



CONTRACT DOCUMENTS

AND

TECHNICAL SPECIFICATIONS

CITY CIP PROJECT NO. 89-30-02

BID #FY 2011-2012-006
PUMP STATIONS REHABILITATION

PREPARED BY:
CITY OF HALLANDALE BEACH
DEPARTMENTS OF PUBLIC WORKS AND UTILITIES &
ENGINEERING
GENERAL SERVICES/PURCHASING DEPARTMENT

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NOTICES TO PROSPECTIVE BIDDERS

**LOCAL VENDOR PREFERENCE MAY BE APPLICABLE TO THIS BID PROJECT
SEE PAGES 22-23 ITEM # [28].**

SMALL BUSINESS ENTERPRISE (SBE) BUSINESS UTILIZATION PLAN

A business that is currently certified under the Broward County Small Business Enterprise program, pursuant to Chapter 20, Article XIV, Code of Metropolitan Broward County. The City encourages all who respond to this bid to utilize or make good faith efforts to utilize SBE Firms that are certified under the Broward County SBE program.

**MANDATORY PRE-BID MEETING IS SCHEDULED FOR THURSDAY, JUNE 21, 2012
@ 10:30 A.M., AT CITY OF HALLANDALE BEACH MUNICIPAL COMPLEX, CITY
HALL, CITY COMMISSION CHAMBERS, 400 SOUTH FEDERAL HIGHWAY,
HALLANDALE BEACH, FLORIDA.**

**PLEASE REVIEW THE BID AND BRING YOUR QUESTIONS TO THE MANDATORY
CONFERENCE SINCE IT WILL BE THE ONLY OPPORTUNITY TO ASK QUESTIONS.**

ATTENDANCE AT THE PRE-BID CONFERENCE IS MANDATORY.

**MANDATORY SITE VISIT WILL IMMEDIATELY FOLLOW THE MANDATORY PRE-BID
CONFERENCE MEETING.**

**IF YOU DO NOT ATTEND THE MANDATORY PRE-BID CONFERENCE AND SITE
VISIT YOUR BID SUBMISSION WILL NOT BE ACCEPTED.**

THE CITY WILL ONLY ALLOW PRIME CONTRACTOR UNDER THIS CONTRACT.

**BID RESPONSES ARE DUE: MONDAY, JULY 2, 2012 BY NO LATER THAN 11:00
A.M - BID #FY2011-2012-006: PUMP STATIONS REHABILITATION.**

BIDDERS MINIMUM QUALIFICATION REQUIREMENTS:

- **In order to be considered Firms must have five (5) years experience under
its current business name. Providing the scope of work as specified in this
bid. The information will be verified through Sunbiz at
<http://www.sunbiz.org/search.html>.**

- **Provide a letter on your company's letterhead indicating that firm providing
the proposal has a minimum of five (5) years of experience providing the
services requested in this bid. The firm responding must possess a
minimum of five (5) years experience under its current business name.
This information will be verified through Sunbiz at
<http://www.sunbiz.org/search.html>.**

- **Proposers shall provide a copy of the Florida State License issued to the business for the profession/trade, if applicable. Submit copies of license(s).**
- **Proposers shall provide a copy of evidence of Broward County License issued to the business for the profession/trade, if applicable. Submit copies of license(s).**
- **Provide five (5) references of projects of a similar size, scope and complexity to this Bid that have been completed by your company within the last five (5) years. For each project provide the name of company/owner/business for which the services were provided, contact name of individual and his or her role/title, address of the company, and telephone number. The City will call the names provided for references.**

Minimum Qualifications are intended to establish if the respondent is authorized minimally qualified to provide the services and scope solicited. Bidders shall provide proof of these minimum qualifications with the submission of Bid.

IF THE MINIMUM QUALIFICATION ABOVE IS NOT MET THE BIDDER'S SUBMITTAL WILL BE DEEMED NON-RESPONSIVE AND WILL NOT BE CONSIDERED.

CONTRACT AWARD:

This Bid consists of three (3) project parts for bidding: Project [A], Project [B], and Project [C]. The project consists of scope of work to be completed in the consecutive order of completion of Project [A] through Project [C]. Contract Award will be to the lowest responsive bidder for the total sum of all three (3) projects A - C. The sequence of construction for the project will be determined at a later date.

CONTRACT TERM:

Contract may be cancelled by the City of Hallandale Beach within thirty (30) days with a written notice. Your firm's bid submission shall be valid until such time as City Commission awards a contract as a result of this bid.

CONTRACT PRICE:

No price increase will be accepted during the initial contract period of one (1) year.

SAMPLE FORM CONTRACT:

The City's Form Contract is attached as part of this solicitation. The Vendor's submission of a Bid response without identifying variances expressly acknowledges and formally evidences the Vendor's acceptance of all terms and conditions of the form Contract. Any and all variances must be submitted in writing by the Vendor.

CONTRACT FOR EXECUTION:

Attached to this bid is the agreement that contains the terms and conditions that the awarded Contractor must be able to abide by and execute upon award of this contract. The legal terms and conditions will bind the awarded Contractor for all of the years under Contract.

CONTRACT DEDUCTIONS:

Upon the occurrence of any acts or omissions listed below, deductions may be assessed in whole or in part, against the Contractor in the amount indicated below, for each occurrence and for each day the occurrence remains uncorrected. In the event that the date of the initial occurrence cannot be established, the assessment will start from the date of discovery until the irregularity is corrected. Except for time and attendance infractions, the City's Contract Administrator shall provide the Contractor with written notice of intent to make such assessment against the infractions listed below. These deductions will be deducted against monies due or to become due to the Contractor.

Up to 1% deduction from the Monthly invoices submitted by the Contractor for the following:

1. Failure to provide resources, once committed, in a timely manner.
2. Claim of worker qualifications that are shown to be an error.

ESTIMATED BUDGET FOR THIS PROJECT IS \$[150,000.00].

RETURN COMPLETE CITY BID PACKAGE FORMS AS FOLLOWS:

- **CERTIFICATE OF COMPETENCY AND/OR STATE REGISTRATION**
- **DRUG FREE WORKPLACE FORM**
- **BID TENDER FORM**
- **SCHEDULE OF BIDDER'S PRICES**
- **PUBLIC ENTITY CRIME FORM**
- **SUPPLEMENT TO BID/TENDER FORM**

BID OPENING DUE DATE: MONDAY, JULY 2, 2012 BY NO LATER THAN 11:00 A.M.
- BID #FY2011-2012-006: PUMP STATIONS REHABILITATION.

BIDDERS MUST SUBMIT: RESPONSES MUST BE SUBMITTED IN THE FORM OF ONE (1) ORIGINAL AND ONE (1) TRUE AND EXACT CD (PDF) COPY. THE BID PACKAGE MUST CONTAIN AND INCLUDE ALL BID PAGES. REMEMBER TO SIGN, NOTARIZE, AND ATTEST ALL REQUIRED PAGES.

BIDS SHALL BE SUBMITTED IN SEALED ENVELOPES. BIDS MUST BE MAILED OR HAND DELIVERED TO:

CITY OF HALLANDALE BEACH
CITY CLERK'S DEPARTMENT – EXECUTIVE OFFICERS
400 S. FEDERAL HIGHWAY – 2ND FLOOR
HALLANDALE BEACH, FLORIDA 33009
TITLED: BID #FY 2011-2012-006: PUMP STATIONS REHABILITATION

NOTE: Failure to comply with all items stated in the Bid may be cause for rejection of the Proposal.

UNABLE TO SUBMIT BID? We sincerely hope this is not the case. If your firm cannot submit a BID at this time, please provide the information requested in the space provided below and return:

**WE _____ HAVE RECEIVED THE
BID**

COMPANY NAME

**WE ARE UNABLE TO RESPOND TO THE BID AT THIS TIME DUE TO THE
FOLLOWING REASONS:**

COMPLETE INFORMATION BELOW:

SIGNATURE:	
TITLE:	
STREET ADDRESS: (OR)	
P.O. BOX:	
CITY:	
STATE:	ZIP CODE:
TELEPHONE/AREA CODE: ()	
EMAIL ADDRESS:	

RETURN THIS UNABLE TO SUBMIT FORM ONLY TO:
CITY OF HALLANDALE BEACH
GENERAL SERVICES/PURCHASING DEPARTMENT
400 S. FEDERAL HIGHWAY, ROOM 242
HALLANDALE BEACH, FLORIDA 33009
TITLED: BID #FY 2011-2012-006: PUMP STATIONS REHABILITATION



PROSPECTIVE BIDDERS NOTICES
PROJECT DRAWINGS

Copies of the projects drawings as listed on Page 53 of the specifications are available for forty dollars (\$40.00) non-refundable payable by cash, money order, or cashier check payable to City of Hallandale Beach. Please call in advance to the Department and contact person below:

CITY OF HALLANDALE BEACH
UTILITIES AND ENGINEERING DEPARTMENT
630 NW 2ND STREET
HALLANDALE BEACH, FLORIDA
CONTACT PERSONS: A.J. AJAYI, E.I. (OR)
MICHAEL REED, ENGINEER TECH/CADD OPERATOR
TELEPHONE NUMBER: 954-457-1621 OR 954-457-1397

BID DOCUMENTS DOWNLOAD INSTRUCTIONS:

The City of Hallandale Beach General Services/Purchasing Department prefers that the BID #FY2011-2012-006 Pump Stations Rehabilitation, be obtained through the City of Hallandale Beach Website at www.cohb.org/Bidnotifications.

For questions regarding this solicitation email the General Services/Purchasing Department at General_Services_Office@hallandalebeachfl.gov or fax written requests to (954) 457-1342.

Should you have difficulty obtaining copies of the project drawings please contact:

CITY OF HALLANDALE BEACH
UTILITIES AND ENGINEERING DEPARTMENT
630 NW 2ND STREET
HALLANDALE BEACH, FLORIDA
CONTACT PERSON: RICHARD LABINSKY, P.E.
TELEPHONE NUMBER: 954-457-3042

NOTICE TO BIDDERS

Sealed bids for providing and delivering all necessary labor, materials, equipment, and services for the completion of the work, including installation of materials, supplies and equipment sold and delivered for **BID #FY2011-2012-006: PUMP STATIONS REHABILITATION PROJECT FOR AREA BOUNDARY BETWEEN THE INTERSECTIONS OF SW 4TH AVENUE/SW 5TH STREET, PARKVIEW DRIVE/LESLIE DRIVE AND SW 8TH STREET/SW 9TH AVENUE.**

Bid Submissions will be received by the City Clerk Office's Department, Executive Offices, 400 South Federal Highway, 2nd Floor, Hallandale Beach, Florida, 33009 for the City of Hallandale Beach, until **11:00 A.M., MONDAY, JULY 2, 2012.**

Bids will be publicly opened in the City Commission Chambers or other designated area, at City Hall, 400 South Federal Highway, Hallandale Beach, Florida 33009.

MANDATORY PRE-BID CONFERENCE IS SCHEDULED ON THURSDAY, JUNE 21, 2012, AT 10:30 AM AT THE FOLLOWING LOCATION:

CITY OF HALLANDALE BEACH
CITY COMMISSION CHAMBERS
400 S. FEDERAL HIGHWAY
HALLANDALE BEACH, FLORIDA 33009
TITLED: BID #FY 2011-2012-006: PUMP STATIONS REHABILITATION

PLEASE REVIEW THE BID AND BRING YOUR QUESTIONS TO THE MANDATORY CONFERENCE SINCE IT WILL BE THE ONLY OPPORTUNITY TO ASK QUESTIONS.

Each bid must be accompanied by a bid guaranty in an amount equal to five (5%) percent of bid total amount your company is responding to.

A Performance Bond in an amount equal to one hundred 100(%) percent of total Contract amount must be submitted by the successful Bidder within five (5) calendar days after receipt of notification of award.

Your firm's bid submission shall be valid until such time as City Commission awards a contract as a result of this bid.

The City of Hallandale Beach reserves the right to waive technicalities or irregularities in bids at its discretion or to reject any or all bids.

**0010. MEDIA ADVERTISEMENT
LEGAL CLASSIFIED ADVERTISING
NEWS/SUN-SENTINEL
333 S.W. 12TH AVENUE
DEERFIELD BEACH, FL 33442**

Please insert the following Legal Notification in the Friday, June 8, 2012 issue of the NEWS/SUN-SENTINEL. Send certified copy of insertion to the City of Hallandale Beach, General Services/Purchasing Department.

**CITY OF HALLANDALE BEACH
400 SOUTH FEDERAL HIGHWAY
HALLANDALE BEACH, FL 33009
NOTICE TO BID
BID #FY2011-2012-006: PUMP STATIONS REHABILITATION**

The City of Hallandale Beach will accept responses from qualified firms to provide goods and/or services identified in the specifications document.

SCOPE OF WORK: The scope of work includes, but is not limited to, firms having experiences and qualifications for well and pump station repairs rehabilitation and installation services for pump stations numbers; 4, 12 and 13.

BUDGET: Estimated budget for this project is \$ 150,000.00.

TO OBTAIN SPECIFICATIONS: Bids may be obtained through the City of Hallandale Beach Website at www.cohb.org/Bidnotifications.

BID BOND: Each bid must be accompanied by a bid guaranty in an amount equal to five percent (5%) of bid total amount your company is responding to.

MANDATORY PRE-BID CONFERENCE: There will be (1) Mandatory Pre-Bid Conference scheduled Thursday, June 21, 2012 at 10:30 AM at City of Hallandale Beach, City Hall, 400 South Federal Highway, City Commission Chambers, Hallandale Beach, FL 33009. You must attend and sign in at this meeting for your Bid to be accepted.

MANDATORY SITE VISIT WILL IMMEDIATELY FOLLOW THE MANDATORY PRE-BID CONFERENCE MEETING.

PLEASE REVIEW THE BID AND BRING YOUR QUESTIONS TO THE MANDATORY PRE-BID CONFERENCE SINCE IT WILL BE THE ONLY OPPORTUNITY TO ASK QUESTIONS. ALL VENDORS THAT RESPOND MUST MEET THE MINIMUM QUALIFICATIONS REQUIREMENTS SPECIFIED IN THE BID.

**DUE DATE/TIME: DATE: MONDAY, JULY 2, 2012 TIME: NO LATER THAN 11:00 A.M.
Late submittals will not be accepted or considered.**

Copies of the project drawings are available for (\$40.00) non-refundable payable by cash, check or cashier check to City of Hallandale Beach. Please contact the City of Hallandale Beach Utilities & Engineering Department, 630 NW 2nd Street, Hallandale Beach, Florida 33009, Phone Contact: Mr. Michael Reed, Engineer Tech (954)457-1397, or Richard Labinsky, City Engineer at (954)457-3042. Please call in advance so plans will be ready.

The City of Hallandale Beach, Florida reserves the right to waive any informality in any response and to reject any or all responses.

NOTE:

ALL PROSPECTIVE RESPONDENTS ARE HEREBY CAUTIONED NOT TO CONTACT ANY MEMBER OF THE CITY OF HALLANDALE BEACH STAFF OR OFFICIALS OTHER THAN THE SPECIFIED CONTACT PERSON.



This 4th Day of June, 2012
Lues, Andrea, Director
General Services Department

CITY ADMINISTRATORS AND DEPARTMENTS LIASIONS

1.	CONTRACT ADMINISTRATOR
	Renee Crichton, City Manager
	400 S. Federal Highway
	Hallandale Beach, Florida 33009
	(954) 457-1300
2.	DIRECTOR OF UTILITIES & ENGINEERING AND PUBLIC WORKS
	Hector Castro, P.E.
	630 NW 2nd Street
	Hallandale Beach, Florida 33009
	(954) 457-1623
3.	GENERAL SERVICES/PURCHASING DIRECTOR
	Andrea Lues
	400 S. Federal Highway
	Hallandale Beach, Florida 33009
	(954)457-1332
4	GENERAL SERVICES/PURCHASING SPECIALIST
	Joann Wiggins
	400 South Federal Highway
	Hallandale Beach, FL 33009
	(954) 457-1331
5	CITY ENGINEER – REPRESENTATIVE
	Richard Labinsky, P.E.
	630 NW 2nd Street
	Hallandale Beach, Florida 33009
	(954) 457-3042
6	ENGINEER I
	A.J. Ajayi, E.I.
	630 NW 2nd Street
	Hallandale Beach, Florida 33009
	(954) 457-1621

BID TENTATIVE SCHEDULE

THE DATES SHOWN BELOW ARE TENTATIVE AND ARE NOT BINDING AND MAY BE SUBJECT TO CHANGE.

BID ADVERTISING DATE	JUNE 8, 2012
BID DOCUMENT RELEASED	JUNE 8, 2012
MANDATORY PRE-BID CONFERENCE	JUNE 21, 2012 AT 10:30<u>AM</u>
QUESTIONS	WILL ONLY BE ANSWERED AT THE MANDATORY PRE-BID CONFERENCE SCHEDULED ON JUNE 21, 2012 AT 10:30<u>AM</u>
BID DEADLINE FOR RECEIPT OF PROPOSALS	JULY 2, 2012 BY NO LATER THAN <u>11:00 AM</u>
CONTRACT AWARD BY CITY COMMISSION – ESTIMATED	TO BE DETERMINED
PROJECT START DATE – ESTIMATED	TO BE DETERMINED

END OF SECTION

CITY OF HALLANDALE BEACH INVITATION TO BID

NOTICE TO BIDDER: SEALED BIDS WILL BE RECEIVED ON THE DATE, AND AT THE PLACE, AND FOR THE ITEMS LISTED ON THE ATTACHED CITY BID FORMS. BIDS WILL BE PUBLICLY OPENED AT CITY HALL; CITY COMMISSION CHAMBERS IN THE PRESENCE OF BIDDERS AND CITY OFFICIALS. AFTER TABULATION AND REVIEW, AND WHEN REQUIRED, BIDS WILL BE PRESENTED TO THE CITY COMMISSION FOR AWARD OF CONTRACT AT A COMMISSION MEETING.

PURPOSE OF BID: THE CITY OF HALLANDALE BEACH INTENDS TO SECURE A SOURCE OF SUPPLY FOR ITEM(S) OR SERVICES(S) AT THE LOWEST PRICE AND IN BEST INTEREST OF THE CITY. PROMPT AND CONVENIENT SERVICE AND SHIPMENT BY THE SUPPLIER TO THE CITY. ANY FAILURE ON THE PART OF THE SUPPLIER TO COMPLY WITH THE ENSUING CONDITIONS AND SPECIFICATIONS SHALL BE REASON FOR TERMINATION OF CONTRACT. THE CITY RESERVES THE RIGHT TO MAKE AN AWARD TO THE SUPPLIER WHERE THE PRODUCT MEETS THE SPECIFICATIONS, TERMS AND CONDITIONS AND WHERE THE BID IS CONSIDERED TO BEST SERVE THE CITY'S INTEREST.

1. SUBMISSION AND RECEIPT OF BIDS:

- Bids to receive consideration, must be received on or prior to the specified time and date of bid opening, as designated in the bid.
- Unless otherwise specified, bidders **MUST** use the proposal form(s) or format furnished by the City, failure to do so may be cause for rejection of bid. Removal of any part of the bid items may invalidate bid.
- Proposal having any erasure or corrections **MUST** be initialed by the bidder in **INK**. Bids shall be signed in **INK**; all forms shall be typewritten or printed with pen and ink.
- **MANDATORY PRE-BID MEETING IS SCHEDULED ON THURSDAY, JUNE 21, 2012 @ 10:30 A.M., AT CITY OF HALLANDALE BEACH, CITY HALL, 400 SOUTH FEDERAL HIGHWAY, CITY COMMISSION CHAMBERS, HALLANDALE BEACH, FL 33009.**
- **MANDATORY SITE VISIT WILL IMMEDIATELY FOLLOW THE MANDATORY PRE-BID CONFERENCE MEETING.**
- **ATTENDANCE AT THE PRE-BID CONFERENCE IS MANDATORY.**

- **IF YOU DO NOT ATTEND THE MANDATORY PRE-BID CONFERENCE AND SITE VISIT YOUR BID WILL NOT BE ACCEPTED.**

- **PLEASE REVIEW THE BID AND BRING YOUR QUESTIONS TO THE MANDATORY CONFERENCE SINCE IT WILL BE THE ONLY OPPORTUNITY TO ASK QUESTIONS.**

- **BIDDERS MUST SUBMIT: RESPONSES MUST BE SUBMITTED IN THE FORM OF ONE (1) ORIGINAL AND ONE (1) TRUE AND EXACT CD (PDF) COPY. THE BID PACKAGE MUST CONTAIN AND INCLUDE ALL BID PAGES. REMEMBER TO SIGN, NOTARIZE, AND ATTEST ALL REQUIRED PAGES.**

ALL SUBMSSIONS ARE TO:
CITY OF HALLANDALE BEACH
CITY CLERK'S DEPARTMENT – EXECUTIVE OFFICES
400 S. FEDERAL HIGHWAY – 2ND FLOOR
HALLANDALE BEACH, FLORIDA 33009
TITLED: BID #FY 2011-2012-006: PUMP STATIONS REHABILITATION

- **DATE/TIME OF BID OPENING: PLAINLY MARK ON THE OUTSIDE OF THE ENVELOPE, THE BID NUMBER, PROJECT TITLE AND TIME AND DATE OF BID OPENING. IT WILL BE THE SOLE RESPONSIBILITY OF THE BIDDER TO ENSURE THAT THE BID REACHES THE OFFICE OF THE CITY CLERK, CITY OF HALLANDALE BEACH ON OR BEFORE MONDAY, JULY 2, 2012 @ BY NO LATER THAN 11:00 AM.**

2. PUBLIC BID DISCLOSURE ACT:

FLORIDA STATUE CHAPTER 218.80: City's permits or fees, including, but not limited to all license fees, permits fees, impact fees, or inspection fees, payable by the contractor to the City are as follows:

- **BUILDING PERMITS WILL BE REQUIRED AND PAID FOR BY THE CITY SEE ARTICLE 8, PAGE [163] – PERMITS, LICENSES AND IMPACT FEES IN THE CITY FORM CONTRACT.**

3. WARRANTIES FOR USAGE:

Whenever a bid is sought, seeking a source of supply for a specified period of time for materials or services, the quantities or usage shown are ESTIMATED ONLY. No guarantee or warranty is given or implied by the City as to the total amount that MAY OR MAY NOT be purchased from any resulting contract(s).

