must be performed by a duly licensed and certified underground utility and excavation contractor or engineering contractor. Asphalt pavement restoration shall be by a licensed engineering contractor or paving contractor in Broward County, Florida.â€Â (Answered: Dec 18, 2018 12:19:37 PM EST)

Question 4

Is a bid bond required for this contract? (Submitted: Dec 12, 2018 6:21:56 PM EST)

Answer

- Yes

Bidders are strongly encouraged to read the solicitation in its entirety to familiarize themselves with the requirements for this bid. Failure to do so may find them non-responsive. (Answered: Dec 18, 2018 12:24:16 PM EST)