These quantities are for bidders information ONLY and will be used for tabulation and presentation or bid and the City reserves the right to increase or decrease quantities as required.

4. BIDS ACCEPTANCE PERIOD:

Bidder warrants by virtue of bidding the prices, terms and conditions quoted in the bid, bid will remain firm and valid until such time as City Commission awards a contract as a result of this bid.

5. PROTEST PROCEDURES:

Protests

Any party may present a written protest about the award of a contract as a result of an Request for Proposal (RFP), Request for Qualifications (RFQ) or Invitation to Bid (ITB) to the Director of General Services Department. Emergency procurements, purchases for goods, supplies, equipment, and services, the estimated cost of which does not exceed \$50,000.00, **are not** subject to protests.

Timeframes for Protest

The submission of a protest related to an award of a contract, as a result of an RFP, RFQ or ITB must be made no later than ten (10) calendar days from the date of contract award by the City Commission.

Form and Content of Protest

Protests must be filed in writing with the City Clerk. The protest shall identify the solicitation number and set forth a detailed statement of the legal and factual grounds of protest and include all pertinent documents and shall state the relief requested. Any grounds not stated within the letter of protest shall be deemed to be waived.

Protest Fee and Cost Bond

The written protest must be accompanied by a non-refundable protest filing fee in the amount of \$500.00, plus a cost bond in the form of a certified cashier's check payable to the City of Hallandale Beach of the lesser of an amount equal to one (1) percent of the contract value, which resulted from an RFP, RFQ or ITB, or \$5,000.00.

Authority to Resolve Protests

The Director of General Services shall have the authority, subject to the approval of the City Manager and the City Attorney, to settle and resolve any written protest within thirty (30) days after receipt of the written protest.

If a protest is upheld by the Director of General Services the cost bond shall be refunded to the protestor less any costs assessed under section "Costs" below.

Cost Bond

All costs incurred from a protest shall be charged against the cost bond. The cost bond shall also guarantee the payment of all costs in an appeal to the special magistrate or hearing officer for an administrative proceeding.

Appeal to Special Magistrate

In the event a protest is denied an administrative appeal may be filed with the City Clerk's Office. Appeals must be filed within five (5) days from the date of the decision. The City Attorney shall select a special magistrate or hearing officer who shall hold a hearing and render a final decision. This requirement is a jurisdictional prerequisite to the institution of any civil action in the circuit court regarding the same subject matter. The City may be entitled to recover any and all attorney's fees and costs incurred in an appeal to the circuit court.

Failure to follow the protest procedures set forth herein shall automatically nullify any protest or claim brought by an aggrieved protestor.

6. DELIVERY POINT:

All items shall be delivered F.O.B. destination (i.e., at a specific City of Hallandale Beach address), and delivery costs (if any) will be included in the bid price. Failure to do so may be cause for rejection of the bid.

7. PAYMENT (TERMS):

Payment will be made ONLY after receipt and acceptance of materials/services.

8. BRAND NAMES:

If and whenever in the specifications a brand name, make name of any manufacturer, trade name, or vendor catalog number is mentioned, it is for the purpose of establishing a grade or quantity of materials ONLY. Since the City does not wish to exclude other competition and equal brands or makes, the phrases "OR APPROVED EQUAL" is added. However, if a product other than that specified is bid, it is the vendor's responsibility to name such a product within the bid and to prove to the City that said product is equal to that specified and to submit brochures, samples and/or specifications in detail on item(s) bid. The City shall be the sole judge concerning the merits of bids submitted.

9. SAMPLES AND DEMONSTRATIONS:

Evidence in the form of samples may be requested when required if brand is other than specified. Such samples are to be furnished after the date of the bid opening only, upon requested by City, unless otherwise stated in the bid forms. It samples

shall be requested, such samples must be received by the City no later than seven (7) days after formal request is made. When required, the City may request full demonstrations of any unit(s) bid prior to the award of any contract.

Samples, when requested, must be furnished free of expense to the City and if not used in testing or destroyed, upon written request will within thirty (30) days of bid award be returned at the bidders expense.

10. QUALITY:

All materials for the manufacture or construction of any supplies, materials, or equipment covered by this bid shall be NEW. The items bid must be new, the latest model, of the best quality and highest grade workmanship.

11. ACCEPTANCE OF MATERIAL:

The item(s) delivered under this proposal shall remain the property of the seller until physical inspection and actual usage of the item(s) and/or services are made and thereafter accepted to the satisfaction of the City and must comply with the terms herein, and be fully in accord with the specifications and of the highest quality. In the event the material and/or services supplied to the City is found to be defective or does not conform to the specifications, the City reserves the right to cancel the order upon written notice to the seller and return the product(s) to the seller at the seller's expense.

12. VARIATIONS TO THE SPECIFICATIONS:

For purposes of evaluation, bidder MUST indicate any variances from the City specifications, no matter how slight. If variations are not stated in proposal, it will be assumed that the product or service fully complies with City specifications, terms and conditions.

13. DELIVERY:

Time will be of essence for any orders placed as a result of this bid. Purchaser reserves the right to cancel such orders, or any part thereof, without obligation, if delivery is not made at the time specified on the bid proposal form.

14. DEFAULT PROVISION:

In case of default by the successful bidder contractor, the City of Hallandale Beach may procure the items or services from other sources and hold the bidder or contractor responsible for any excess cost occasioned or incurred thereby.

15. PRICING:

Prices shall be stated in units of quantity specified in the bid specifications. In case of a discrepancy in computing the total amount of bid UNIT PRICE quoted will govern.

16. MANUFACTURE'S WARRANTIES:

All bidders shall provide manufacture's warranty on labor and materials prior to award. Such warranty will indicate time period of guarantee. In addition to manufacturer's warranty, bidders will also provide their own warranty on labor and materials.

17. COPYRIGHTS AND/OR PATENT RIGHTS:

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

18. SAFETY STANDARDS:

The bidder warrants that the service and products to the City conform in all respects to the standards set forth in the Occupational Safety & Health Act (O.S.H.A.) and its amendments; failure to comply with this condition will be considered a breach of contract.

19. TRENCH SAFETY ACT:

Bidders must be in compliance with requirements as outlined per Florida Statutes Chapter 553.60 through 553.64.

20. TAXES:

The City of Hallandale Beach, Florida is exempt from any taxes imposed by the State of Florida and/or Federal Government. State Sales Tax Exemption Certificate No. 16-04199765-54C; United States Treasure Department I.R.S. No. 59-6000333, applies and appears on each City of Hallandale Beach Purchase Order. Exemption Certificate provided on request.

21. FAILURE TO QUOTE:

If you do not quote, please return the form, "UNABLE TO SUBMIT A BID", stating thereon and request that your name be retained on the City mailing list, otherwise, your name may be removed from the City bid mailing list.

22. MANUFACTURER'S CERTIFICATION:

The City of Hallandale Beach reserves the right to request from bidders, separate manufacturer certificate of all statements made in the proposal.

23. SIGNED BID CONSIDERED AN OFFER:

The signed bid shall be considered an offer on the part of the bidder or contractor, which offer shall be deemed accepted upon approval by the City Commission of the City of Hallandale Beach, Florida and in case of default on the part of the successful bidder or contractor, after such acceptance, the City may take such action as it deems appropriate, including legal action, for damages or specific performance.

24. LIABILITY, INSURANCE, LICENSES AND PERMITS:

Where bidders are required to enter onto City of Hallandale Beach property to deliver materials or perform work or services, as a result of bid award, the bidder will assume full duty, obligation and expense of obtaining all necessary licenses, permits, inspections and insurance, as required. The bidder shall be liable for any damage or loss to the City occasioned by negligence of the bidder (or agent) or any person the bidder has designated in the completion of a contract as a result of the bid.

25. RESERVATION FOR REJECTION AND AWARD:

The City of Hallandale Beach, reserves the right to accept or reject any or all bids or parts of bids, to waive irregularities and technicalities, and to request re bids the required materials. The City also reserves the right to award the contract on such material the City deems will best serve its interests. City further reserves the right to award the contract on a split order basis, lump sum, or individual item basis, or such combination as shall best serve the interest of the City, unless otherwise stated. The City also reserves the right to waive minor variations to specifications (interpretation of minor variations will be made by applicable City Department personnel). In addition, the City reserves the right to cancel any contract by giving thirty (30) days written notice.

26. PROCESSING OF RESPONSES TO BIDS AND PROPOSALS:

Sealed Bids or Proposals by the City of Hallandale Beach shall be opened, evaluated, negotiated and awarded, as applicable, in accordance with State Statutes, the City Charter, Code of Ordinances, and any City Administrative Policies.

No company and/or firm may discuss procurement for goods or services with members of the City Commission per City Administrative Policy #2019.004/R12 – Purchasing Procedures, City Municipal Code of Ordinances and City Charter. Failure to comply may be cause for rejection of the proposal.

27. PUBLIC RECORDS:

Sealed bids, or replies received by an agency pursuant to a competitive solicitation are exempt from s. 119.07(1) and s. 24(a), Art. I of the State

Constitution until such time as the agency provides notice of an intended decision or until 30 days after opening the bids, proposals, or final replies, whichever is earlier.

If the bidder/proposer believes any of the information contained in his or her response is exempt from the Public Records Law, then the Proposer, must in his or her response, specifically identify the material which is deemed to be exempt and cite the legal authority for the exemption. City's determination of whether an exemption applies shall be final, and bidder/proposer agrees to hold harmless and releases the City, and to defend, indemnify, by Counsel chosen by the City Attorney, the City and City's officers, employees, and agents against any loss or damages incurred by any person or entity as a result of the City's treatment of records as public records.

28. LOCAL PREFERENCE:

In the award of this bid and the determination of the lowest, responsive and responsible bidder, the City Commission may award a preference based upon vendors, contractors or subcontractors who are local and whose bid is within five percent (5%) of the apparent lowest bid with a preference in the following order:

- 1) First, to bidders who maintain a place of business within the City of Hallandale Beach limits. Vendor is to submit with the bid package proof of Florida Department of State Division of Corporation (Sunbiz) Annual Report issued one (1) year prior to bid submission for the appropriate goods, services or construction to be purchased; or
- 2) Second, to bidders who maintain a place of business within the County of Broward. Vendor is to submit with the bid package proof of Florida Department of State Division of Corporation (Sunbiz) Annual Report issued one (1) year prior to bid submission for the appropriate goods, services or construction to be purchased; or

- 3) Third, to bidders who maintain a place of business with the State of Florida. Vendor is to submit with the bid package proof of Florida Department of State Division of Corporation (Sunbiz) Annual Report issued one (1) year prior to bid submission for the appropriate goods, services or construction to be purchased.

29. CONE OF SILENCE:

Per Section 2.3 (e) of the City of Hallandale Beach Code of Ordinances, Lobbyists shall cease all contact and communication with the City Commission forty-eight hours before the date set for a decision on a matter, unless contacted by a City Commissioner.

No City board, agency or committee shall have contact forty-eight hours before the date set for a decision on a matter.

Per Chapter 23, Section 23-105 of the City of Hallandale Beach Code of Ordinances and the City's Protocol Manual, Section 3 H., the City Commission shall not be involved in the preparation, submittal and evaluation of bids, request for proposals and other purchases, including attendance at or participating in presentations to or deliberations by a selection committee or contact with persons, firms, organizations, and corporations submitting bids or proposals to the City.

**30. LOBBYIST REGISTRATION:
Registration:**

Every lobbyist shall file the registration with the City Clerk's office on the form provided by the City. Under no circumstances shall a lobbyist working for the City lobby the City Commission.

Annual registration:

Commencing January 1, 2005, and annually thereafter, every lobbyist shall submit to the City Clerk's office a signed statement under oath identifying themselves and their respective principals or clients and/or the party they represented on city matters over the past year or in accordance with administrative policy. Such annual disclosure statements shall be submitted on the form provided by the City Clerk's office. A fee of \$100.00 shall be paid to the city for annual lobbyist registration.

31. QUALIFICATIONS AND EXPERIENCE:

Provide at least three references familiar with your work experience and expertise in this area. Please provide the name, address and phone number of each reference.

32. SILENCE OF SPECIFICATIONS:

The apparent silence of this specification and any supplemental specifications as to any details or the omission from it of a detailed description concerning any point will be regarded as meaning that only the best commercial practices are to prevail, and that only materials of first quality and correct type, size and design are to be used. All workmanship is to be first quality. All interpretations of this specification shall be made upon the basis of this statement.

33. BID ATTACHMENTS:

A bid response to an Invitation-To-Bid, which has attached a condition of sale or any other attachments, which alters the specifications, conditions, term or makes it subordinate, may be cause for rejection.

34. INSURANCE REQUIREMENTS FORM CONTRACT:

ARTICLE 5: PAGES [159] THROUGH PAGES [161].

35. NONDISCRIMINATION, EQUAL OPPORTUNITY AND AMERICANS WITH DISABILITIES ACT

CONTRACTOR shall not unlawfully discriminate against any person in its operations and activities in its use or expenditure of funds or any portion of the funds provided by this Agreement and shall course of providing any services funded in whole or in part by CITY, including Titles I and II of the ADA (regarding nondiscrimination on the basis of disability), and all applicable regulations, guidelines and standards.

CONTRACTOR's decisions regarding the delivery of services under this Agreement shall be made without regard to or consideration of race, age, religion, color, gender, sexual orientation (Broward County Code, Chapter 16 ½), gender identity, gender expression, national origin, marital status, physical or mental disability, political affiliation, or any other factor which cannot be lawfully or appropriately used as a basis for service delivery.

CONTRACTOR shall comply with Title I of the Americans with Disabilities Act regarding nondiscrimination on the basis of disability in employment and further shall not discriminate against any employee or applicant for employment because of race, age, religion, color, gender, sexual orientation, gender identity, gender expression, national origin, marital status, political affiliation, or physical or mental disability. In addition, CONTRACTOR shall take affirmative steps to ensure nondiscrimination in employment against disabled persons.

Such actions shall include, but not be limited to the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff, termination, rates of pay, other forms of compensation, terms and conditions of employment, training (including apprenticeship, and accessibility).

CONTRACTOR shall take affirmative action to ensure that applicants are employed and employees are treated without regard to race, age, religion, color, gender, sexual orientation (Broward County Code, Chapter 16 ½), gender identity, gender expression, national origin, marital status, political affiliation, or physical or mental disability during employment.

Such actions shall include, but not be limited to the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff; termination, rates of pay, other forms of compensation, terms and conditions of employment, training (including apprenticeship), and accessibility.

CONTRACTOR shall not engage in or commit any discriminatory practice in violation of the Broward County Human Rights Act (Broward County Code, Chapter 16 ½) in performing any services pursuant to this Agreement.

36. SCRUTINIZED COMPANIES

The City, entering into a contract for goods or services of \$1 million or more, entered into or renewed on or after July 1, 2011, can terminate such contract at the option of the City if the company awarded the contract is found to have submitted a false certification or has been placed on the Scrutinized Companies with Activities in Sudan List or Scrutinized Companies with Activities in the Iran Petroleum

37. SMALL BUSINESS ENTERPRISE (SBE) BUSINESS UTILIZATION PLAN

A business that is currently certified under the Broward County Small Business Enterprise program, pursuant to Chapter 20, Article XIV, Code of Metropolitan Broward County.

The City encourages all who respond to this bid to utilize or make good faith efforts to utilize SBE Firms that are certified under the Broward County SBE program.

38. ENCLOSURES/ATTACHMENT REQUIREMENTS:

✓	ONE (1) COMPLETE SET OF GENERAL INSTRUCTIONS
✓	DRUG-FREE WORKPLACE FORM
✓	BID/TENDER FORM
✓	SCHEDULE OF BID PRICES – PROJECT A THROUGH C
✓	PUBLIC ENTITY CRIME FORM
✓	SUPPLEMENT TO BID/TENDER FORM
✓	TECHNICAL SPECIFICATIONS
✓	FORM CONTRACT – INCLUDING INSURANCE REQUIREMENTS

39. BID GUARANTEE AND BOND REQUIREMENTS:

✓	a) Bid Guarantee: Each bidder shall submit with his/her bid, a bid guarantee in the form of a Certified Check, Cashier's Check, Bid Bond in the amount of five percent (5%) of the total bid price, payable to the City of Hallandale Beach.
✓	b) Performance Bonds and Payment Bond Form: The bidder to whom award is made shall, within FIVE (5) calendar days after the date of award, furnish a performance bond with good and sufficient surety acceptable to the City of Hallandale Beach. ➤ Performance Bond: The penal sum of the performance bond shall equal one hundred percent (100%) of the contract price.

00100. INSTRUCTIONS TO BIDDERS

1. General: The following instructions are given for the purpose of guiding Bidders in properly preparing their bids. These instructions have equal force and weight with other portions of the Bid project document and strict compliance is required with all the provisions contained herein.

2. Minimum Qualification Requirements:

- **In order to be considered Firms must have five (5) years experience under its current business name. Providing the scope of work as specified in this bid. The information will be verified through Sunbiz at <http://www.sunbiz.org/search.html>.**
- **Provide a letter on your company's letterhead indicating that firm providing the proposal has a minimum of five (5) years of experience providing the services requested in this bid. The firm responding must possess a minimum of five (5) years experience under its current business name. This information will be verified through Sunbiz at <http://www.sunbiz.org/search.html>.**
- **Proposers shall provide a copy of the Florida State License issued to the business for the profession/trade, if applicable. Submit copies of license(s).**
- **Proposers shall provide a copy of evidence of Broward County License issued to the business for the profession/trade, if applicable. Submit copies of license(s).**
- **Provide five (5) references of projects of a similar size, scope and complexity to this Bid that have been completed by your company within the last five (5) years. For each project provide the name of company/owner/business for which the services were provided, contact name of individual and his or her role/title, address of the company, and telephone number. The City will call the names provided for references.**

Minimum Qualifications are intended to establish if the respondent is authorized minimally qualified to provide the services and scope solicited. Bidders shall provide proof of these minimum qualifications with the submission of Bid.

IF THE MINIMUM QUALIFICATION ABOVE IS NOT MET THE BIDDER'S SUBMITTAL WILL BE DEEMED NON-RESPONSIVE AND WILL NOT BE CONSIDERED.

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3. **Purpose:** The City of Hallandale Beach (City) is seeking Bids from qualified firms, hereafter referred to as Contractor, to repair and install pump stations #4; #12 and #13 to include installation of ductile, iron pipe, construction, maintenance of traffic and necessary restoration. The work set forth within these bid documents includes the furnishing of all labor, materials, equipment, services and incidentals for the construction of Pump Station Improvements as shown on the drawings and specified herein.

 4. **Scope of Work:** The work set forth within this bid document includes the furnishing of all labor, materials, equipment, services and incidentals as shown in the technical specification documents.

 5. **Schedule of Work Hours:** Normal Business Hours (8am to 5 pm weekdays).

 6. **SITE LOCATION OF WORK:**
Project addresses are referenced are within the area boundary between the intersection of SW 4th Avenue/SW 5th Street, Parkview Drive/Leslie Drive and SW 8th Street/SW 9th Avenue for Project [A] Pump Station #4; Project [B] Pump Station #12 and Project [C] Pump Station #13.

6.1. **Additional Information:** The City of Hallandale Beach is a City Manager/City Commission form of government. It serves an area of approximately 4.4 square miles with a population of approximately 35,000. The City's fiscal year begins October 1st and ends September 30th.

 7. **Examination of Bid project document and Site:** It is the responsibility of each Bidder before submitting a Bid, to:
 - 7.1. Examine the Bid project document thoroughly,
 - 7.2. Visit the site to become familiar with local conditions that may affect costs, progress, performance or furnishing of the work,
 - 7.3. Consider federal, state and local laws and regulations that may affect cost, progress, performance or furnishing of the work,
 - 7.4. Study and carefully correlate Bidder's observations with the Bid project document, and
 - 7.5. Notify City of all conflicts, errors or discrepancies in the Bid project document.

The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with the above requirements and that without exception the Bid is premised upon performing and furnishing the work required by the contract documents and such means, methods, techniques, sequences of procedures of construction as may be indicated or required by the contract documents, and that the contract documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the work.

8. Interpretations: All questions about the meaning or intent of the Bid project document are to be directed to the CITY. Interpretations or clarifications considered necessary by the CITY in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by CITY as having received the Bidding Documents. Depending upon whether time permits, questions received less than ten days prior to the date of the opening of Bids may or may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
9. Submitting Bids: All bids must be received at the City of Hallandale Beach, City Clerk's Department – Executive Offices, 400 South Federal Highway, 2nd Floor, Room 239, Hallandale Beach, Florida 33009, before the time and date specified for bid opening, enclosed in a sealed envelope, legibly marked on the outside.

TITLED: BID #FY 2011-2012-006: PUMP STATIONS REHABILITATION REPAIRS AND INSTALLATION FOR PUMP NUMBER #4; #12 AND #13.

10. Printed Form of Bid: All bids must be made upon the blank bid tender form attached hereto and should give the price in strict accordance with the instructions thereon. The bid must be signed and acknowledged by the Bidder in accordance with the directions on the bid form.
11. Bid Guaranty: All bids shall be accompanied by either a bid bond executed by a Surety company meeting the qualifications for Surety companies by cash, money order, certified check, cashier's check, irrevocable letter of credit, treasurer's check or bank draft of any national or state bank (United States), in an amount equal to 5 percent (5%) of the total bid price, payable to the City of Hallandale Beach and conditioned upon the successful Bidder executing the Contract and evidence of insurance within five (5) calendar days after notification of award of the Contract. A PERSONAL CHECK OR A COMPANY CHECK OF A BIDDER SHALL NOT BE DEEMED VALID BID GUARANTY.

Guaranty of the successful Bidder shall be forfeited to the City of Hallandale Beach not as a penalty, but as liquidated damages for the cost and expense incurred should said Bidder fail to provide the required Insurance Certificate, or fail to comply with any other requirements set forth herein. Bid Guaranties of the unsuccessful Bidders will be returned after award of Contract.

Qualification of Surety: For projects of \$500,000.00 or less, the City may accept a Bid Bond from a surety company which has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued, if the surety company is otherwise in compliance with the provisions of the Florida Insurance Code, and if the surety company holds a currently valid Certificate of Authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code. The Certificate and Affidavit so certifying should be submitted with the Bid Bond.

More stringent requirements of any grantor agency are set forth within the Supplemental Conditions. If there are no more stringent requirements, the provisions of this section shall apply.

12. Acceptance or Rejection of Proposals: The City reserves the right to reject any or all bids. Reasonable efforts will be made to **promptly award the Contract after bid opening date. A Bidder may withdraw his/her bid in writing to: City of Hallandale Beach, General Services/Purchasing Department, 400 South Federal Highway, Room 242; Hallandale Beach, Florida 33009. ATTENTION: BID # 2011-2012-006 WITHDRAWAL.**
13. Time for Executing Contract and Providing Required Documentation: Any Bidder whose bid is accepted shall execute the contract and furnish the required Certificate(s) of Insurance within five (5) calendar days after receipt of notice that the contract has been awarded to such Bidder.

Upon the failure of the Bidder to execute the Contract and provide the required Certificate(s) of Insurance within five (5) calendar days the Bidder shall pay to the City the sum of \$500.00 for each calendar day beyond the five (5) calendar days as liquidated damages.

By execution of the Contract, Contractor agrees that said amount of liquidated damages shall be set forth in a change order and deducted from the first partial payment made to the Contractor for the work done under the Contract.

If the Bidder fails to execute the contract and furnish the required Certificate(s) of Insurance by the 30th day after the notice of award, the Bidder shall forfeit the Bid Guaranty.

14. Contract Time: Time will be of the essence of any orders placed as a result of this bid.
15. Method of Award: The City reserves the right to award all or a part of this contract.
16. Contract Deductions: Upon the occurrence of any acts or omissions listed below, deductions may be assessed in whole or in part, against the Contractor in the amount indicated below, for each occurrence and for each day the occurrence remains uncorrected. In the event that the date of the initial occurrence cannot be established, the assessment will start from the date of discovery until the irregularity is corrected. Except for time and attendance infractions, the City's Contract Administrator shall provide the Contractor with written notice of intent to make such assessment against the infractions listed below. These deductions will be deducted against monies due or to become due to the Contractor.
- Up to 1% deduction from the Monthly invoices submitted by the Contractor for the following:
1. Failure to provide resources, once committed, in a timely manner.
 2. Claim of worker qualifications that are shown to be an error.
17. Determination of Award: Except where the City exercises the right reserved herein to reject any or all bids and subject to the restrictions stated hereinabove, the contract shall be awarded by the City to the responsible Bidder who has submitted either the lowest responsive bid or the lowest responsive bid on the base bid including such alternates as the City determines to be in its own best interests depending upon whichever is applicable to the particular bid. These Contract Documents may include additional terms and conditions required by federal or state grantor agencies. In the event of any discrepancy between the grantor agency's regulations and the City's regulations, the more stringent regulations concerning the determination for award shall apply.
18. Price: The price is to include the furnishing of all labor, materials, equipment including tools, services, permit fees and applicable taxes, necessary or proper for the completion of the work except as may be otherwise expressly provided in the Bid Project Document.
19. Availability of Funds: the obligation of the City of Hallandale Beach under the award/contract is subject to the availability of funds in accordance with the annual budget.

20. Contract Price: Fixed prices are requested for items listed on the Schedule of Bid Prices. No price increase will be accepted during the initial contract period of one (1) year.
21. Contract Term: The initial contract period shall be for one (1) year, commencing upon award by the City Commission.

Contract may be cancelled within thirty (30) days with a written notice by the City of Hallandale Beach.

22. Postponement of Date for Presenting and Opening of Bids: The City reserves the right to postpone the date for receipt and opening of bids and will make a reasonable effort to give at least seven days written notice of any such postponement to each prospective Bidder.
23. Qualifications of Bidders: Bids shall be considered only from firms normally engaged in performing the type of work specified within the Bid Project Document. Bidder must have adequate organization, facilities, equipment, and personnel to ensure prompt and efficient service to the City.

In determining a Bidder's responsibility and ability to perform the contract, the City has the right to investigate the financial condition, experience record, personnel, equipment, facilities, and organization of the Bidder.

At the time of submitting the bid, Bidder must be in compliance with Chapter 9 of the Broward County Code of Ordinances and the laws of the State of Florida as they relate to Certificates of Competency.

Each Bidder should submit with the bid a copy of his or her Certificate of Competency and/or state registration. If your firm does not have the certificate of competency please access the Broward County Ordinances link and click Chapter 9 for requirements.

<http://www.municode.com/resources/gateway.asp?pid=10288&sid=9>

The Director of the General Services/Purchasing Department shall determine whether the evidence of bidder responsiveness is satisfactory and will make awards only when such evidence is deemed satisfactory.

The City of Hallandale Beach reserves the right to reject bids when evidence indicates Bidder's inability to perform the contract.

24. Addenda and Modifications: All addenda and other modifications to the documents made prior to the time and date of bid opening shall be issued as separate documents identified as changes to the Bid Project Document. City shall make reasonable efforts to issue addenda within seven days prior to bid opening.

If any addenda are issued, the City will attempt to notify prospective Bidders. Addenda to this solicitation will be posted on the Division's webpage: www.cohb.org/Bidnotifications.

It is the Bidder's responsibility to check the website or contact the General Services/Purchasing Department prior to the proposal submittal deadline to ensure that the Bidder has a complete bid package.

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

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

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

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

Until acceptance of the work by the City, it shall be under the charge and in care of the Contractor and he shall take every necessary precaution against injury or damage to the work by action of the elements or from the execution or from the non-execution of the work.

The Contractor shall rebuild, restore and make good, at his own expense, all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance.

26. Retainage: Retainage is applicable to Construction Contracts Only. The Contractor agrees that ten percent (10%) of monies earned by Contractor shall be retained by City until fifty percent (50%) completion of the project. After 50% completion of the project and prior to Final Payment, City shall retain five percent (5%) of monies earned by Contractor. The City may retain amounts greater than those set forth above that are the subject of a good faith dispute

pursuant to Federal Statute 255.078 (6), the subject of a claim brought pursuant to Section 255.05, Florida Statutes, or otherwise the subject of a claim or demand by the City or Contractor.

27. Vendor Note: State of Florida Divisions of Corporation (Sunbiz). If the company president does not sign the (Bid) Contract, there must be a Secretary's Certificate Form provided to the City of Hallandale Beach, Florida indicating designee signing has the authority to sign.

All legal actions arising out of or connected with this Agreement must be instituted in the Circuit Court of Broward County, Florida. The laws of the State of Florida shall govern the interpretation and enforcement of this agreement, without regard to Florida's conflict of law's principles. Trial by jury is hereby waived by the parties.

END OF SECTION

00130. DRUG-FREE WORKPLACE FORM

The undersigned vendor in accordance with Florida Statute 287.087

hereby certified that _____ does:
(Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of or plea of guilty or nolo contendere to, any violation of Chapter 1893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

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

Date

Bidder's Signature

00300. BID/TENDER FORM

SUBMITTED BY:
DATE:

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

The Bidder further declares that he has examined the site of the work and informed himself fully of all conditions pertaining to the place where the work is to be done; that he has examined the Bid project document and all addenda thereto furnished before the opening of the bids, as acknowledged below; and that he has satisfied himself about the work to be performed; and that he has submitted the required Bid Guaranty and the Small Disadvantaged Business Enterprise forms (if required) and all other required information with the bid.

The Bidder agrees, if this bid is accepted, to contract with the City of Hallandale Beach, a political subdivision of the State of Florida, on the form attached hereto, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation, and all labor necessary to construct and complete within the time limits specified the work covered by this bid and other Contract Documents for the project entitled: **BID #FY 2011-2012-006: PUMP STATIONS REHABILITATION REPAIRS AND INSTALALTION FOR PUMP NUMBERS #4, #12 & #13.**

The Bidder also agrees to furnish the required Performance and Payment guaranty for not less than the total bid price, and to furnish the required Certificate(s) of Insurance.

The undersigned further agrees that the Bid Guaranty accompanying the bid shall be forfeited if he fails to execute said Contract, or fails to furnish the required Performance and Payment guaranty or fails to furnish the required Certificate(s) of Insurance within 5 calendar days after being notified of the award of the Contract.

In the event of arithmetical errors, the Bidder agrees that these errors are errors which may be corrected by the CITY. In the event of a discrepancy between the price bid in figures and the price bid in words, the price in words shall govern. Bidder agrees that any unit price listed in the bid is to be multiplied by the stated quantity requirements in order to arrive at the total.

The Bidder certifies that no principals or corporate officers of the firm were principals or corporate officers in another firm at the time such other firm was suspended within the last two years from doing business with CITY; except as stated below:

Acknowledgement is hereby made of the following addenda (identified by number) received since issuance of the Bid project document:

ADDENDUM NUMBER:	DATE ISSUED:

Attached is a Bid Bond for the sum of _____
 _____ Dollars (\$ _____).

The Bidder shall acknowledge this bid by signing and completing the spaces provided below.

Name of Bidder:	
Address:	
City:	
State:	
Zip Code:	
Type or Print Authorized Person Name:	
Telephone Number:	
Email Address:	
Social Security # (or) Federal ID #:	
Bradstreet No.: (if applicable)	

If a partnership, name and addresses of partners:

(Sign below if not incorporated)

(Type or Print Name of Bidder)

WITNESSES:

(Signature)

(Type or Print Name of Signed Above)

(Sign below if incorporated)

(Type or Print Name of Corporation)

ATTEST:

Secretary

(Signature and Title)

(CORPORATE SEAL)

(Type or Print Name Signed Above)

Incorporated under the laws of the State of: _____

**SCHEDULE OF BIDDER'S PRICE
FOR PUMP STATION #4; #12 AND #13
PROJECT A THROUGH C
VENDOR SHALL HOLD THE UNIT BID PRICES FIRM THROUGHOUT
THE CONTRACT PERIOD**

ITEM	PROJECT [A] PUMP STATION #4 DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE
1	Mobilization	LS	1		
2	Myers Model 6VC200M4-43 Pump	EA	2		
3	Duplex Control Panel	EA	1		
4	Heavy Duty Floatholder & 4 S50NO Floats Assembly	EA	1		
5	U.S. Foundry type APD300 48"x72" Double Door (Angle Frame, Pedestrian Loading Aluminum)	EA	1		
6	8" Ductile Iron Pipe	LF	35		
7	12" Ductile Iron Pipe	LF	15		
8	8" Flanged Swing Check Valve	EA	2		
9	6" Flanged Plug Valve	EA	1		
10	8" Flanged Plug Valve	EA	2		
11	12" Flanged Plug Valve	EA	1		
12	2" Air Release valve Assembly	EA	1		
13	8"x6" 90° Ductile Iron Flanged Reducing Bend with Base under Large End 5-702 LE	EA	2		
14	8" 90° Ductile Iron Flange Bend	EA	2		
15	12" 90° Ductile Iron Flanged Bend	EA	1		
16	12"x8" Ductile Iron Flange Reducing on Branch Tee	EA	1		
17	12" 90° Ductile Iron Mechanical Restrained Joint Bend	EA	1		
18	12" 45° Ductile Iron Mechanical Restrained Joint Bend	EA	2		
19	6" Camlock Quick Coupling	EA	1		
20	12"x6" Ductile Iron mechanical restrained joint tee	EA	1		

21	1" Float Conduit	LF	97		
22	2" Electrical Conduit	LF	30		
23	Reinforced Concrete	SY	9		
24	Pipe Support Cradle	EA	2		
25	6" Vent. Pipe with Screen Assembly	EA	1		
26	Maintenance of Traffic	LS	1		
27	Restoration of Hedges	LF	60		
28	Restoration	LS	1		
29	Demolishing Dry Well w/ Removal of Concrete Entrance Tube & Concrete Steps	LS	1		
30	Wet Well Coating & Patching	LS	1		
31	12" x 8" Ductile Iron Flanged Bend	EA	1		
32	(*) Cost for Compliance with Trench Safety Act – F.S. 553.60 thru 553.64, if any	LS	1		
33	(**)Cost for Compliance with Special Shoring requirements per F.S. 553.50 thru 553.64, if any	LS	1		
34	Permit fees	LS	1	\$1000.00	\$1000.00
	SUB-TOTAL PROJECT [A] PUMP STATION #4				
	PROJECT [B] PUMP STATION #12 DESCRIPTION				
35	Mobilization	LS	1		
36	Myers Model 6VC200M4-43 Pump	EA	2		
37	Duplex Control Panel Rated	EA	1		
38	Heavy Duty Floatholder & 4 S50NO Floats Assembly	EA	1		
39	U.S. Foundry type APD300 48"x72" Double Door (Angle Frame, Pedestrian Loading Aluminum)	EA	1		
40	8" Ductile Iron Pipe	LF	50		
41	12" Ductile Iron Pipe	LF	20		
42	8" Flanged Swing Check Valve	EA	2		

43	6" Flanged Plug Valve	EA	1		
44	8" Flanged Plug Valve	EA	2		
45	12" Flanged Plug Valve	EA	1		
46	2" Air Release valve Assembly	EA	1		
47	8"x6" 90° Ductile Iron Flanged Reducing Bend with Base under Large End 5-702 LE	EA	2		
48	8" 90° Ductile Iron Flange Bend	EA	2		
49	12" 90° Ductile Iron Flanged Bend	EA	1		
50	12"x8" Ductile Iron Flange Reducing on Branch Tee	EA	2		
51	12" 11 1/4° Ductile iron Mechanical Restrained Joint Bend	EA	2		
52	12" 45° Ductile Iron Mechanical Restrained Joint Bend	EA	4		
53	12"x6" Ductile Iron Flanged Reducer	EA	1		
54	6" Camlock Quick Coupling	EA	1		
55	1" Float Conduit	LF	135		
56	2" Electrical Conduit	LF	50		
57	Reinforced Concrete	CY	3.5		
58	6' high Chain Link Fence	LF	85		
59	Pipe Support Cradle	EA	2		
60	Demolition of Existing Dry Well & Existing 18" Pipe	LS	1		
61	Restoration	LS	1		
62	Wet Well Coating & Patching	LS	1		
63	Maintenance of Traffic	LS	1		
64	(*) Cost for Compliance with Trench Safety Act – F.S. 553.60 thru 553.64, if any	LS	1		
65	(**)Cost for Compliance with Special Shoring requirements per F.S. 553.50 thru 553.64, if any	LS	1		
66	Permit fees	LS	1	\$1000.00	\$1000.00
	SUB-TOTAL PROJECT [B] PUMP STATION #12				

PROJECT [C]					
PUMP STATION #13					
DESCRIPTION					
67	Mobilization	LS	1		
68	Myers Model 6VC300M4-43 Pump	EA	2		
69	Duplex Control Panel	EA	1		
70	Heavy Duty Floatholder & 4 S50NO Floats Assembly	EA	1		
71	U.S. Foundry type APD300 48"x72" Double Door (Angle Frame, Pedestrian Loading Aluminum)	EA	1		
72	8" Ductile Iron Pipe	LF	60		
73	12" Ductile Iron Pipe	LF	68		
74	8" Flanged Swing Check Valve	EA	2		
75	6" Flanged Plug Valve	EA	1		
76	8" Flanged Plug Valve	EA	2		
77	12" Flanged Plug Valve	EA	1		
78	2" Air Release valve Assembly	EA	1		
79	8"x6" 90° Ductile Iron Flanged Reducing Bend with Base under Large End 5-702 LE	EA	2		
80	8" 90° Ductile Iron Flange Bend	EA	2		
81	12" 90° Ductile Iron Flanged Bend	EA	1		
82	12"x8" Ductile Iron Flange Reducing on Branch Tee	EA	2		
83	12" 90° Ductile Iron Mechanical Restrained Joint Bend	EA	1		
84	12" 45° Ductile Iron Mechanical Restrained Joint Bend	EA	4		
85	6" Camlock Quick Coupling	EA	1		
86	12"x6" Ductile Iron Flanged Reducer	EA	1		
87	1" Float Conduit	LF	180		
88	2" Electrical Conduit	LF	35		
89	Reinforced Concrete	CY	3.5		
90	Pipe Support Cradle	EA	3		
91	Demolition	LS	1		
92	Restoration	LS	1		

93	Maintenance of Traffic	LS	1		
94	Wet Well Coating & Patching	LS	1		
95	(*) Cost for Compliance with Trench Safety Act – F.S. 553.60 thru 553.64, if any	LS	1		
96	(**)Cost for Compliance with Special Shoring requirements per F.S. 553.50 thru 553.64, if any	LS	1		
97	Permit fees	LS	1	\$1000.00	\$1000.00
	SUB-TOTAL PROJECT [C] PUMP STATIONS #13				

TOTAL FOR PROJECTS:

	TOTAL
FIRMS TO PROVIDE GRAND TOTAL FOR PROJECTS: A, B, AND C.	\$

BIDDER NOTE:

PROJECT A: PUMP STATION #4 - SWALE AND DRAINAGE IMPROVEMENTS:

- Line 32 (*) and Line 33 (**) vendor must complete only if applicable to this project and in accordance with F.S. 553.60 through F.S. 553.64

PROJECT B: PUMP STATION #12 - SWALE AND DRAINAGE IMPROVEMENTS:

- Line 64 (*) and Line 65 (**) vendor must complete only if applicable to this project and in accordance with F.S. 553.60 through F.S. 553.64

PROJECT C: PUMP STATION 13 - SWALE AND DRAINAGE IMPROVEMENTS:

- Line 95 (*) and Line 96 (**) vendor must complete only if applicable to this project and in accordance with F.S. 553.60 through F.S. 553.64

00310. BID BOND

FIVE (5%) BID BOND WILL BE INSERTED HERE.

00320. PUBLIC ENTITY CRIME FORM

[NOTICE TO BIDDERS](#)

SWORN STATEMENT PURSUANT TO SECTION 287.133(2) (a), FLORIDA STATUTES, PUBLIC ENTITY CRIME INFORMATION

“A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, 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 s. [287.017](#) for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.”

By: _____

Title: _____

Signed and Sealed _____ day of _____, 2012

**00400. SUPPLEMENT TO BID/TENDER FORM
(QUESTIONNAIRE SHOULD BE SUBMITTED WITH BID)**

QUESTIONNAIRE

The undersigned guarantees the truth and accuracy of all statements and the answers contained herein.

1.	How many years has your organization been in business as a Contractor?
2.	What is the last project of this nature that you have completed?
3.	Have you ever failed to complete the work awarded to you? If so, where and why?
4.	Provide three (3) references of projects of a similar size, scope and complexity that have been completed by your company with the last five (5) years. Provide the name of company/owner/business, contact name of individual and his role/title, address of the company, and telephone number.

5.	List the following information concerning all contracts in progress as of the date of submission of this bid. (In case of co-venture, list the information for all co-ventures).
----	--

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	% of Completion To Date

(Continue list on insert sheet, if necessary)

6.	Has the Bidder or his or her representative inspected the propose project and does the Bidder have a complete plan for its performance?
7.	Will you subcontract any part of this work? If so, give details including a list of each subcontractor(s) that will perform work in excess of ten percent (10%) of the contract amount and the work that will be performed by each such subcontractor(s).

The foregoing list of subcontractor(s) may not be amended after award of the contract without the prior written approval of the Contract Administrator, whose approval shall not be unreasonably withheld.

8.	What equipment do you own that is available for the work?
9.	What equipment will you purchase for the proposed work?
10.	What equipment will you rent for the proposed work?

11.	State the name of your proposed project manager and give details of his or her qualifications and experience in managing similar jobs.
12.	State the true, exact, correct and complete name of the partnership, corporation or trade name under which you do business and the address of the place of business. (If a corporation, state the name of the president and secretary. If a trade name, state the names of the individuals who do business under the trade name).
12.1	The correct name of the Bidder is
12.2	The business is a (Sole Proprietorship); (Partnership); (Corporation).
12.3	The address of principal place of business is
12.4	The names of the corporate officers, or partners, or individuals doing business under a trade name, are as follows:

12.5.	List all organizations which were predecessors to Bidder or in which the principals or officers of the Bidder were principals or officers.
12.6	List and describe all bankruptcy petitions (voluntary or involuntary) which have been filed by or against the Bidder, its parent or subsidiaries or predecessor organizations during the past five (5) years. Include in the description the disposition of each such petition.
12.7	List and describe all successful Performance or Payment Bond claims made to your surety(ies) during the last five (5) years. The list and descriptions should include claims against the bond of the Bidder and its predecessor organization(s).
12.8	List all claims, arbitrations, administrative hearings and lawsuits brought by or against the Bidder or its predecessor organization(s) during the last five (5) years. The list shall include all case names; case, arbitration or hearing identification number; the name of the project over which the dispute arose; and a description of the subject matter of the dispute.

12.9	List and describe all criminal proceedings or hearings concerning business related offenses in which the Bidder, its principals or officers or predecessor or organization(s) were defendants.
12.10	Has the Bidder, its principals, officers or predecessor organization(s) been debarred or suspended from bidding by any government during the last five (5) years? If yes, provide details.

00850. DRAWINGS & EXHIBITS INDEX

PAGE	INDEX	DESCRIPTION
1	N/A	Pump Station # 4 Improvement
2	N/A	Pump Station #12 Improvement
3	N/A	Pump Station #13 Improvement

00900. ADDENDA AND MODIFICATIONS:

If any addenda are issued, the City will attempt notify prospective Bidders. Addenda to this solicitation will be posted on the Division's webpage www.cohb.org/Bidnotifications. It is the Bidder's responsibility to check the website or contact the General Services/Purchasing Department prior to the proposal submittal deadline to ensure that the Bidder has a complete bid package.

TECHNICAL SPECIFICATIONS

SECTION 1: SCOPE OF WORK

The work included in these technical specifications and in this contract consists of rehabilitation of four (3) sewage lift stations for Pump Stations No. 4, No. 12 and Pump Station No. 13, to reduce risk to public health and environmental pollution. The work shall consist of, but not limited to, wet well cleaning, the discharge of piping, fittings, valves swing check valves, guide rails, pipe bracings, base ells, and/or mounting plates. See individual plan sheets for specific rehabilitation requirements for each lift station as shown on the plans and described in the specifications.

Proof that sufficient staff is available to provide the required services specified in the Bid.

Identify the name of the Project Manager for your firm that will be available to be reached during normal working hours, as well as, for after hours, weekends and emergencies.

The CONTRACTOR shall furnish all labor, all materials, equipment, tools, personnel, and incidentals, maintenance of traffic, mobilization and transportation which are necessary for the proper layout and completion of the work, as specified herein.

All work under this Contract shall be constructed in accordance with the lines and grades shown on the Contract Drawings or as directed by the Engineer. Elevations of existing ground, structures and appurtenances, size and location of existing piping are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the Engineer for interpretation or correction.

All survey work for construction control processes shall be made by the Contractor at his sole expense.

THE WORK INCLUDES BUT IS NOT LIMITED TO:

- Mobilization
- Ductile Iron Pipe
- Flanged Plug Valve
- Electric Conduit
- Reinforced Concrete
- Maintenance Traffic
- Restoration
- Air Release Valve Assembly

- Pipe Support Cradle
- Demolition of Existing Dry Well
- Shop Drawings

SECTION 2: CONTRACT AWARD:

This Bid consists of three (3) project parts for bidding: Project [A], Project [B], and Project [C]. The project which consists of scope of work to be completed in the consecutive order of completion of Project [A] through Project [C]. Contract Award will be to the lowest responsive bidder for the total sum of all three (3) projects A through C. The sequence of construction for the project will be determined at a later date.

SECTION 3: LOCATIONS:

All work under this contract is within the City of Hallandale Beach limits. Project addresses are referenced as Schedule of Prices are **within the area boundary between the intersection of SW 4th Avenue/SW 5th Street, Parkview Drive/Leslie Drive and SW 8th Street/SW 9th Avenue for Project [A] Pump Station #4; Project [B] Pump Station #12 and Project [C] Pump Station #13.**

SECTION 4: SUMMARY OF WORK

It is the intent of this section to provide a brief summary of the work to be performed under this contract.

The Contractor shall, except as otherwise specifically stated herein or in other applicable parts of the Contract Documents, provide and pay for all labor, materials equipment, tools, construction equipment, applicable taxes, other facilities and services necessary for the execution, testing and completion of the work under this Contract.

The Contractor shall provide their own horizontal and vertical control. Before construction is started, the Contractor shall make a video tape record of the work area and submit a copy to the Engineer.

Any part of the work which is not mentioned in the Specifications but is shown on the Drawings or any part of the work not shown on the Drawings but included in the Specifications, or items not specifically called out in the Contract Documents, which are necessary or normally required to make each installation satisfactory and legally operable, shall be performed by the Contractor as incidental work without extra cost to the City and the expense thereof shall be included in the applicable unit priced items or the lump sum items bid for the work.

4.01 CONTRACT DOCUMENTS

The Contract Documents include the Bidding Requirements, Contract Forms, Conditions of Contract, Specifications, Drawings, Addenda and all requirements and provisions incorporated therein by specific reference thereto. They are intended to be self explanatory and complimentary and to describe and provide for the complete work.

Bidders are required to familiarize themselves with the provisions of the Contract Documents and make available to prospective suppliers and subcontractors such information derived the reform as required for strict adherence thereto.

4.02 SPECIFICATIONS

The Specifications included in these Contract Documents establish the performance and quality requirements for materials and equipment and the minimum standards for the quality of workmanship and appearance. Generally, there has been no attempt to separate the Specification Sections into groups of work of separate subcontractors or for work to be performed by the various trades. Should there be any question as to the interpretation of any particular Specification Section or part thereof, such question will should be directed to the General Services/Purchasing Department, at:

General_Services_Office@hallandalebeachfl.gov. The City will attempt to notify prospective Bidders. Addenda to this solicitation will be posted on the Division's webpage www.cohb.org/Bidnotifications. It is the Bidder's responsibility to check the website or contact the General Services/Purchasing Department prior to the proposal submittal deadline to ensure that the Bidder has a complete bid package.

4.03 WORK SEQUENCE

Contractor shall provide the City Engineer with a work sequence at the pre-construction meeting, for the City Engineer's review and approval. The Contractor shall coordinate sequence of work with the City in order to cause as little disruption of service or interference with the public as is practical. The contractor shall maintain access by the public to homes and businesses and keep each pump station operational during construction.

4.04 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall maintain traffic movement along all roadways and maintain ingress/egress to all facilities.
- B. Contractor shall assume full responsibility for the protection and safekeeping of products under this contract, stored on the site.

4.05 SAFETY AND OSHA COMPLIANCE

- A. The Contractor shall comply in all respects with all Federal, State and Local safety and health regulations and as required by item 18 of Section 00100 of the City of Hallandale Beach Invitation to Bid “Instructions to Bidders”.

Copies of the Federal regulations may be obtained from the U.S. Department of Labor, Occupation Safety and Health Administration (OSHA), Washington, DC 20210 or their regional offices.

- B. The Contractor shall comply in all respects with the applicable Workman's Compensation Laws.
- C. The contractor is responsible for safety and providing a safe job site, including trench safety and complying with the Florida Trench Safety Act.

4.06 MAINTENANCE OF TRAFFIC, BID ITEM

Maintenance of Traffic – Traffic shall be maintained in accordance with Section 102 Maintenance of Traffic of FDOT SSR&BC and Section 14 of this contract specification. The Contractor shall submit two (2) copies of maintenance of traffic plan to the City Engineer for review.

The City may require the Contractor to call for and hire off duty Police Officers for directing traffic and maintaining safety if there is any way that the operations will curtail the use the streets, roadways and work areas specified herein. Payment for this item shall be on a lump sum basis.

4.07 VIDEO RECORD OF WORK AREA

The Contractor shall prepare a video of the pipeline route and work areas before construction is started. Plants, driveways, parking lots, mailboxes, and front view of homes on both sides of the street shall be included. The incidental cost of this task shall be included in the bid item for mobilization (Items No. 1), for each pump stations project A-C. No direct payment will be made for this activity.

4.08 RECORD DRAWINGS

The Contractor shall submit one set of prints marked up with any field changes. The size and location (horizontally and vertically) of the force main shall be indicated. Drawings shall be clear and drafted in a professional manner. The incidental cost of this task shall be included in the Bid Items. No direct payment will be made for this activity. (SUMMARY OF WORK) END OF SECTION FOUR

SECTION 5: SITE CONDITIONS:

5.01 GENERAL

The proposed work sites in the City of Hallandale Beach are relatively level and at an approximate elevation varying from approximately 5.7 to 11 feet. The Contractor is invited to visit the sites prior to submittal of his proposal to verify the existing conditions and evaluate the suitability for erection of the facilities.

The Contractor shall be responsible for all site preparation, improvements and restoration for the installation of the force main and all other facility work.

The work of this project is to Rehabilitate Pump Stations 4, 12 & 13 and to connect the force main under this contract to a working existing force main. The existing sewage pumping stations are to be kept in operation throughout the duration of the contract. The Contractor's actions may not interfere with the ability of these facilities to provide continuous, reliable service, except as specifically provided for in these Contractor Documents or as allowed by the City. Contractor shall provide temporary bypass pumps and connections as needed to maintain the continued operation of each station during rehabilitation.

5.02 SITE INVESTIGATION AND REPRESENTATION

The Contractor acknowledges that he has satisfied himself as to the nature and location of the Work, the general and local conditions, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads, uncertainties of weather or similar physical conditions of the ground, the character of equipment and facilities needed preliminary to and during execution of the work and all matters which in any way can affect the work or the cost thereof under this contract.

The Contractor further acknowledges that he has satisfied himself 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 Owner or included in these Contract Documents. Any failure by the Contractor to acquaint himself with all the available information will not relieve him from responsibility for properly estimating the difficulty or cost of successfully performing the work.

5.03 INFORMATION ON SITE CONDITIONS

All information obtained by the City regarding site conditions, topography, subsurface information, groundwater elevations, existing construction of site facilities as applicable and similar data will be available for inspection upon request. Such information is offered as supplementary information only.

The City does not assume any responsibility for the completeness or for the Contractor's interpretation of such supplementary information.

A. Bidder's Subsurface Investigation

Prospective bidders are invited, at their own expense, to make such additional subsurface investigation by boring or test pit excavation as may be desired, provided however, that such work be scheduled by appointment with the City Engineer.

B. Differing Subsurface Conditions

In the event subsurface or latent physical conditions are found materially different from those indicated in these Documents and differing materially from those ordinarily encountered and generally recognized as inherent in the character of work covered in these Contract Documents, the Contractor shall promptly and before such conditions are disturbed, notify the City Engineer in writing of such changed conditions.

The City Engineer will investigate such conditions promptly and following this investigation, the Contractor shall proceed with the work unless otherwise instructed by the City Engineer.

C. Existing Utilities

Known utilities and structures adjacent to or encountered in the work are shown on the drawings. The locations shown are taken from existing records and the best information available from existing utility plans; however, it is expected that there may be some discrepancies and omissions in the locations and quantities of utilities and structures shown.

Those shown are for the convenience of the Contractor only, and no responsibility is assumed by the City for their accuracy or completeness. Any additional costs incurred for idle time of equipment or labor as a result of uncovering unknown utilities shall be at the Contractor's cost.

D. Contractor's Responsibility For Utility, Properties And Service

Where the Contractor's operations could cause damage or inconvenience to railway, telegraph, fiber optic communications, telephone, television, power, oil, gas, storm drainage, water, sewer or irrigation systems, the Contractor shall make all arrangements necessary for the protection of these utilities and services.

The Contractor shall notify Sunshine State One-Call of Florida, Inc., 1-800-432-4770 to arrange for underground utility locations and mark out at least 48 hours prior to beginning and excavations or other underground work, as required by law.

The Contractor shall notify all utility officers that are affected by the construction operation at least forty eight (48) hours in advance. Under no circumstance shall any utilities be exposed without first notifying the appropriate agency. After the appropriate notice, the existing underground utilities may be located, exposed and temporary support of such utilities shall be provided.

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.

The City shall not be responsible for the Contractor for any damages as a result of the Contractor's failure to protect utilities encountered in the work.

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, the Contractor shall promptly notify the Owner of the utility and cooperate with the Owner in restoration of service as promptly as possible and bear all costs of repair.

In no event shall interruption of any utility service be allowed outside working hours unless granted by the Owner of the utility.

The Contractor shall replace, at his or her own expense, any and all other existing utilities or structures removed or damaged during construction, unless otherwise provided for in the Contract Documents.

E. Interfering Structures

The Contractor shall take necessary precautions to prevent damage to existing structures whether on the surface, aboveground or underground. The Contractor shall protect existing structures from damage. Where existing fences, gates, barns, sheds, buildings or any other structure must be removed to properly carry out the work or are damaged during the work, they shall be restored at the Contractor's expense to their original condition and to the satisfaction of the property owner.

Without additional compensation, the Contractor may remove and replace, in a condition as good as or better than original, any small structures such as fences, mailboxes and signposts that interfere with the Contractor's operations.

F. Field Relocations

During the progress of construction, it is expected that minor relocations of the work will be necessary. Such relocations shall be made only by direction of the City Engineer. If existing structures are encountered that will prevent construction as shown, notify the City Engineer before continuing with the work in order that the City Engineer may make such field revisions as necessary to avoid conflict with the existing structures.

If the Contractor fails to notify the City Engineer when an existing structure is encountered and proceeds with the work despite this interference, he shall do so at his own risk.

5.04 SURVEYS

Prior to commencing work, the Contractor shall satisfy himself as to the accuracy of all survey or existing site information as indicated on the drawings or specifications. Should the Contractor discover any errors, inaccuracies or omissions in the survey data, he shall immediately notify the Engineer. The commencing of any of the work by the Contractor shall be held as acceptance by him of the survey data, after which the Contractor shall have no claim against the Owner resulting from alleged errors, inaccuracies or omissions in the survey data.

**(SITE CONDITIONS)
END OF SECTION FIVE**

SECTION 6: CONTROL OF WORK

GENERAL

6.01 WORK PROGRESS

The Contractor shall construct the Work as shown on the Drawings and shall provide sufficient resources which will ensure the completion of the work within the time stipulated in the Proposal. If at any time such facilities appear to the City Engineer to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, he may request in writing the Contractor provide means to increase the facility's equipment, modify the amount or type of

resource and the Contractor shall conform to such order. Failure of the Engineer to give such order shall no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required, nor for the timely completion of the Work.

6.02 PRIVATE LAND

The Contractor shall not enter or occupy private land outside of easements or right-of-ways, except by written permission of the property owner.

6.03 WORK LOCATIONS

Work shall be located substantially as indicated on the Drawings, but the City Engineer reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing utilities, structures or for other reasons. Where facilities are noted on the Drawings, such notation is for the Contractor's convenience and does not relieve him from laying and jointing different or additional fittings and/or appurtenances as required.

6.04 OPEN EXCAVATIONS

- A. All open excavations shall be adequately safeguarded by the Contractor at his own expense, providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The length of open trench will be controlled by the particular surrounding conditions, but shall always be confined to limits, which minimize interference with, and danger to the public and existing facilities.
- B. The Contractor shall take precautions to prevent injury to the public due to open trenches.

6.05 TEST PITS

Test pits for the purpose of locating all known and unknown underground utilities or structures sufficiently in advance of the construction shall be excavated and backfilled by the Contractor so as not to create a hazardous area. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the City.

6.06 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property, and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the

Contractor, at his expense, to a condition equal to or better than existing before the damage was done, or he shall make good the damage in other manner acceptable to the Engineer.

- B. All sidewalks that are disturbed by the Contractor's operations shall be restored to their original condition by the use of similar or better materials. All curbing shall be restored in a condition equal to the original construction and in accordance with the City of Hallandale Beach Engineering Standards.
- C. Along the location of this work all fences, walks, bushes, trees, shrubbery, and other physical features shall be protected and restored in a thoroughly workmanlike manner. Fences and other features removed by the Contractor shall be replaced in the location indicated by the City Engineer as soon as conditions permit. All grassy areas beyond the limits of construction, which have been damaged by the Contractor, shall be re-graded and sodded.
- D. Trees close to the work shall be boxed or otherwise protected against injury. The Contractor shall trim all branches that are liable to damage because of his operations, but in no case shall any tree be cut or removed without prior notification of the tree warden. All injuries to bark, trunk, limbs, and roots of trees shall be repaired by dressing, cutting, and painting according to approved methods, using only approved tools and materials.
- E. The protection, removal and replacement of existing physical features along the line of work shall be part of the work under the Contract, and all costs in connection therewith shall be included in the unit and/or lump sum prices established under the items in the Table of Unit Prices Form.

6.07 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

- A. The Contractor shall assume full responsibility for the protection of all buildings, structures and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains, and electric and telephone cables, whether or not they are shown on the Drawings. The Contractor shall carefully support and protect all such structures and utilities from injury of any kind. Any damage resulting from the Contractor's operations shall be repaired by him at his expense.
- B. The Contractor shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing pressure mains, water services, drain lines and sewers). Services to the building shall be maintained and all costs or charges resulting from damage thereto shall be paid by the Contractor.

- C. If additional permanent relocation of a utility owned by the City is required, he may direct the Contractor, in writing to perform the work. Work so ordered will be paid for at the contract unit prices, if applicable, or as extra work under the General Conditions. If relocation of a privately-owned utility is required, the City will notify the Utility to perform the work as expeditiously as possible. The Contractor shall fully cooperate with the City and Utility, and shall have no claim for delay due to such relocation. The Contractor shall notify public utility companies, in writing, at least 48 hours (excluding Saturdays, Sundays and legal holidays) before excavating in any public way.

6.08 DISTRIBUTION SYSTEMS AND SERVICES

- A. The Contractor shall not interrupt water, telephone, cable TV, sewer, gas, or other related utility services and disrupt the normal functioning of the system as little as possible. Contractor shall notify Engineer well in advance of any requirement for dewatering, isolating, or relocating a section of a utility, so that necessary arrangements may be made with the appropriate agency.
- B. If it appears that the utility service will be interrupted for an extended period, the City Engineer may order the Contractor to provide temporary service lines. Inconvenience of the users shall be the minimum, consistent with the existing conditions. The safety and integrity of the system is of prime importance in scheduling work.

6.09 PROTECTION OF CONSTRUCTION AND EQUIPMENT

- A. All newly constructed work shall be carefully protected from injury in any way.

No wheeling or walking or placing of heavy loads on it shall be allowed and all portions injured shall be reconstructed by the Contractor at his own expense.
- B. All structures shall be protected in a manner approved by the Engineer. Should any of the floors or other parts of the structures become heaved, cracked, or otherwise damaged, all such damaged portions of the work shall be completely repaired or replace and made good by the Contractor at his own expense and to the satisfaction of the City Engineer. If, in the final inspection of the Work, any defects, faults, or omissions are found, the Contractor shall cause the same to be repaired or removed and replaced by proper materials and workmanship without extra compensation for the materials and labor required. Further, the Contractor shall be fully responsible for the satisfactory maintenance and repair of the construction and other work undertaken herein, for at least the guarantee period described in the Contract.

- C. Further, the contractor shall take all necessary precautions to prevent damage to any structure due to water pressure during and after construction and until such structure is accepted and taken over by the City.
- D. Protection of excavated material, no dirt will be allowed in storm drains or gutters.

6.10 WATER FOR CONSTRUCTION PURPOSES

- A. In locations where public water supply is available, the Contractor may purchase metered City water for construction purposes, at applicable rates.
- B. The express approval of the City's Water Department shall be obtained before water is used.
- C. City potable water used during this project can be metered thru a hydrant meter. There is a \$ 650 deposit required for the use of a hydrant meter. The Contractor shall pay for all water consumed at the standard rate.

6.11 MAINTENANCE OF FLOW

The Contractor shall, at his own cost, provide for the flow of sewers, drains, and water courses interrupted during the progress of the work, and shall immediately cart away and remove all offensive matter. The entire procedure of maintaining existing flow shall be fully discussed with the Engineer well in advance of the interruption of any flow.

6.12 CLEAN UP /DUST CONTROL

- A. During the course of the work, the Contractor shall keep the site of his or her operations in as clean and neat a condition as possible. At the end of each and every work day, the Contractor shall dispose of all residue resulting from the construction work and, during the course of work, he or she shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures, and any other refuse resulting from the construction operation, and shall leave the entire site of the work in a neat and orderly condition on a continual basis.
- B. It shall be the Contractor's responsibility to control dust by watering and sweeping at the end of each and every work day. The water shall be paid for by the Contractor. Should the Contractor fail to control dust to the City Engineer's satisfaction, the City shall control the dust by whatever means necessary and the Contractor shall pay all expenses of that effort incurred by the City to control the dust.

6.13 STREET CLOSURES

Street closures shall be allowed only when the requirements of Section 14 have been met.

6.14 MAINTENANCE OF ACCESS

Portions of the work are located in developed areas requiring the access for Fire, Police and EMS Ambulance Units, and other departments to be provided for and at least one free lane be available for all emergency traffic. Contractors are to arrange operations in these areas to meet these requirements and secure approval of operating procedures from the Owner.

**(CONTROL OF WORK)
END OF SECTION SIX**

SECTION 7: PROJECT COORDINATION

GENERAL

7.01 REQUIREMENTS INCLUDED

- A. City Staff will coordinate the work between City and Contractor as required.
- B. The Contractor shall:
 - 1. Coordinate work of his or her employees and subcontractors.
 - 2. Expedite his work to assure compliance with schedules.
 - 3. Coordinate his work with that of other Contractors and work by the City.
 - 4. Comply with orders and instructions of the City Engineer.

7.02 RELATED REQUIREMENTS

- A. Section 1 and Section 4: Summary of Work
- B. Section 10: Project Meetings
- C. Section 11: Construction Schedules
- D. Section 12: Shop Drawings, Product Data and Samples

7.03 CONSTRUCTION ORGANIZATION AND START-UP

- A. Engineer shall establish on-site lines of authority and communications:
 - 1. Schedule and conduct pre-construction meeting and progress meetings.
 - 2. Establish procedures for:
 - a. Submittals
 - b. Reports and records
 - c. Recommendations
 - d. Coordination of drawings
 - e. Schedules
 - f. Resolution of conflicts
 - 3. Interpret Contract Documents - Transmit written interpretations to Prime Contractor, and to other concerned parties.
 - 4. Assist in Obtaining Permits and Approvals- Verify that contractors and subcontractors have obtained inspections for work.
 - 5. Control the Use of Site – Allocate space and time for each Prime Contractor’s use of work and storage areas.
 - 6. Inspection and testing:
 - a. Inspect work to assure performance in accord with requirements of contract documents.
 - b. Administer special testing and inspections of suspect work.
 - c. Reject work which does not comply with requirements of contract documents.
 - d. Coordinate testing laboratory services:
 - 1. Verify that required laboratory personnel are present.
 - 2. Verify that tests are made in accordance with specified standards.
 - 3. Review test reports for compliance with specified criteria.
 - 4. Recommend and administer any required re-testing.

7.04 CONTRACTOR'S DUTIES

- A. Construction Schedules:
 - 1. Prepare a detailed schedule of basic operations.
 - 2. Monitor schedules as work progresses:
 - a. Identify potential variances between scheduled and probable completion dates for each phase.
 - b. Recommend to the City adjustments in schedule to meet required completion dates.
 - c. Any changes to the schedule are to be submitted to the City for review and approval.
 - 3. Observe work of each subcontractor to monitor compliance with schedule.
 - a. Verify that labor and equipment are adequate for the work and the schedule.
 - b. Verify that product procurement schedules are adequate.
 - c. Verify that product deliveries are adequate to maintain schedule.
 - d. Report noncompliance to Engineer, with recommendation for changes.

- B. Process Shop Drawings, Product Data and Samples:
 - 1. Prior to submittal to City Engineer, review for compliance with contract documents:
 - a. Field dimensions and clearance dimensions.
 - b. Relation to available space.
 - c. Effect of any changes on the work of any subcontractor.

- C. Maintain Reports and Records at job site, available to the City.
 - 1. Daily log of progress of work.
 - 2. Records
 - a. Contracts
 - b. Purchase orders
 - c. Materials and equipment records
 - d. Applicable handbooks, codes and standards

3. Maintain file of record documents.

7.05 CONTRACTOR'S CLOSE-OUT DUTIES

- A. At completion of work, conduct an inspection to assure that:
 1. Specified cleaning has been accomplished.
 2. Temporary facilities have been removed from site.
 3. Submit to the City written notice of beginning of warranty period for equipment put into service.
- B. Substantial Completion:
 1. Conduct an inspection to develop a list of Work to be completed or corrected.
 2. Assist Engineer in inspection.
 3. Supervise correction and completion of work of subcontractors.

PROJECT CLOSEOUT

7.06 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.
- B. Submit results of all tests.
- C. Complete all punch list items.
- D. When Contractor considers work has reached final completion, submit written certification that Contract Documents have been reviewed, work has been inspected and that work is complete in accordance with Contract Documents and ready for City Engineer's final inspection.
- E. In addition to submittals required by the conditions of the Contract, provide testing and submittals required by governing authorities and regulatory agencies, and submit a final statement of accounting giving total adjusted contract sum, previous payments and sum remaining due.
- F. Submit as-built record drawings for approval.

7.07 FINAL CLEANING

- A. Execute prior to final inspection.
- B. Clean site; sweep paved areas, rake clean other surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from the project and from the site.
- D. Clean adjacent drainage facilities of construction debris or sediments.

7.08 OPERATION AND MAINTENANCE DATA

Submit four (4) copies operating and maintenance information.

7.09 SYSTEMS DEMONSTRATION

Prior to final inspection, demonstrate operation of each system to Engineer and Owner.

7.10 RELEASE OF LIENS

Provide a release of lien from all subcontractors and materials suppliers including General Contractor's release of lien.

**(PROJECT COORDINATION)
END OF SECTION SEVEN**

SECTION 8: FIELD ENGINEERING

GENERAL

8.01 REQUIREMENTS INCLUDED

Provide and pay for field engineering services required for the project.

- 1. Survey work required in execution of project.

8.02 QUALIFICATIONS OF SURVEYOR OR ENGINEER

Firm must be Qualified Engineer or Registered Land Surveyor, Licensed in Florida, acceptable to Contractor and the City.

8.03 PROJECT SURVEY REQUIREMENTS

- A. Establish lines and levels, locate and layout, by instrumentation and similar appropriate means:
 - 1. Site improvements
 - a. Stakes for grading, fill and topsoil placement.
 - b. Utility slopes and invert or centerline elevations.
- B. From time to time, verify layouts by same methods.
- C. Locate and mark all known underground utilities prior to entrance of any equipment on the site. All such utilities shall be protected from heavy traffic. Establish and maintain barricades around all manholes, drains, and similar underground items. Immediately notify the owner of any conflict between operations and any in ground item to remain.
- D. Establish a minimum of two (2) permanent bench marks referenced to data established by survey control points and record location with horizontal and vertical data on record documents.

8.04 RECORDS

Maintain a complete, accurate log of all control and survey work as it progresses.

8.05 SUBMITTALS

Submit certificate signed by Registered Land Surveyor certifying that elevations and locations of improvements are in conformance, or non-conformance, with Contract Documents.

**(FIELD ENGINEERING)
END OF SECTION EIGHT**

SECTION 9: REFERENCE STANDARDS

GENERAL

9.01 REQUIREMENTS INCLUDED

Abbreviation and acronyms used in Contract Documents to identify reference standards.

9.02 QUALITY ASSURANCE

- A. Application: When a standard is specified by reference, comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or applicable codes establish stricter standards.
- B. Publication Date: The publication in effect on the date of issue of Contract Documents, except when a specific publication date is specified.

9.03 ABBREVIATIONS, NAMES, AND ADDRESSES OF ORGANIZATIONS

Obtain copies of referenced standards direct from publication source, when needed for proper performance of Work, or when required for submittal by Contract Documents.

AA	Aluminum Association 818 Connecticut Avenue, N.W. Washington, DC 20006
AABC	Associated Air Balance Council 1000 Vermont Avenue, N.W. Washington, DC 20005
AASHTO	American Association of State Highway & Transportation Officials 444 North Capitol Street, N.W. Washington, DC 20001
ACI	American Concrete Institute Box 19150 Redford Station Detroit, MI 48219
AI	Asphalt Institute Asphalt Institute Building College Park, MD 20740
AISC	American Institute of Steel Construction 1221 Avenue of the Americas New York, NY 10020

AISI	American Iron and Steel Institute 1000 16th Street, N.W. Washington, DC 20036
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ASPA	American Sod Producers Association Association Building Ninth and Minnesota Hastings, NE 68901
ASTM	American Society of Testing & Materials 1916 Race Street Philadelphia, PA 19103
AWWA	American Water Works Association 6666 W. Quincy Avenue Denver, CO 80235
AWPA	American Wood-Preserver's Association 7735 Old Georgetown Road Bethesda, MD 20014
AWS	American Welding Society 2501 NW 7th Street Miami, FL 33125
CDA	Cooper Development Association 57th Floor, Chrysler Building 405 Lexington Avenue New York, NY 10017
CII	Chlorine Institute, Inc. 2001 L Street, N.W., Suite 506 Washington, D.C. 20036
CLFMI	Chain Link Fence Manufacturers Institute 1101 Connecticut Avenue Washington, DC 20036
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle Street, Suite 2110 Chicago, IL 60601
MF	Factory Mutual System 1151 Boston-Providence Turnpike Norwood, MA 02062

FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) Washington Navy Yard, Bldg. 197 Washington, DC 20407
NEMA	National Electrical Manufacturer's Association 2101 L Street, N.W. Washington, DC 20037
NFPA	National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210
NFPA	National Forest Products Association 1619 Massachusetts Avenue, N.W. Washington, DC 20036
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 20076
PCI	Prestressed Concrete Institute 20 North Wacker Drive Chicago, IL 60606
PS	Product Standard U.S. Department of Commerce Washington, DC 20203
TAS	Technical Aid Series Construction Specifications Institute 1150 Seventeenth Street, N.W. Washington, DC 20036
UL	Underwriter's Laboratories, Inc. 333 Pfingston Road Northbrook, IL 60062

**(REFERENCE STANDARDS)
END OF SECTION NINE**

SECTION 10: PROJECT MEETINGS

GENERAL

10.01 REQUIREMENTS INCLUDED

- A. The City shall schedule and administer pre-construction meeting, periodic progress meetings, and specially called meetings throughout progress of the work. The City shall:
 - 1. Prepare agenda for meetings.
 - 2. Distribute written notice of each meeting four days in advance of meeting date.
 - 3. Record the minutes; include significant proceedings and decisions.
 - 4. Reproduce and distribute copies of minutes after each meeting.
 - a. To participants in the meeting.
 - b. To parties affected by decisions made at the meeting.
- B. Representatives of Contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

10.02 RELATED REQUIREMENTS

- A. Section 7: Project Coordination
- B. Section 11: Construction Schedules
- C. Section 12: Shop Drawings, Product Data and Samples

10.03 PRE-CONSTRUCTION MEETING

- A. Pre-Construction Meeting to be Schedule within 20 days after the Project Initiation Date.
- B. Location: A central site, convenient for all parties, designated by the City or the appropriate jobsite location.
- C. Suggested Agenda:
 - 1. Distribution and discussion of:
 - a. List of major subcontractors and suppliers.
 - b. Projected construction schedules.

2. Critical work sequencing.
3. Major equipment deliveries and priorities.
4. Project coordination.
 - a. Designation of responsible personnel.
5. Procedures and processing of:
 - a. Field decisions
 - b. Proposal requests
 - c. Submittals
 - d. Change Orders
 - e. Applications for payment
6. Adequacy for distribution of Contract Documents
7. Procedures for maintaining record documents
8. Use of premises:
 - a. Office, work and storage areas
 - b. Owner's requirements
9. Construction facilities, controls and construction aids
10. Temporary utilities
11. Safety and first-aid procedures
12. Security procedures
13. Housekeeping procedures
14. Miscellaneous

10.04 PROGRESS MEETINGS

- A. Schedule regular periodic meetings, as required.
- B. Hold called meetings as required by progress of the work.
- C. Attendance:
 1. Engineer, and his professional consultants as needed.
 2. Subcontractors as appropriate to the agenda.
 3. Suppliers as appropriate to the agenda.
 4. Others

D. Suggested Agenda:

1. Review of work progress since previous meeting.
3. Field observations, problems, conflicts.
4. Problems which impede construction schedule.
5. Review of off-site fabrication, delivery schedules.
6. Corrective measures and procedures to regain projected schedule.
7. Revisions to construction schedule.
8. Progress, schedule, during succeeding work period.
9. Coordination of schedules.
10. Review of submittal schedules; expedite as required.
11. Maintenance of quality standards.
12. Pending changes and substitutions.
13. Review proposed changes for:
 - a. Effect on construction schedule and on completion date.
 - b. Effect on other contracts relating to the project.
14. Review of record drawings
15. Other business

**(PROJECT MEETINGS)
END OF SECTION TEN**

SECTION 11: CONSTRUCTION SCHEDULES

GENERAL

11.01 REQUIREMENTS INCLUDED

- A. Submit revised progress schedules to maintain proposed schedule within five (5) business days after the earlier of the Notice to Proceed or the Project Initiation Date and as needed by changing conditions or emerging circumstances. Additionally, submit a revised schedule within five (5) business days after receipt of comments to the preliminary schedule prior to and/or at the Pre-construction Meeting, responding to all comments.

11.02 RELATED REQUIREMENTS

- A. Conditions of the Contract
- B. Section 1 and Section 4: Summary of Work
- C. Section 7: Project Coordination
- D. Section 10: Project Meetings
- E. Section 12: Shop Drawings, Product Data and Samples

11.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of:
 - 1. Horizontal bar chart
 - 2. Network analysis system
 - 3. Other method accepted by Owner
- B. Format of listings: The chronological order of the start of each item of work.

11.04 CONTENT OF SCHEDULES

- A. Construction progress schedule:
 - 1. Show the complete sequence of construction by activity.
 - 2. Show the dates for the beginning, and completion of each major element of construction.
- B. Submittals, schedule for shop drawings, product data and samples. Show:
 - 1. The dates for Contractor's submittals.
 - 2. The dates approved submittals will be required from the Engineer.
- C. Provide sub-schedules to define critical portions of prime schedules.

**(CONSTRUCTION SCHEDULES)
END OF SECTION ELEVEN**

SECTION 12: SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

GENERAL

12.01 SCOPE OF WORK

- A. Submit Shop Drawings, Product Data and Samples required by Contract Documents or for any material or equipment which is required but not specified in the Contract or which is not the exact make and model specified in the Contract.

- B. Provide installation sketches showing dimensions, pipe and fittings needed to install pump assembly in sufficient detail and quality to allow the City Engineer to properly review the submittal.

12.02 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner. Details shall be identified by reference to sheet, detail or schedule.
- B. Minimum sheet size: 8½" x 11".

12.03 PRODUCT DATA AND INSTALLATION SKETCHES

- A. Preparation:
 - 1. Clearly mark each copy to identify pertinent products or models.
 - 2. Show performance characteristics.
 - 3. Show dimensions and clearances required.
 - 4. Show sketches showing dimensions, pipe and fittings for pump connections.
- B. Manufacturer's standard schematic drawings and diagrams:
 - 1. Modify drawings and diagrams by deleting information, which is not applicable to the work.
 - 2. Supplement standard information to provide information specifically applicable to the work.

12.04 CONTRACTOR RESPONSIBILITIES

- A. Review shop drawings, product data and samples prior to submission.
- B. Determine and verify:
 - 1. Field measurements
 - 2. Field construction criteria
 - 3. Catalog numbers and similar data
 - 4. Conformance with specifications
- C. Coordinate each submittal with the requirements of the work and of the Contract Documents.
- D. Notify the City in writing, at the time of submission, of any deviations in the submittals from the requirements of the Contract Documents.

- E. Begin no fabrication or work, which requires approved submittals until the return of the approved submittals by the City.
- F. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the City at least seven working days prior to release for manufacture.

12.05 SUBMISSION REQUIREMENTS

- A. The Contractor shall make submittals in such sequence as to cause no delay in the work.
- B. Number of submittals required:
 - 1. Shop Drawings: Submit six (6) opaque reproductions.
 - 2. Product Data: Submit the number of copies which the Contractor requires, plus three which will be retained by the City, but no more than eight totals.
 - 3. Samples: Submit the quantity stated in each specification section.
- C. Submittals shall contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The project title and number.
 - 3. Contract identification.
 - 4. The names of:
 - a. Contractor
 - b. Supplier
 - c. Manufacturer
 - 5. Identification of the product, with the specification section number.
 - 6. Field dimensions, clearly identified as such.
 - 7. Relation to adjacent or critical features of the work or materials.
 - 8. Applicable standards, such as ASTM or Federal Specification numbers.
 - 9. Identification of deviations from Contract Documents.
 - 10. Identification of revisions on resubmittals.
 - 11. An 8" x 3" blank space for Contractor and Engineer stamps.
 - 12. Contractor's stamp initialed or signed, certifying to review of submittal, along with verification of products, field measurements and field construction criteria and coordination of the information within the submittal with requirements of the Work and of Contract Documents. Stamp shall be no smaller than 12" x 3" or larger than 2" x 32".

- D. Facsimiles or copies of facsimiles will not be accepted as shop drawing submittals without prior approval of the Engineer.
- E. Requests for Information (RFI) shall be submitted on a standard form provided by the City Engineer. RFIs shall indicate their importance to the timely completion of the project. RFIs will be processed as a shop drawing unless there is an urgent need for immediate response.
- F. Partial submittals may not be reviewed. The City Engineer will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor and will be considered as "not submitted" until resubmitted. The City Engineer may, at his option, provide a list or mark the submittal directing the Contractor to the areas that are incomplete.

12.06 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals noted by the Engineer and resubmit unless otherwise noted.
- B. Shop Drawings and Product Data:
 - 1. Revise initial drawings or data, and resubmit as specified for the initial submittal.
 - 2. Indicate any changes, which have been made other than those suggested by the Engineer by "clouding" the change and noting the revisions number alongside the cloud.
- C. Samples: Submit new samples as required for initial submittal.

**(SHOP DRAWINGS, PRODUCT DATA AND SAMPLES)
END OF SECTION TWELVE**

SECTION 13: BARRIERS

GENERAL

13.01 SCOPE OF WORK

The Contractor shall furnish, install and maintain suitable and sufficient barriers as required to protect the public, the Work, existing facilities, trees and plants. Remove the barriers when no longer needed, or at completion of Work.

PRODUCTS

13.02 MATERIALS, GENERAL

Materials may be new or used, suitable for the intended purpose, but must not violate the requirements of applicable codes and standards.

13.03 BARRIERS

Materials are Contractor's option as appropriate to serve required purpose.

EXECUTION

13.04 GENERAL

- A. Install facilities of a neat and reasonably uniform appearance, structurally adequate for the required purposes.
- B. Maintain barriers during entire construction period.
- C. Relocate barriers as required by the progress of construction.

13.05 FENCES

- A. Provide and maintain fences (minimum 6' high) necessary to assure security of the site during the contract time to keep unauthorized people and animals from the site when construction is not in progress.
- B. Provide additional security measures as deemed necessary and approved by the Engineer and/or the Owner.
- C. Fence shall be No. 11 gauge, 2" mesh, galvanized chain-link fabric.

13.06 TREE AND PLANT PROTECTION

- A. Preserve and protect existing trees and plants which are designated to remain.
- B. Consult with the City Engineer, and remove agreed on roots and branches which interfere with construction.
- C. Protect root zones of trees and plants:
 - 1. Do not allow vehicular traffic or parking.
 - 2. Do not store materials or products.
 - 3. Prevent dumping of refuse or chemically injurious materials or liquids.
 - 4. Prevent puddling or continuous running water.

- D. Carefully supervise excavating, grading and filling, and other construction operations, to prevent damage.
- E. Replace trees and plants designated to remain which are damaged or destroyed due to construction operations.

13.07 REMOVAL

- A. Completely remove barricades, including foundations, when construction has progressed to the point that they are no longer needed and when approved by the City Engineer.
- B. Repair damage caused by construction. Fill and grade areas of the site to the required elevations.
- C. Perform thorough clean-up of the site and adjacent areas of all traces of the Contractor's presence.

**(BARRIERS)
END OF SECTION THIRTEEN**

SECTION 14: TRAFFIC REGULATION

GENERAL

14.01 REQUIREMENTS INCLUDED

- A. Provide maintenance of traffic plan to the City Engineer for review and approval by permitting agencies and the City's Police and Fire Departments.
- B. Provide, operate and maintain equipment, services and personnel, with traffic control and protective devices, as required to expedite vehicular traffic flow around the construction area. Conform to the Broward County and FDOT permit requirements.
- C. Remove temporary equipment and facilities when no longer required, restore grounds to original, or to specified conditions, including striping.
- D. Maintain safe passageway for pedestrian traffic. Conform to Broward County "Maintenance of Traffic School/Pedestrian" requirements.
- E. The Contractor shall provide notification to the City Engineer and the City's Police and Fire Departments of any street closures at least 48 hours in advance of such closure.

14.02 TRAFFIC SIGNALS AND SIGNS

- A. Provide and operate traffic control and directional signals required to direct and maintain an orderly flow of traffic in all areas under Contractor's control, or affected by Contractor's operations.

- B. Provide traffic control and directional signs, mounted on barricades or standard posts according to FDOT and MUTCD standards:
 - 1. At each change of direction of a roadway and at each crossroad.
 - 2. At detours.
 - 3. At parking areas.

14.04 FLAGGERS

Provide qualified and suitably equipped flaggers when construction operations encroach on traffic lanes, as required for regulation of traffic.

14.05 FLARES AND LIGHTS

- A. Provide flares and lights during periods of low visibility:
 - 1. To clearly delineate traffic lanes and to guide traffic.
 - 2. For use by flagmen in directing traffic.

- B. Provide illumination of critical traffic and parking areas.

14.06 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations.

- B. Monitor parking of construction personnel's private vehicles.
 - 1. Maintain free vehicular access to and through parking areas.
 - 2. Prohibit parking on or adjacent to access roads, or in non-designated areas.

14.07 HAUL ROUTES

- A. Consult with governing authorities; establish public thoroughfares which will be used as haul routes and site access.

- B. Confine construction traffic to designated haul routes.
- C. Provide traffic control at critical areas of haul routes to expedite traffic flow, to minimize interference with normal public traffic.

14.08 MAINTENANCE OF TRAFFIC

The Contractor shall submit four (4) copies of maintenance of traffic plan to the City Engineer for review. Measurement and payment shall be the lump sum bid price for complete maintenance of traffic.

EXECUTION

14.01 GENERAL POLICIES

The following policies apply to work in all right-of-ways:

- A. No maintenance of traffic lane closures is to be set-up until work begins. The MOT subcontractor cannot set up a lane closure in the morning for work to be performed later in the day.
- B. The permitting Contractor must remain on-site after construction work until the Maintenance of Traffic lane closures are removed from the highway or they must remove it themselves upon completion of work. The worksite cannot be abandoned with lanes closed while awaiting the MOT subcontractor to clean up.
- C. A 24 hour pager or service number of the person in responsible charge in which to contact during all times of roadway work and lane closures shall be included in the MOT plant package.
- D. The permit tee may be required to submit the names, addresses, active contracting license numbers, and the certified worksite safety supervisor's current certificate of all Contractors performing work on state roads upon request. Please be advised that failure to perform work as required by DOT standards may result in pursuance of legal matters against licensed contractors performing the work.
- E. Should the use of "Off Duty" Police officers be required, the Contractor shall coordinate with the City of Hallandale Beach Police Department.

**(TRAFFIC REGULATION)
END SECTION FOURTEEN**

SECTION 15: SUBSTITUTIONS AND PRODUCT OPTIONS

GENERAL

15.01 REQUIREMENTS INCLUDED

Furnish and install products specified, under options and conditions for substitutions stated in this section. All products must be preapproved by the City Engineer.

15.04 CONTRACTOR'S OPTIONS

- A. For products specified only by reference standard, select product meeting that standard, by any manufacturer.
- B. For products specified by naming several products or manufacturers, select any one of products and manufacturers named which complies with specifications.
- C. For products specified by naming only one or more products or manufacturers and stating "or equal", submit a request as for substitutions, for any product or manufacturer which is not specifically named.
- D. For products specified by naming only one or two product(s) and manufacturer(s) and where it states that this is a Sole Source or No Substitution item, there is no option and no substitution will be allowed without pre-bid qualification.

15.05 SUBSTITUTIONS AND PREQUALIFICATION OF SIMILAR METHODS

- A. Within a period of 10 days after Notice to Proceed with the contract, the City will consider formal requests from the Contractor for substitution of products in place of those specified.
 - 1. After end of that period, request will be considered only in case of product unavailability or other conditions beyond the control of Contractor.
- B. Submit separate request for each substitution. Support each request with:
 - 1. Complete data substantiating compliance of proposed substitution with requirements stated in contract documents:
 - a. Product identification, including manufacturer's name and address.

- b. Manufacturer's literature; identify:
 - 1) Product description
 - 2) Reference standards
 - 3) Performance and test data
 - c. Samples, as applicable
 - d. Name, phone number of contact persons and address of two or more similar projects on which product has been used. Date of each installation with contact references and quantities installed. Indicate scope and size of reference projects.
- 2. Itemized comparison of the proposed substitution with product specified; list significant variations.
 - 3. Data relating to changes in construction schedule.
 - 4. Any effect of substitution on separate contracts.
 - 5. List of changes required in other work or products.
 - 6. Accurate cost data comparing proposed substitution with product specified.
 - 7. Designation of required license fees or royalties.
 - 8. Designation of availability of maintenance services, sources of replacement materials.
- C. Substitutions will not be considered for acceptance when:
- 1. They are indicated or implied on shop drawings or product data submittals without a formal request from Contractor.
 - 2. They are requested directly by a subcontractor or supplier.
 - 3. Data relating to changes in construction schedule.
 - 4. Any effect of substitution on separate contracts.
 - 5. List of changes required in other work or products.
 - 6. Acceptance will require substantial revision of contract documents or drawings.

- D. Substitute products shall not be ordered or installed without written acceptance of the City Engineer.
- E. The City Engineer will determine acceptability of proposed substitutions.

**(SUBSTITUTIONS AND PRODUCT OPTIONS)
END OF SECTION FIFTEEN**

SECTION 16: MEASUREMENT AND PAYMENT

16.01 GENERAL

Payment for all work completed under this Contract shall be made in accordance with the provisions of Articles 21 and 22 of the Contract on the basis of the specific provisions of this section of the Specifications.

Payments to the Contractor shall be made on the basis of the Schedule of Bidder Unit Price as full and complete payment for furnishing all materials, labor, tools and equipment, and for performing all operations necessary to complete the work included in the Contract Documents.

Such compensation shall also include payments for any loss or damages arising directly or indirectly from the work, or from any discrepancies between the actual quantities of work and those shown in the Contract Documents, or from any unforeseen difficulties which may be encountered during the prosecution of the work until final acceptance by the City.

The prices stated in the Proposal include all costs and expenses for taxes, labor, equipment, materials, commissions, transportation charges and expenses, patent fees and royalties, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the work as shown on the details and specified herein. The Basis of Payment for an item at the price shown in the Table of Unit Prices Form shall be in accordance with its description of the item in this Section and as related to the work specified. Unit prices will be applied to the actual quantities furnished and installed in conformance with the Contract Documents.

The Contractor's attention is called to the fact that the quotations for the various items of work are intended to establish a total price for completing the work in its entirety. Should the Contractor feel that the cost for any item of work has not been established in the Table of Unit Prices Form or this Section, the cost for that Work shall be included in some other applicable Bid Item, so that the Proposal for the project reflects the total price for completing the work in its entirety.

16.02 MEASUREMENT

The quantities for payment under the Contract shall be full compensation determined by actual measurement of the completed items in place, ready for service and accepted by the County, unless otherwise specified.

When depths of cuts are indicated in the bid items, they shall be measured vertically from the existing grade, paved or unpaved, to the pipe centerline.

Linear measurements (such as for pipe items) and area measurements (where applicable) shall be made in the horizontal plane, only.

16.03 LUMP SUM WORK

Items for which quantities are indicated "Lump Sum", "L.S.", or "Job", shall be paid for at the price indicated in the Schedule of Bidders Unit Prices Form. Such payment shall be full compensation for the items of work and all work appurtenant thereto and shall be paid upon completion of and acceptance by the City Engineer of the work in question.

When requested by the City Engineer, the Contractor shall submit to the Engineer, within 15 days after Notice of Award of Contract, a detailed schedule in triplicate, to be used only as a basis for determining progress payments on a lump sum contract or designated lump sum bid item. This schedule shall equal the lump sum bid and shall be in such form and sufficiently detailed as to satisfy the City Engineer that it correctly represents a reasonable apportionment of the lump sum.

16.04 PAYMENT

The quantities listed in the Schedule of Bidder's Unit Prices will not govern final payment.

Payment to the Contractor will be made only for actual quantities of Contract items constructed in accordance with the Plans and Specifications. Upon completion of construction, if the actual quantities show either an increase or decrease from the quantities given in the schedule, an adjustment in payment will be made.

This adjustment will be based upon the increase or decrease in quantity and the Contract Unit Price.

Payment will not be made for excess material placed; materials wasted or disposed of in a manner not called for under the Contract. This includes rejected material not unloaded from vehicles, material rejected after it has been placed, and material placed outside of the Plan or payment limit lines. No compensation will be allowed for disposing of rejected or excess material.

**(MEASUREMENT AND PAYMENT)
END OF SECTION SIXTEEN**

SECTION 17: CLEARING AND GRUBBING

GENERAL

17.01 SCOPE

The work included under this section consists of the supply of all equipment, materials and labor and performing all functions required for clearing and grubbing the work site in preparation for the Construction of the City of Hallandale Beach's Water and Sewer Project.

17.02 STANDARDS AND REGULATIONS

The Contractor shall comply with all of the regulations of the City of Hallandale Beach and the State of Florida regarding burning and disposal of debris resulting from the clearing and grubbing operation.

17.03 SUBMITTALS

The Contractor shall submit, for approval, the location of all sites to be used for disposal of debris resulting from the clearing and grubbing operation.

17.04 MEASUREMENT AND PAYMENT

Measurement and payment will be included in the unit price bid for Items for which price and payment shall constitute full compensation for furnishing all materials, equipment and performing all work in connection therewith.

17.05 EXECUTION

The work of clearing and grubbing shall include the removal and satisfactory disposal of all structures and of all other obstructions, including underground obstructions, except for any work which might be specifically included for removal under other items of work.

Any deposits of muck, peat, bark, trash or other debris occurring within the limits of clearing and grubbing or where directed by the Engineer shall be removed to their full depth and backfilled with native sand. Exceptions may be taken to backfilling of areas to be further excavated for structures, as approved by the Engineer.

Property obstructions which are to remain in place, such as buildings, sewers, drains, water or gas pipes, etc., are to be carefully protected from injury and are not to be displaced, except for unusual cases when so directed by the Engineer.

Standard clearing and grubbing shall consist of the complete removal and disposal of all sidewalks, drives, trees, shrubs, walls, timber, brush, stumps, roots, grass, weeds, sawdust, rubbish and other obstructions resting on or protruding through the surface of the existing ground and the surface of excavated areas.

In all areas where excavation is to be done and where the excavated material is to be used in the construction of roadway embankment, roadway base or building pads, also in all areas where roadway embankments or building pads will be constructed; all stumps, roots, and other debris shall be removed to a depth of at least one (1) foot below the ground surface. The surface shall then be plowed to a depth of not less than six (6) inches and all stumps, roots, etc. thereby exposed shall be removed to a depth of at least one (1) foot.

Where excavation is done within the roadway area and where excavation for structures is done, all stumps, roots, etc. protruding through or appearing on the surface of the completed excavation shall be removed to a depth of at least one (1) foot below the excavation surface.

17.06 DISPOSAL OF MATERIALS

Timber, stumps, brush, roots, rubbish and other objectionable material resulting from clearing and grubbing shall be disposed of by the Contractor in a lawful manner in locations and by methods approved by the City Engineer.

Where burning of such materials is permitted, all such burning shall be subject to applicable laws, ordinances and regulations and shall be done at locations where trees and shrubs adjacent to the cleared area will not be harmed. It shall be the responsibility of the Contractor to obtain all necessary permits for any on-site burning.

Where burning is prohibited by law, ordinance or regulation, the Contractor shall dispose of the materials within areas provided by him and approved by the City Engineer or hauled to the county landfill in accordance with local laws and regulations. Any applicable landfill or dumping fees will be paid by the Contractor.

**(CLEARING AND GRUBBING)
END OF SECTION SEVENTEEN**

**SECTION 18: TEMPORARY AIR AND WATER POLLUTION,SOIL EROSION, AND
SILTATION CONTROL**

GENERAL

18.01 SCOPE

During the life of a contract the Contractor shall control water pollution, soil erosion, and siltation through the use of berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods in accordance with the Storm Water Pollution Prevention Plan and conditions of the permit. The Contractor must maintain a copy of the Storm Water Pollution Prevention Plan on site.

The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

MATERIALS

18.02 GRASS

Grass which will not compete with the grasses sown later for permanent cover shall be a quick-growing species (such as ryegrass, Italian ryegrass, or cereal grasses) suitable to the area providing a temporary cover.

18.03 MULCHES

Mulches may be hay, straw, fiber mats, netting, bark, wood chips, or other suitable material reasonably clean and free of noxious weeds and deleterious materials.

18.04 FERTILIZER

Fertilizer shall be a standard commercial grade and shall conform to all Federal and State regulations and to the standards of the Association of Official Agricultural Chemists.

18.05 SLOPE DRAINS

Slope drains may be constructed of pipe, fiber mats, rubble, portland cement concrete, bituminous concrete, or other materials that will adequately control erosion.

18.06 TURBIDITY CURTAIN

The Curtain shall meet the requirements of Florida Department of Transportation Standard Index No. 103 and FDOT Standard Specifications for Road and Bridge Construction Section 104, latest edition.

18.07 OTHER

All other materials, such as geotextile, shall meet commercial grade standards and shall be approved by the City Engineer before being incorporated into the project.

EXECUTION OF WORK

18.08 GENERAL

In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

18.09 SCHEDULE

Prior to the start of construction, the Contractor shall submit schedules for accomplishment of erosion control work, as are applicable for clearing and grubbing; grading; construction; paving; and structures at watercourses. The Contractor shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the City Engineer.

**(TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION
CONTROL)
END OF SECTION EIGHTEEN**

SECTION 19: TRENCHING, EXCAVATION, BACKFILLING AND COMPACTING

GENERAL

19.01 WORK INCLUDED

- A. Excavate for all underground piping, including services.
- B. Place and compact granular beds and fills over services to rough-grade elevations.
- C. Dewater excavations as required.
- D. Provide daily cleanup of site, backfilling of open trenches shall be done as soon as pipe work is complete. Stored materials shall not block vehicular or pedestrian traffic. Provide access to adjacent properties, control dust and erosion.
- E. Maintain turbidity and erosion control.

19.02 SITE COMPACTION TESTING

- A. Testing of compacted fill materials will be performed
- B. If, during progress of work, tests indicate that compacted materials do not meet specified requirements, remove defective work, replace and retest as directed by the City Engineer.
- C. Ensure compacted fills are tested before proceeding with placement of surface materials.

19.03 PROTECTION

- A. Protect trees, shrubs and lawn areas to receive planting, rock outcropping and other features remaining as part of final landscaping.
- B. Protect bench marks and existing structures, roads, sidewalks, paving and curbs against damage from vehicular or foot traffic. Install and maintain proper bridging, planking and cants to provide access to buildings.
- C. Protect excavations by shoring, bracing, sheet piling, underpinning, or by other methods, as required to prevent cave-ins or loose dirt from falling into excavations.
- D. Underpin or otherwise support adjacent structure(s) which may be damaged by excavation work. This includes service lines and pipe chases.
- E. Notify the City Engineer of any unexpected subsurface conditions. Discontinue work in the area until Engineer provides notification to resume work.

- F. Prevent washing or piping of soils during dewatering procedures, provide turbidity control.
- G. Saw cut trench edges to protect adjacent concrete and asphalt.
- H. Maintain site to prevent erosion or sediment transport from the site.
- I. Keep site clean and orderly, control dust and debris.
- J. In grass shoulder and easement areas, the contractor shall be responsible for locating, temporarily relocation, safeguarding and restoring irrigation lines and facilities.

PRODUCTS

19.04 BED AND FILL MATERIALS

- A. Bed Materials: Approved granular material, crushed stone, or washed rock, $\frac{3}{4}$ inch, maximum, non-cohesive and non-plastic, free of organic matter compacted to 100% maximum density per AASHTO T-180. A minimum of 4-inches of bedding material, measured from bottom of bell to natural earth, shall be used. Bedding material shall support pipe as shown on the drawings. When excavation of rock is encountered, all rock shall be removed to a depth of at least 6-inches below the pipe and replaced with bedding material.
- B. Selected Backfill: After pipe joints have been inspected and given preliminary approval, and sufficient time has elapsed for setting of joints if necessary, backfilling shall be performed by hand, together with tamping, until fill has progressed to an elevation at least one foot above the top of the pipe bell. During this initial stage of backfilling, approved granular 2-inch, maximum, materials free from lumps, clods, or muck shall be deposited in layers of approximately 6-inches thick and compacted by hand or with manually operated machine tampers actuated by compressed air, or other suitable means. Tamps and machines shall be suitable for the work, and subject to the approval of the City Engineer.
- C. Backfill Material: Excavated material, free from roots, muck, organic material, rocks larger than 4 inches in size, building debris or other deleterious materials.
- D. Fill Under Landscaped Areas: Free from alkali, salt, and petroleum products. Use subsoil excavated from site only if conforming to specified requirements.

EXECUTION

19.05 PREPARATION AND LAYOUT

- A. Establish extent of excavation by area and elevation. Designate and identify datum elevation.
- B. Set required lines and levels.
- C. Maintain bench marks, monuments and other reference points.
- D. Precut pavement and concrete.
- E. Notify Florida Sunshine / One Call and obtain a utility location and mark out, as required by law and the drawings.

19.06 UTILITIES

- A. Before starting excavation, fields establish the location and extent of underground utilities occurring in the work area and have utilities marked in the field.
- B. Notify the City Engineer if utility lines which are in the way of excavation are uncovered.
- C. Protect and support active utility services uncovered by excavation.
- D. Remove abandoned utility service lines from areas of excavation. Cap, plug or seal such lines and identify at grade.
- E. Accurately locate (horizontally and vertically) and record abandoned and active utility lines and services on project record documents. Document clearance between these features and the installed force main.
- F. Minor changes in alignment and grade to avoid existing utilities shall not be considered additional work.

19.07 TRENCHING

- A. Ensure trenching does not interfere with normal 45-degree bearing splay of any foundation.
- B. Excavate in accordance with lines and grades.
- C. Cut trenches sufficiently wide to enable proper installation of services and to allow for inspection. Trim and shape trench bottom and leave free of irregularities, lumps and projections. Trenching shall comply with Florida and Federal safety requirements.

- D. Do not disturb soil within branch spread of existing trees or shrubs that are to remain. If it is necessary to excavate through roots, perform work by hand and cut roots with a sharp axe.
- E. When complete, request the Engineer to inspect excavations. Correct unauthorized excavation as directed, at no cost to Owner.
- F. Remove excess or unsuitable excavated sub-soil from site.
- G. Prevent erosion and washing of excavated materials. Materials to be used as backfill shall be stored as to prevent blocking public or private access, and traffic or where it will become a nuisance to the public or the owner or will interfere with line of sight. The site shall be kept orderly and as clean as possible.
- H. Saw cut asphalt and concrete before excavation of pavements.
- I. Support existing utilities as needed to complete the work.
- J. Where the trench bottom is unstable due to muck or other conditions, the deleterious material shall be removed to a minimum depth of 2 feet and replaced in select fill compacted. The Engineer may direct removal to depths greater than 2 feet. When excavation of rock is encountered, all rock shall be removed to a depth of at least 6-inches below the pipe and replaced with bedding material.

19.08 DEWATERING

- A. Keep trenches dry. Provide necessary equipment including pumps, piping and temporary drains.
- B. Do not discharge drainage water lines into storm sewers without approval. Ensure water discharge does not contain silt held in suspension, provide turbidity control.
- C. Direct surface drainage away from excavated areas.
- D. Control the grading in and adjacent to excavations to prevent water running into excavated areas or onto adjacent properties or public thoroughfares.
- E. Furnish and operate suitable pumps on a 24-hour basis to keep excavations free of water until piping has been placed and backfilling has been completed.
- F. No water shall be allowed to rise over masonry or mortar until the concrete or mortar has set at least 24 hours.

19.09 BACKFILLING

- A. Do not start backfilling until piping has been inspected.

- B. Ensure trenches are free of building debris, muck, wood, rocks over 2-inches in diameter and water.
- C. Backfill systematically and as early as possible to allow maximum time for natural settlement and compaction.
- D. After backfill has reached a point one foot above the top of the pipe with select granular material, a variation in the procedure as to manner of placing and amount of compaction of fill will be allowed, depending upon the location of the work and danger from subsequent settlement, as follows:
 - 1. For backfilling in unimproved areas (along utility easements and in parkway strip beyond the edge of driveways and graveled parking areas): From an elevation of one foot above top of pipe to the surface of the ground, backfill may be deposited by backhoe, bulldozer or other suitable equipment. Depositing in 12-inch layers and compacting to a minimum of 100% maximum density in accordance with AASHTO T-180. All surplus excavated materials shall be disposed of by the Contractor at his expense unless otherwise directed by the Engineer. Compaction testing shall be performed as required on the drawings.
 - 2. For backfilling beneath driveways and parking areas, alleys, and streets where non-rigid type surfacing is to be replaced: This shall also include dirt, gravel or cinder driveways and alleys.
 - a. The backfill material shall be carefully deposited in uniform layers not to exceed 6 inches in thickness, and each layer shall be compacted to 100% in accordance with AASHTO T-180 with manually-operated machine tampers, latest edition
 - b. If, in the opinion of the City Engineer, the excavated material can be satisfactorily compacted by water jetting, this method may be used. The jetting operation shall be approved by the City Engineer.
 - c. In lieu of the foregoing compaction method, the backfill material and procedure used may be that as specified under method 3, below.
 - d. Compaction testing shall be performed as required on the drawings.
 - 3. For backfilling across and beneath driveways, sidewalks, parking areas or streets where a rigid-type paving is to be replaced (concrete and asphaltic concrete and brick surfaces):
 - a. All backfill material shall be approved granular material of high weight and density. The material shall be carefully deposited in uniform layers not to exceed 6 inches thick (loose measure), and each layer shall be compacted by ramming or tamping with

tools approved by the Engineer in a manner that does not disturb the pipe. Where necessary, granular base material of the type and thickness specified shall be used for the last layer prior to surfacing.

- b. In lieu of ramming or tamping in 6-inch layers, the approved granular backfill may be placed in one operation and water-jetted. The jetting operation shall be as approved by the Engineer.
- c. Backfill materials shall be compacted to a minimum of 100% of maximum density in accordance with AASHTO T-180.
- d. Compaction testing shall be performed as required on the drawings.

19.10 MEASUREMENT AND PAYMENT

No separate compensation shall be made for excavation, bedding, disposal of excess materials and backfill. Work shall be paid for as part of the unit prices of the applicable item

(TRENCHING, EXCAVATION, BACKFILLING AND COMPACTING) END OF SECTION NINETEEN

GENERAL

SECTION 20: FINISH GRADING

20.01 SCOPE

The Contractor shall, under this Section:

- A. Finish grade all sub-soil.
- B. Cut out areas to receive stabilizing base course materials for paving and sidewalks.
- C. Supply, place, roll, and finish grade all materials and topsoil prior to landscaping work.
- D. Restore surface drainage and swales to the original design.

20.02 SUBMITTALS

Composition of the top soil to be used and its source, type of replacement sod and its source.

20.03 QUALITY CONTROL

The Contractor shall prevent damage to existing fencing, trees, landscaping, natural features, bench marks, pavement, utility lines, and sprinkler system. Correct damage at no cost to the Owner.

20.04 MEASUREMENT AND PAYMENT

No separate payment shall be made for landscape restoration.

MATERIALS

20.05 TOPSOIL

Topsoil shall be friable loam free from subsoil, roots, grass, excessive amount of weeds, stones and foreign matter; acidity range (pH) of 5.5 to 7.5; containing a minimum of 4% and a maximum of 25% organic matter.

EXECUTION

20.06 SUB-SOIL PREPARATION

- A. Rough grade sub-soil systematically to allow for a maximum amount of natural settlement and compaction. Eliminate uneven areas and low spots. Remove debris, roots, branches, stones, etc., in excess of 2 inches in size. Remove sub-soil which has been contaminated with petroleum products.
- B. Cut out areas, to sub-grade elevation, which are to receive stabilizing base for paving and sidewalks.
- C. Bring sub-soil to required levels, profiles and contours. Make changes in grade gradual. Blend slopes in to level areas.
- D. Slope grade away from building minimum 4 inches in 10 feet (unless indicated otherwise on Drawings).

20.07 PLACING TOPSOIL

- A. Place topsoil in area where seeding, sodding and planting is to be performed. Place to the following minimum depths, up to finished grade elevations:

4 ½-inches for sodded areas.

- B. Use topsoil in relatively dry state. Place during dry weather.
- C. Fine grade topsoil eliminating rough and low areas to ensure positive drainage. Maintain levels, profiles and contours of sub-grades.
- D. Remove stones, roots, grass, weeds, debris and other foreign material while spreading.
- E. Manually spread topsoil around trees, plants, buildings and other structures to prevent damage which may be caused by grading equipment.
- F. Lightly compact placed topsoil.

20.08 SURPLUS MATERIAL

- A. Remove surplus sub-soil and topsoil from site.
- B. Leave stockpile areas and entire job site clean and raked, ready to receive landscaping.

**(FINISH GRADING)
END OF SECTION TWENTY**

GENERAL

SECTION 21: SURFACE RESTORATION

21.01 SCOPE

The work shall include completing of surface restoration as specified herein. This work includes protection and/or removal and replacement of road way and driveway surface and pavement, striping, signs, concrete curb, gutter, driveway aprons and/or sidewalk, and landscaping restoration of features damaged by the Work. Surface restoration shall follow completion of backfilling within seven (7) calendar days.

As used herein, "driveway" shall mean concrete driveway aprons and asphalt or concrete driveways and "curb and gutter" shall mean free standing concrete curb, gutter, or combination curb and gutter.

In order to protect himself from being held liable for any existing damage to roadway, concrete and asphalt driveways, sidewalks or curb and gutter, landscaping, etc., the Contractor is advised to notify in writing the authority having jurisdiction over the street where such damage exists prior to proceeding with any work in the vicinity and to document the damaged areas in the prework video tape record.. A copy of all such notices shall be forwarded to the City.

21.02 REFERENCES

Work and materials shall conform to the applicable requirements from the following references:

- A. Florida Department of Transportation "Standard Specifications for Road and Bridge Construction", Latest Edition.
 - 1. FDOT Section 300 - Prime and Base Courses
 - 2. FDOT Section 320 - Hot Bituminous Mixtures - Plant, Methods and Equipment
 - 3. FDOT Section 331 - Type S Asphaltic Concrete
 - 4. FDOT Section 911-3 - Composition of Limerock Material for Limerock Base and Limerock Stabilized Base
 - 5. FDOT Section 345 - Portland Cement Concrete
 - 6. FDOT Section 520 - Concrete Gutter, Curb Elements and Traffic Separator
 - 7. FDOT Section 522 - Concrete Sidewalk
 - 8. FDOT Section 575 - Sodding
 - 9. FDOT Section 580 - Landscaping
 - 10. FDOT Section 711 – Thermoplastic Traffic Stripes and Markings

- B. American Association of State Highway and Transportation Officials (AASHTO).

AASHTO T-180 - Test for Moisture-Density Relations of Soils Using a 10 lb. Rammer and an 18-Inch Drop Modified Protector Test.

- C. Section 19, Trenching, Excavation, Backfilling and Compaction

- D. Minimum Standards, Latest Edition, Broward County Public Works Department, Engineering Division

MATERIALS

21.03 ROADWAY MATERIALS

A. SUBGRADE

Subgrade shall be compacted in accordance with the requirements in Section 19. The top 12 inches of the subgrade shall be compacted to a minimum of 100 percent of the maximum density (AASHTO T-180). All sub grade material shall have an L.B.R. of 40, minimum.

B. BASE COURSE

The base course shall consist of Grade No. 2 limerock conforming to Section 911-3 of FDOT "Standard Specifications for Road and Bridge Construction". Base course material for paved areas over trenches shall be twice the minimum thickness required: for streets – 2 times 8 inches = 16 inches; for driveways – 2 times 6 inches = 12 inches, as per the above referenced FDOT specification. Base courses shall be compacted and tested in lifts not to exceed 6 inches in thickness and shall be not less than 100 percent of maximum density as per AASHTO T-180.

C. PRIMER

Primer shall be hot bituminous material in accordance with Section 300-2 of FDOT Standard Specifications, Latest Edition. Alternate primers shall be acceptable only with prior approval of the City.

D. TACK COAT

Tack coat shall be in accordance with Section 300-2.3 of FDOT Standard Specifications, Latest Edition.

E. SURFACE COURSE

The surface course shall be at least 1-1/2 inches of Type S-III asphaltic concrete in accordance with all applicable requirements of Sections 320 and 332 of FDOT "Standard Specifications for Road and Bridge Construction," Latest Edition.

21.04 GRASS, SHRUBBERY, TREES, ETC.

All planted vegetation which is removed, damaged or destroyed by project construction shall be replaced by like kind and in the same manner. Grass restoration shall be done with sod. See also Section 21.08, below.

EXECUTION OF WORK

21.05 STATE OR COUNTY OWNED PUBLIC PAVEMENT

Restoration within all State or County owned and maintained rights-of-way shall be made in strict compliance with the construction permit. Where the trench is parallel in a lane of traffic the entire effected lane shall be resurfaced.

All work shall be subject to final inspection and approval of the Florida Department of Transportation or the County and shall be completed as expeditiously as possible.

21.06 UNIMPROVED AREAS

Unimproved areas shall be restored to a condition equal to that which existed prior to this construction including grading elevations and ground cover.

21.07 RIGHT-OF-WAYS AND/OR EASEMENTS IN GRASS AND SHRUBBERY PLOTS (SWALES)

Rights-of-way and/or easements in grass and shrubbery plots (swales) shall be restored to the condition existing prior to making the excavation. All shrubbery, ornamental trees and other plantings shall be fully protected. If it is found necessary to remove any grass, shrubbery or plants to accomplish the work, they shall be satisfactorily replaced before the work will be accepted or paid for. Grass shall be replaced with sod.

The area to be sodded shall be leveled and prepared to provide a smooth, even surface. All stones, roots and other debris over 2" in largest dimension shall be removed. The surface shall be loosened to provide a proper bed of sand on black dirt. No compaction of swale areas will be allowed. Thickness of sod of two (2) inches should be taken into consideration when preparing swales.

Sod must be placed within 72 hours from excavating and preparing swale. In the event rain erodes surface of swales, the area must be prepared again to provide a smooth, even surface and surface shall be loosened again to provide a proper bed of sand and black dirt at no additional cost to the City.

Sod material shall be strongly rooted St. Augustine Floratan grass of good quality and free from weeds. It shall be alive and viable, not dormant. Sod shall be placed within 24 hours from time of striping and shall be placed with tightly fitting joints. After laying, sod shall be covered with sufficient top dressing to fill voids remaining and thoroughly watered to wash top dressing into sodded surface. Unmixed sand shall be used for top dressing.

Finished elevation of new sod along edges of road and driveway aprons must be such to allow rainwater to flow freely to swale areas. Finished elevation of new sod along edges of existing sod must match the elevation of the existing sod. Completed sod surface shall be even and firm and shall be flush with top of abutting walks, paving, concrete borders, catch basins, and the like.

The Contractor shall water immediately after placing and at least four (4) times per week for fourteen (14) days, to insure proper growth. All sod material that is dead or in poor condition when the project is inspected for acceptance will be replaced at the Contractor's expense.

The Contractor shall be responsible to locate and safeguard any irrigation lines within the swale area and repair of any irrigation line damaged by contractor is the contractor's responsibility.

The contractor shall be responsible for safeguarding the asphalt or concrete along the edges of the road and driveway aprons during the regrading and preparation of the swale. Any damage to the road or driveway aprons must be repaired at the contractor's expense.

21.08 CLEANUP

Cleanup is an essential part of the project and this portion of the work will not be considered complete. Final payment made shall not be granted until the cleanup is complete to the satisfaction of the Engineer.

21.09 STRIPING AND SIGNS

Pavement striping, traffic control devices, and signs shall be restored in accordance with Broward County Minimum Standards and as follows:.

A. Pavement Stripes and Markings

For temporary pavement stripes and directional arrows, apply paint materials listed on the Qualified Products List, according to Section 710, FDOT SSR&BC.

For permanent pavement stripes and directional arrows, use thermoplastic materials listed on the Qualified Products List according to Section 711, FDOT SSR&BC.

Parking pavement stripes shall be paint traffic stripes meeting the requirements of Section 710 of the FDOT SSR&BC.

Place raised retro-reflective pavement markers: amber on yellow line and traffic separation; colorless/red at gore and on white line of road sharp curves. Use RPM materials and bituminous adhesives listed on the Qualified Products list, according to Section 706, FDOT SSR&BC.

Each job site must be left clean and restored to existing or better condition.

B. Signs

Furnish and erect roadway signs, with supporting posts at the locations shown in the plans, in accordance with manual on Uniform Traffic Control Devices, latest edition and Standard Highway Signs Manual published by the U.S. Department of Transportation, 2000 and Section 700 of FDOT SSR&BC. Provide posts for all frangible sign assemblies consisting of galvanized steel U-Channel as listed on the Qualified Products List. Refectories all signs.

All existing signs and supports that will be replaced shall be removed and delivered to the City of Hallandale Beach Public Works Department at 630 NW 2nd Street, Hallandale Beach, FL 33009. No additional compensation will be granted for removal and delivery to the City.

**(SURFACE RESTORATION)
END SECTION TWENTY-ONE**

SECTION 22: PIPE AND FITTINGS

GENERAL

The Work under this Section of the Specifications shall include the furnishing and installation of all materials needed for the piping systems as shown on the Drawings.

22.01 WORK INCLUDED

- A. In general, the Work under this Section shall include, but is not limited to, furnishing and installing:
 - 1. Pressurized system piping.
 - 2. All necessary fittings, restraint system and appurtenances.
 - 3. Pressure testing.
 - 4. Take replaced lines out of service.

- B. The Work shall also include the furnishing of all labor, materials, equipment, lights, transportation, and performing all operations necessary for the proper placement of the water mains in accordance with these Specifications, as shown on the Drawings, and directed by the Engineer.

22.02 QUALITY ASSURANCE

- A. Where local building and/or plumbing codes conflict with the use of any material, pipe or type of fittings and/or where the local code is more restrictive or specific than this Specification, the material, pipe or type of fittings producing a better quality or greater quality product and not prohibited by the code shall be utilized.
- B. Supplier shall provide manufacturer's certificates for all materials indicating conformance to these specifications.
- C. Supplier shall also provide certification that all testing/inspection required by this specification and referenced standards have been made on all pipe and fittings shipped and that they meet the required specifications.

22.03 REFERENCES

A.	AASHTO	American Association of State Highway and Transportation Officials
B.	ANSI	American National Standards Institute
C.	ASTM	American Society for Testing and Materials
D.	AWWA	American Water Works Association
E.	ASME	American Society for Mechanical Engineers
F.	AWS	American Welding Society
G.	DIPRA	Ductile Iron Pipe Research Association
H.	FS	Federal Specification
I.	NFPA	National Fire Protection Association
J.	SSBC	Southern Standard Building Code
K.	WPCF	Water Pollution Control Federation
L.	NSF	National Sanitation Foundation
M.	UNI-BELL	Uni-Bell Plastic Pipe Association

22.04 CONNECTION TO EXISTING WORK BY OTHERS OR EXISTING LINES

Connection to existing lines, to which piping of this Contract must connect, the following work shall be performed.

- A. Expose buried lines to confirm or determine end connection, pipe material and diameter.
- B. Furnish and install appropriate piping and make proper connections.

22.05 SUBMITTALS

- A. Submit to the City within ten (10) days after Notice to Proceed with the Contract a list of materials to be furnished, the names of the suppliers.
- B. All ductile-iron pipe and fittings to be installed under this Contract shall be inspected and tested at the foundry as required by the standard specifications to which the material is manufactured. Furnish in duplicate to the Engineer sworn certificates of such tests and their results. In addition all ductile-iron pipe and fittings to be installed under this Contract may be inspected at the foundry laboratory. The manufacturer's cooperation shall be required in these inspections.
- C. Shop drawings including layouts shall be submitted to the City Engineer for approval in accordance with the contract documents and shall include dimensioning, methods and locations of supports and all other pertinent technical specifications for all piping to be furnished.

PRODUCTS

22.06 PIPE MATERIALS

- A. Ductile Iron Pipe:
 - 1. Ductile Iron Pipe shall be centrifugally cast in metal or sand-lined molds and shall conform to ANSI/AWWA C151, A21.51, most recent revision, pressure Class 350 thickness, unless otherwise noted on Drawings.
 - 2. Type of Joints:
 - a. Mechanical Joint - ANSI/AWWA C110 A21.10 and C111 A21.11.
 - b. Push-On Joint - ANSI/AWWA C111 A21.11.
 - c. Flanged Joint - ANSI/AWWA C110 A21.10 or C115 A21.15.
 - 3. Restrained Joint Pipe shall be manufactured by United Station Pipe and Foundry Company (TR Flex), American Cast Iron Pipe Company (Lok-Ring) or approved equal.
- B. Pipe Lining and Coatings:
 - 1. Buried ductile iron pipe shall be bituminous coated as per AWWA C151/A21.51.

2. Ductile iron pipe utilized for raw sewage shall have an interior lining of Protecto 401 ceramic epoxy lining, 40 mils thickness or approved equal. Ductile Iron Pipe in the wet well shall also be similarly exterior coated with Protecto 401.
3. Sewage force main pipe shall have a green stripe painted on its exterior.

22.07 FITTINGS

A. Ductile Iron Fittings:

Ductile Iron Fittings: All fittings shall be ductile iron, except that fittings in the wet well may be PVC. Fittings shall be as shown on the Drawings and/or shall conform to the following:

1. Mechanical Joint Fittings - ANSI/AWWA C153 A21.53 or ANSI/AWWA C111 A21.11.
2. Push-On Pipe Fittings - Use mechanical joint fittings, ANSI/AWWA C153 A21.53 or ANSI/AWWA C110 A21.10.
3. Flanged Fittings - ANSI/AWWA C110 A21.10.
4. Screwed Fittings - ANSI/AWWA C110 A21.10.
5. Fittings shall be lined and coated in accordance with paragraph 2.01B Pipe Linings and Coating, above.
6. Mechanical joint fittings shall be restrained by appropriate Mega-Lug follower glands. Pipe joints on either side of valves and fittings shall also be harnessed, as required by this Section and as shown and specified on the drawings.

EXECUTION

Ductile iron pipe installation shall conform to AWWA C600 latest edition.

22.08 PREPARATION

- A. The layout of some of the piping systems shown on the Drawings may be diagrammatic, but shall be followed as closely as the work will permit. The Contractor shall field verify the location of existing Utilities.

- B. Before running lines, the Contractor shall carefully verify location, depth, type of joint needed and size of pipe to which connection is proposed. Contractor shall be assured that the lines can be run as contemplated without interfering with footings, walls, other piping, and utilities etc. Any necessary deviation shall be referred to the City Engineer for final adjustment before lines are run.
- C. All lengths of pipe shall be dimensioned accurately to measurement established at the site, and shall be worked into place without springing or forcing. Cut sections of pipe shall be reamed to remove all burrs. Pipe shall be cut in a neat manner with mechanical cutters. Wheel cutters shall be used where practicable. Sharp and rough edges shall be ground smooth and loose material removed from the pipe before laying. Use of power driven abrasive discs or sanders will not be permitted.
- D. Material delivered to the site shall be inspected for damage, unloaded and stored with a minimum of handling. Material shall be stored in accordance with the manufacturer's recommendations. The insides of pipe, valves and fittings shall be kept free from dirt and debris. Gasket and plastic materials shall be kept protected from exposure to direct sunlight over extended periods. Solvents, solvent compounds, lubricants, elastomeric gaskets, and any similar material required to install the pipes shall be stored in accordance with the manufacturer's recommendations and shall be discarded if the storage period exceeds the recommended shelf or pot life. Storage facilities for plastic pipe, fittings, joint material and solvents shall be classified and marked in accordance with NFPA No. 704, with classification as indicated in NFPA Nos. 49 and 325M. Material shall be handled in such a manner as to insure delivery to the trench in a sound, undamaged condition. Pipes shall be carried to the trench, not dragged.
- E. Utmost care shall be exercised in loading, and placed of all pipe, fittings, valves, etc., in order to avoid shock and/or damage. Lifting shall be by hoist or skids when hand lifting is not feasible. Dropping will not be permitted. Pipe handled on skid ways must not be skidded or rolled against pipe already on the ground.
- F. Any pipe, special castings, or other appurtenances broken or damaged in transit to the site where they are to be used, or after they have been delivered to the site, shall be replaced by the Contractor at Contractor's own expense.
- G. All pipes and special castings shall be carefully examined for defects, and no pipe or special casting shall be laid which is known to be defective. If any such pipe or special casting shall be discovered to be defective after being laid, it shall be removed and replaced with a sound casting by the Contractor at Contractor's expense.

- H. The Contractor shall cut all pipe and drill all holes that may be necessary, whenever and wherever so required. This work shall be done in a thorough and workmanlike manner.
- I. All changes in direction unless otherwise noted on the drawings or approved by the Engineer shall be made with fittings, as bending pipe is prohibited. Deflection of piping at joints will be permitted at angles 75% of the manufacturer's maximum recommended deflection. Minor changes in alignment and grade to field conditions shall not be considered extra work. No payment will be made for additional fittings that may be needed.
- J. The pipe shall be kept clean. All foreign material shall be removed from the inside of the pipe before it is placed. Should the pipe become dirty, contaminated or flooded it shall be cleaned.

22.09 INSTALLATION OF PIPING

- A. Lines, Grades, Stakes and Templates:
 - 1. The Contractor shall, at Contractor's own expense, furnish all stakes, templates, patterns, platforms, and labor that may be required in the layout of any part of the Work.
 - 2. Rim elevations on manholes are shown on the drawings and shall be used as vertical reference.
 - 3. The City Engineer may furnish a representative to check alignment and grade after it has been laid out ready for construction; however, this will in no way lessen the responsibility of the Contractor to maintain correct grade and alignment at all times.
 - 4. The line and grade of all piping, as well as the location of all appurtenances, will be as shown on the Drawings, or as directed by the Engineer. Pipe shall be laid at a uniform grade with high points at air release valves or as directed by the City Engineer.
 - 5. The Contractor shall give the City a minimum of forty-eight hours notice for any engineering or inspection necessary to continue or complete the work.
- B. Excavation:
 - 1. The Contractor shall perform all excavation that may be required for the installation of any and all parts of this Section. Excavations shall conform to all Federal, state and local safety requirements.

2. The excavation of the trench shall not advance more than 100 feet ahead of the completed pipe work except where, in the opinion of the Engineer, it is necessary to drain wet ground, or for other reasons as approved by the Engineer.
3. Asphalt pavement and concrete shall be precut before excavation.
4. All excavations shall be made by open cut except as shown on the Drawings. The sides of the trench shall be kept as nearly vertical as possible in order to minimize damage to utilities and surface features and to provide safe operation, especially from the trench floor to a level of one foot above the top of the pipe. As per AWWA C-605, paragraph 4.2.1, trench bottoms shall not be less than 16 inches wider nor more than 24 inches wider than the outside diameter of the pipe laid therein, and shall be excavated true to line, so that a clear space of not less than eight inches nor more than twelve inches in width is provided on each side of the pipe.

The bottom of trenches shall be accurately graded to provide uniform bearing and support for each section of pipe on undisturbed soil or compacted bedding material at every point along its entire length, except for portions of the pipe sections where it is necessary to excavate for bell holes. Bell holes shall be excavated only to an extent sufficient to permit accurate work in the making of the joints and to ensure that the pipe, for a maximum of its length, will rest upon the prepared bottom of the trench.

If the maximum width of the trench at the top of the pipe, as shown on the Drawings and as specified in Section 19 and AWWA C-605, paragraph 4.2.1, is exceeded for any reason other than by direction of the Engineer, the Contractor shall install, at his sole expense, such measures as are appropriate for the additional backfill and live load loading on the pipe (for an embankment, rather than a trench condition), such as a stronger class of pipe, ductile iron pipe substituted for PVC pipe, etc.

5. Excavation carried beyond or below grades specified by the Engineer shall be backfilled at the Contractor's expense with earth, sand, gravel, or concrete, as directed by the Engineer and shall be thoroughly tamped.
6. The materials excavated shall be deposited on the side of the trenches and beyond the reach of slides, with the banks trimmed up so a little inconvenience as possible is made to public travel or tenants occupying adjoining property.

7. Sidewalks, roads, street, and pavements shall not be blocked or obstructed by excavated materials, except as authorized by the Engineer. In this case, adequate temporary provisions will be made for a satisfactory temporary passage of pedestrians and vehicles. Barriers, lights, flares and any other necessary warning devices shall be provided and maintained by the Contractor at all trenches, excavations and embankments at no additional compensation.
8. In case it is necessary to place excavated material adjacent to buildings, the Contractor shall erect barriers to keep the earth at least four feet from the front of such buildings. In case earth is deposited on grass plots, the Contractor shall remove it carefully when backfilling so as to not to destroy the grass. All trees, shrubs, etc., along the line of construction shall be reasonably protected.
9. The Contractor shall, without additional expense, provide suitable temporary channels for any water that may flow along or across the site of the Work.
10. Where the bottom of the trench is found to consist of material which is unstable to such a degree that, in the opinion of the City Engineer, it cannot be removed and shaped to adequately support the pipe, the trench bottom shall be stabilized by the Contractor to the satisfaction of the City Engineer.
11. When excavations exceed 5 feet in depth in order to comply with CS/HB 3183, Florida Trench Safety Act and OSHA Trench Safety Standards a trench box or other approved means of worker protection must be used.

C. Pipe Clearances in Rocks:

1. Bed rock, boulders and large stones shall be removed to provide a clearance of at least six inches below and the full trench width. Before the pipe is laid, all irregularities of the rock are to be filled with earth or sand well compacted into place, and the bottom of the trench brought to proper grade.
2. The specified minimum clearances are the minimum clear distances which will be permitted between any part of the pipe and appurtenances being laid and any part, projection or point of such rock, boulder or stone.

- D. Blasting: No blasting will be allowed.
- E. Bracing and Shoring: The Contractor shall do all bracing, sheathing and shoring necessary to perform and protect all excavations as indicated on the Drawings as required for safety, as directed by the Engineer, or to conform with all governing laws.
- F. Dewatering: The Contractor shall at all times during construction, provide and maintain ample means and devices with which to promptly remove and properly dispose of all water entering the trenches or excavations and keep said excavations dry until the structures to be built thereon are completed. No masonry shall be laid or pipe joints made in water, nor shall water be allowed to rise over masonry or mortar until the concrete or mortar has set at least twenty-four hours (24).
- G. Bedding and Base Fill:
- After pipe joints have been inspected and given preliminary approval, and sufficient time has elapsed for setting joints is necessary, backfilling shall be performed by hand, together with tamping, until fill has progressed to an elevation at least one (1) foot above the top of the pipe. During this initial stage of backfilling, approved granular materials (where required) or loose soil free from lumps, muck, organic materials, clods, or stone larger than two inches or other deleterious materials shall be deposited in layers or approximately six inches thick and compacted by hand, or with manually operated machine tampers actuated by compressed air, or other suitable means.
- Tamps and machines shall be suitable for the work, and subject to the approval of the City Engineer.
- H. Laying or Installing Pipe and Fittings:
1. Unless otherwise shown on the Drawings, a minimum two (2) foot horizontal distance shall be maintained between new sewer main installations and any other utilities.
 2. When the pipe is laid in the prepared trench, true to line and grade, the pipe barrel shall receive continuous, uniform support and no pressure will be exerted on the pipe joints from the trench bottom. Pea Rock or 3/4 inch bedding rock shall be used for bedding on all gravity sewers, as shown. Additional broken stone shall be carefully placed and compacted up to the spring line of the pipe. Select granular fill shall be placed and compacted above the pipe, as shown, from the spring line to 12 inches above the pipe.

Where conditions warrant, to prevent the stone bedding from migrating away from the pipe into the sub grade and fines from the sub grade from migrating into the pores of the stone bedding (thereby allowing the pipe to settle or flatten), the pipe's foundation and initial backfill shall be wrapped in a geotextile fabric liner, as shown.

3. Pipe and fittings shall be carefully inspected before laying (before lowering and while suspended) and no cracked, broken or otherwise defective items shall be incorporated into the work. Pipe and fittings shall be protected during handling against impact shocks and free fall. The interior of the pipes shall be thoroughly cleaned of all foreign matter before and during being lowered into the trench. During suspension of work for any reason at any time, a suitable stopper shall be placed in the end of the last section of pipe laid to prevent mud or other foreign material from entering the pipe. During the progress of the laying, care shall be taken to protect both the pipe and the joints from all disturbances.
4. Trenches shall be kept free from water and as dry as possible during bedding, laying and jointing and for as long a period of time as is required. When work is not in progress, open ends of the pipe and fittings shall be satisfactorily closed so that no trench water or other material will enter the pipe or fittings.

I. Backfilling:

1. The Contractor shall perform all backfilling that may be required for the installation of any and all parts of this Section.
2. Backfilling shall be performed in accordance with Section 19: Trenching, Backfilling and Compacting or as directed by the Engineer.
3. As soon as possible after the pipe joint is made, sufficient backfill material shall be placed along the pipe to prevent pipe movement off line or grade. Plastic pipe shall be completely covered to prevent damage from ultraviolet light. However, it is intended that all pipe joints be exposed at the time of the pipe's pressure leakage test, so that any pronounce seepage may be observed. These joints (which were not observed to have leaked or otherwise be defective) shall be recovered immediately after the test is completed.

- J. Valves: Prior to installation, valves shall be cleaned of all foreign matter and inspected for damage. Valves shall be fully opened and closed to ensure that all parts are properly operating. Valves shall be installed as shown on the drawings. Valves shall be installed in valve vaults and manholes, where so indicated.
- K. Valve Boxes: Valve boxes shall be installed over each outside, buried valve, unless otherwise indicated. Valve boxes shall be centered over the valve. Fill shall be carefully tamped around each valve box to a distance of 4 feet on all sides or to undisturbed trench face, if less than 4 feet.
- L. Coating and Lining: Flaws and holidays in the coating or lining of the pipe, fittings and the pipe joint shall be repaired such that the repaired areas will be at least equal thickness to the minimum required for the pipe and fitting.
- M. Clean Up: The Contractor shall clean up and dispose of all excess excavation, material, remove asphalt and concrete, trash, wood forms, and other debris and restore the job site to a condition acceptable to the Engineer and City. Pipe laying operations shall not be permitted to extend excessive distances ahead of cleanup. Unless otherwise directed by the Engineer or City, cleanup activities shall not lag behind pipe installation by more than 500 feet.
- N. Plugs, Caps, Blind Flanges and Anchorage: Standard plugs shall be inserted into the bells of all dead end pipes, tees, or crosses; spigot ends shall be capped, flanged ends shall have suitable blind flanges. Mains that are to be abandoned shall be cut at the connection point. The connection point shall be plugged with appropriate filling.
- O. Temporary Plugging:
 - 1. Installed piping systems shall be temporarily plugged at the end of each day's work, in other interruption, to the progress on a given line. Plugging shall be installed in a manner satisfactory to the City Engineer, and it shall be adequate to prevent entry of animals into the pipe or the entrance or insertion of water or deleterious materials.
 - 2. Plugs installed for pressure testing shall be fully secured and blocked to withstand the test pressure.
 - 3. Where plugging is required because of contract division or phasing for later connection, the ends of such lines shall be equipped with a permanent type plug or blind flange. Installation or removal of such plugging shall be considered incidental to the Work.

- P. Flanged Joints: Care shall be taken in bolting flanged joints that there is no restraint on the opposite end of the piece which would prevent pressure from being evenly and uniformly applied upon the gasket. The pipe or fitting must be free to move in any direction while bolting. Bolts shall be gradually tightened, each in turn, at a uniform rate of gasket compression around the entire flange.
- Q. Pipe Laying in Cinders: Where pipe must be laid through cinder fill, garbage dumps, slag piles, or where harmful corrosive conditions exist in the soil or backfill, special protection shall be provided for the pipe by the placing of sand or limestone screenings from a point 10 inches below the pipe to 10 inches above the pipe for the full width of the trench, adequately tamped to provide support for the pipe. Polyethylene encasement shall be used when called for by the Engineer.
- R. Turbidity Control: The Contractor shall take adequate precautions to minimize siltation and bank erosion in waterways. Contractor must control turbidity on subaqueous crossing or bank work so that it does not exceed established background turbidity by more than the storm water discharge permit. A turbidity barrier shall be used for all subaqueous and bank work. This shall be done by the use of four turbidity screens suspended by floats or other methods approved by the City Engineer.
- The turbidity screens shall be spaced 25' feet apart, two screens on each side of the crossing. Discharges shall conform to the Storm Water Pollution Prevention Plan and conditions of the generic permit for storm water discharge for construction activities.
- S. Conformity with Permits and Regulations.
- The Contractor shall comply with all regulations, conditions and other requirements promulgated under these permits or by these or other governmental agencies having jurisdiction over the Work; the cost of all such compliance having been included in amounts bid and as shown in the Contract.
- T. Restrained Joints:
1. Restrained joints shall be provided as shown on the plans or as approved by the Engineer. Restrained joint lengths for fittings are shown on the detail sheets of the project plans.

2. Restrained joints shall be constructed using pipe and fittings with restrained "locked-type" joints and the joints shall be capable of holding against withdrawal for line pressures up to 150 psig. Mega-lug restraints as manufactured by EBBA Iron, Inc., may be used when approved by the Engineer to restrain fittings.
3. Restrained pipe joints that achieve restraint by incorporating cut sections in the wall of the pipe shall have a minimum wall thickness at the point of cut out that corresponds with the minimum specified wall thickness for the rest of the pipe.

U. Thrust Restraint:

Pipe anchors shall be spaced to divide pipe into sections. Anchors shall be located at valves, changes in direction of piping, and major branch connections. Anchors shall be of a type recommended by the pipe manufacturer and reviewed by the City Engineer.

On all piping, where sleeve type couplings and flanged adapters are located near fittings or valves, tie rods shall span across the coupling as specified herein to restrain movements of the pipe along its axial direction. Such restraints can be deleted if both ends of the pipe are anchored in a concrete structure with no fitting or valve occurring within the span length, in the suction piping to a pump where the coupling is between the pump and valve, or when the water pressure measured at the crown of the pipe is less than five (5) feet.

All sleeve type couplings shall be harnessed except where noted. The harnessing shall be as shown on the drawings or as specified herein. Harnesses for steel pipe shall be in accordance with AWWA Manual M11 for the pipe size and pressure, working or test whichever is greater.

Harnesses for ductile iron pipe shall be tie rods spanning between adjacent flanges. Friction clamps shall not be permitted. The size and number of tie rods shall be the same as for steel pipe for the same pressure and pipe size.

Where the distance between adjacent flanges is in excess of ten (10) feet or where a harness cannot be used, the pipe supports adjacent to the coupling shall restrain the piping preventing any linear or angular movement resulting in the pipe separating from the coupling or misalignment in the joint.

Where expansion joints are used, control units shall be provided. All tie rods and control units shall be installed in accordance with to the manufacturer's recommended procedures.

Tie rods and associated hardware shall be 316 stainless steel.

In general, all valves and fittings shall be restrained in an approved manner such that the unbalanced force developed at them shall be supported independent of the piping system.

22.10 REPAIRS TO BROKEN PIPE

Any section, or sections, of force main which does not fully comply with the requirements of the leakage test, as specified, shall be satisfactorily repaired by the Contractor at this expense, and additional tests shall be made until the specified allowable leakage has been fully satisfied.

Where leakage exceeds the allowable limits specified herein, the defective pipe, joints, or other faulty construction shall be located and repaired by the Contractor. If the defective portions cannot be located, the Contractor shall remove and reconstruct as much of the work as is necessary in order to conform to the specified allowable limits.

Where cracks or ruptures develop in the pipe after installation, the entire length of pipe, to a distance of at least 3 feet beyond the pipe joint on each side of the damage area, shall be re-excavated. The pipe shall be replaced, or if approved, repaired in a suitable manner. Details of repairs shall be submitted for record.

22.11 RETESTING

If any deficiencies are revealed during any test, such deficiencies shall be corrected and the tests shall be reconducted until the results of the tests are within specified allowances, without additional cost to the City.

PIPE AND FITTINGS END OF SECTION TWENTY-TWO

SECTION 23 CHECK VALVES AND PLUG VALVES

- A. Check valves shall be of the heavy duty, outside lever and weight type and shall be manufactured by GA Industries, Inc.
- B. Check valves shall exceed the requirements of AWWA C508. Valves shall have unobstructed flow, adjustable counter weight lever arm to adjust closing, a heavy duty body of high-strength cast iron conforming to ASTM A126 Class b with integral flanges, faced and drilled per ANSI B16.1 Class 125, suitable for horizontal or vertical installation a bronze to

Buna-n seat. The pivot shaft shall be stainless steel. Valves shall be designed for outdoor, valve pit use.

- C. Valve shall have flanged end connections.
- D. The valve body shall be full waterway type, designed to provide a net flow area not less than the nominal inlet pipe size when swung open no more than 25 degrees. The valve shall have replaceable stainless steel body seat, a cast iron disc faced with a renewable resilient seat ring of rubber or other suitable material and held in place by stainless steel screws.
- E. The disc arm shall be ductile iron or steel, suspended from and keyed to an austenitic stainless steel shaft which is completely above the waterway and supported at each end by heavy bronze bushings. The shaft shall rotate freely without the need for external lubrication. The shaft shall be sealed where it passes through the body by means of a stuffing box and adjustable packing. Simple O-ring shaft seals are not acceptable.
- F. The valves shall swing open smoothly at pump start and close quickly upon pump shutdown to prevent flow reversal. When closed, the valve shall seat drop tight.

SECTION 23: PLUG VALVES

GENERAL

23.01 SECTION INCLUDES

- A. Plug valves.
- B. Valve boxes.

23.02 SUBMITTALS

- A. Submit detailed Shop Drawings in accordance with Section 12. Clearly indicate make, model, location, type, size and pressure rating. Submit copies of valve ordering schedule for approval before ordering valves.
- B. Detailed manufacturer's information for valves and valve boxes.
- C. Certified copies of reports covering proof of design testing and that the valve has passed its routine pressure and leakage tests at the factory.

23.03 REFERENCES:

A.	AWWA	American Water Works Association
B.	ASTM	American Society for Testing Materials
C.	FS	Federal Specification
D.	NSF	National Sanitation Foundation

23.04 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and install complete and ready for operation all valves and appurtenances as shown on the Drawings and as specified herein.
- B. All valves and appurtenances shall be of the size shown on the Drawings and as far as possible all equipment of the same type shall be from one manufacturer.
- C. All valves and appurtenances shall have the name of the maker, year of manufacture, valve size, flow directional arrows, and the working pressure for which they are designed cast in raised letters upon some appropriate part of the body.
- D. All exposed valves, where applicable, shall have "open-closed" position indicators. The position indicators shall be conveniently located for easy visibility.
- E. All buried valves shall open left (counterclockwise). Insofar as possible, all valves shall open counterclockwise.

PRODUCTS

23.05 DELIVERY, STORAGE AND HANDLING

Carefully unload valve without dropping them. Store in a manner that will keep them clean and protected from the weather. The procedures regarding unloading, inspection, storage and where applicable installation, described in the Appendix of AWWA C500 entitled "Installation, Operation and Maintenance of Gate Valves" shall be used for all valves, as applicable. Carefully protect all surface coatings.

PRODUCTS

23.06 GENERAL

- A. Provide valves of same manufacturer throughout, where possible.
- B. Submit detailed Shop Drawings in accordance with Section 12. Clearly indicate make, model, location, type, size and pressure rating.
- C. Approved manufacturer: DeZurik (Series 100), (Ballcentric Type) (Full Port).
- D. Linings and metallurgy for use with raw sewage.

23.07 VALVE CONNECTIONS

- A. Provide valves suitable to connect to adjoining piping, as specified for pipe joints. Use pipe size valves.
- B. Use mechanical joints with Mega-lug restraint system for buried valves, flanged for exposed valves and valves in the Valve Vault.

23.08 PLUG VALVES

- A. Valves shall be of the non-lubricated, eccentric type, standard port, with resilient faced plugs and shall be furnished with end connections as shown on the plans. Flanged valves shall be faced and drilled to the ANSI 125/150 pound standard. Mechanical joint ends shall be to the AWWA Standard C-111. Bell ends shall be to the AWWA Standard C-100, Class B. Screwed ends shall be to the NPT standard for all valves furnished.
- B. Plug valves shall be tested in accordance with AWWA C-504, Section 5. Each valve shall be performance tested in accordance with Paragraph 5.2 and shall be given a leakage test and hydrostatic test as described in Paragraphs 5.3 and 5.4. The leakage test shall be applied to the face of the plug tending to unseat the valve. The manufacturer shall finish certified copies of reports covering proof of design testing, as described in Section 5.5, for all valves furnished.
- C. Valve bodies shall be of ASTM A-126, Class B semi-steel, 31,00 psi tensile strength minimum in compliance with AWWA Standard C-507, Section 5.1, and AWWA Standard C-504, Section 6.4. All exposed nuts, bolts, springs, washers, etc., shall be Type 316 stainless steel. Resilient plug facings shall be of Hycar or Neoprene.

- D. Joint ends as detailed on the drawings or to conform to the pipe line in which the valve is to be installed. Valve port areas of 24-inch diameter and larger valves to be 100% full pipe area. Port areas of 4-inch to 20-inch diameter valves to be at least 80% of full pipe area. All valves 4-inches and larger are to be of the bolted bonnet design. Design valves so that they can be repacked without removing bonnet from valve. Provide adjustable multiple U-ring type packing. Zinc plate all exposed nuts, bolts, springs and washers. Buried or submerged valves are to have stainless steel nuts, bolts, springs and washers.

Design valves for tight shutoff with pressure in either direction. Prior to shipment from the factory, test each valve by submitting it to a hydraulic pressure equal to twice the specified working pressure: 150 psig minimum design working pressure.

PLUG VALVE Cv FLOW COEFFICIENTS TABLE

Valve Size	Cv Coefficients Range Percent Open 10%	Cv Coefficients Range Percent Open 100%
4"	20	560
5" and 6"	41	1,180
8"	71	2,030
10"	110	3,130
12"	145	4,140
14"	193	5,500
16"	256	7,300
18"	336	9,600
20"	455	13,000

- E. Valves shall be furnished with permanently lubricated stainless steel or oil-impregnated bronze upper and lower plug stem bushings. These bearings shall comply with Standard C-507, Section 8, Paragraphs 8.1, 8.3, 8.5 and with AWWA Standard C-504, Section 10.
- F. Seats in 4" and larger valves shall have a welded-in overlay of 90 percent pure nickel content on all surfaces contacting the plug face which comply with AWWA Standard C-507, Section 7, Paragraph 7.2, and with AWWA Standard C-504, Section 9, Paragraph 9.4.
- G. Valve shaft seals shall be adjustable and comply with AWWA Standard C-507, Section 10 and with AWWA C-507, Section 11. Shaft seals shall be of multiple V-ring type and shall be capable of being adjusted or replaced without the bonnet or plug being removed from the valve with the valve in the open position under pressure.

- F. Manual valves shall have lever or gear actuators and tee wrenches, extension stems, floor stands, etc., as indicated on the plans.
- I. Plug valves installed such that actuators are 7 feet or more above the floor shall have chain wheels.
- J. Where shown on the Drawings, exposed plug valves shall be installed with extended shafts and actuators. Actuators for extended shafts shall be mounted on floor stands, where indicated on the Drawings, or shall be removable hand wheels where floor stands are not called for. Six-inch sleeves shall be provided for extended shafts in all floors; where necessary covers shall be provided. Shafts shall be of adequate strength to operate the valve and shall be 304 stainless steel where submerged and carbon steel elsewhere. Floor stands and covers, where called for, shall be cast iron. Floor stands shall be equipped with valve position indicators.
- K. Valve Actuators:
 - 1. Actuators shall be capable of seating and unseating the disc against the full design pressure and velocity, as specified for each class, into a dry system downstream, and shall transmit a minimum torque to the valve.
 - 2. Actuators shall conform to the requirements of Section 3.8 of the AWWA Standard Specifications for Rubber Seated Butterfly Valves, Designation C-504, insofar as applicable and as herein specified.
 - 3. Actuators shall be rigidly attached to the valve body. Manual actuators for valves up to 6-inches in diameter and gear actuators on valves 6-inches in diameter and larger.
 - 4. Manual actuators shall have permanently lubricated, totally enclosed gearing with hand wheel for exposed valves and tee wrenches and operating nuts for buried valves and a gear ratio that is sized on the basis of actual line pressure and velocities.
 - 5. All gearing shall be enclosed in a semi-steel housing and be suitable for running in a lubricant with seals provided on all shafts to prevent entry of dirt and water into the actuator.
 - 6. Actuators shall be equipped with mechanical stop-limiting locking devices to prevent over travel of the disc in the open and closed positions and, for exposed valves: hand wheels and position indicators. All valves shall turn counterclockwise to open valves.

7. Manual actuators shall be of the traveling nut, self-locking type and shall be designed to hold the valve in any intermediate position between fully open and fully closed without creeping or fluttering.
8. Valves located above grade shall have hand wheel and position indicator, and valves located below grade shall be equipped with a 2" square AWWA operating nut located at ground level and cast iron extension type valve box. Valve actuators shall conform to AWWA C-504, latest revision. Enclose gearing and run oil in seals on all shafts to prevent entry of dirt and water into the actuator. Furnish shaft bearings in the actuator with permanently lubricated bronze bushings
9. Valve packing adjustment on non-submerged valves must be accessible without removing the actuator from the valve.
10. On valves and actuators for below ground and submerged service, provide seals on all shafts and gaskets on valve actuator covers to prevent the entry of water.
11. Enclose actuator mounting brackets for below ground and submerged surfaces and have gasket seals.
12. All exposed valve nuts, bolts, springs and washers shall be Type 316 stainless steel.
13. All actuator shafts shall be supported on permanently lubricated bronze bearings. Actuators shall clearly indicate valve position and an adjustable stop shall be provided to set closing torque.
14. Valve packing adjustment shall be Type 316 stainless steel. Valve packing adjustment shall be accessible without disassembly of the actuator.
15. Valves and gear actuators for buried or submerged service shall have seals on all shafts and gaskets on the valve and actuator covers to prevent entry of water and/or dirt.
16. Actuator mounting brackets for buried or submerged service shall be totally enclosed and shall have gasket seals.
17. All buried or exposed pipe connection nuts, bolts, and washers shall be Type 316 stainless steel or low alloy, high-strength steel conforming to ANSI B16.1 for a class 125 rating.

18. All buried valves shall be deemed to also be fully submerged.
19. Extension stems shall be provided and installed on all valves in buried locations and where indicated on the drawings. Extension stems shall be fabricated from solid stainless steel shafting not smaller in diameter than the stem of the valve or from stainless steel pipe having an internal diameter not smaller than the diameter of the valve stem. Stem couplings shall be both threaded and keyed to the coupled stems and shall be of approved design and construction. Pipe couplings will not be acceptable. Extension stems for buried valves shall extend to within six inches of the surface of the ground. Each extension stem shall be connected to the valve operator with a suitable universal joint type of coupling.

All connections shall be pinned. Each extension shall be provided with spacers which will center the stem in a valve box having an inside diameter of 6 inches, and shall be equipped with a standard AWWA wrench nut as described in AWWA C500/C509, except where hand wheels are indicated on the drawings.

23.09 VALVE BOXES

- A. Cast iron construction, adjustable type, as shown.
- B. Cast in the cover the word "SEWER".

23.10 SHOP PAINTING

Ferrous surfaces of valves and appurtenances shall receive a coating of rust-inhibitive primer as specified in Section 25. All pipe connection openings shall be capped to prevent the entry of foreign matter prior to installation.

23.11 INSTALLATIONS

- A. All valves shall be manually opened and closed before installation to check their operation, and the interior of the valves shall be cleaned. Valves shall be placed in the positions shown on the Drawings. Joints shall be made as directed under the piping specifications.
- B. Install valves in the manner and at locations shown on the drawings. Valves shall be bedded on a compacted bed of broken stone or concrete, as shown or required, over compacted subgrade.

- C. Install valves with stems upright or horizontal, not inverted.
- D. The height of the buried valve and its supporting foundation shall be such as to conform to the height of the connecting pipe, so that there will be no strain on the joints.
- E. Provide valve boxes for all buried valves. Depth of box to be suitable for depth of the valve below grade. The riser shall rest on the valve and be adjusted so that the cover may be set flush with existing sidewalk, paved streets, unpaved streets, driveways, road right-of-ways, etc. The valve box shall be set to allow equal movement above and below finished grade when located in utility easements not subject to street traffic. The riser shall be centered over the valve. The entire assembly shall be plumb. Stainless steel extension stems shall be used to bring the operating nut 18 to 24-inches from finish grade.
- F. All buried valves shall be provided with valve boxes. The riser shall rest on the valve and be adjusted so that the cover may be set flush with existing sidewalk, paved streets, unpaved streets, driveways, road rights-of-way, etc. The valve box shall be set to allow equal movement above and below finished grade when located in utility easements not subject to street traffic. The riser shall be centered over the valve. The entire assembly shall be plumb. Mount boxes with the centerline of the box coincidental with the perpendicular to the centerline of the valve.
- G. Mount valves so that the valves shall normally be in the unseating condition when closed, thereby minimizing the build-up of solids in a closed valve, as is generally shown on the drawings.
- H. Valves which are mounted with a horizontal centerline shall have the plug at the top when open.

23.12 FIELD PAINTING

All metal valves and appurtenances specified herein and exposed to view will be painted as part of the work in Section 25. The paint for the prime and finish coat shall be compatible. Repair any damage to coatings and linings, both before installation and prior to backfill.

23.13 FIELD OBSERVATIONS

All valves constructed underground will be observed, at the option of the City Engineer, prior to backfilling.

23.14 FIELD TESTS

All valves shall be pressure and leakage tested along with their respective pipelines.

**CHECK VALVES AND PLUG VALVES
END OF SECTION TWENTY-THREE**

SECTION 24: SEWAGE AIR RELEASE VALVES & APPURTENANCES

GENERAL

24.01 SECTION INCLUDES

- A. Air Release valves.
- B. Ball valves.
- C. Relevant appurtenances and accessories.

24.02 SUBMITTALS

- A. Submit detailed Shop Drawings in accordance with Section 12. Clearly indicate make, model, location, type, size and pressure rating. Submit copies of valve ordering schedule for approval before ordering valves.
- B. Detailed manufacturer's information for valves.
- C. Certified copies of reports covering proof of design testing and that the valve has passed its routine pressure and leakage tests at the factory.

24.03 REFERENCES

A.	AWWA	American Water Works Association
B.	ASTM	American Society for Testing Materials
C.	FS	Federal Specification
D.	NSF	National Sanitation Foundation

24.04 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and install complete and ready for operation all valves and appurtenances as shown on the Drawings and as specified herein.

- B. All valves and appurtenances shall be of the size shown on the Drawings and as far as possible all equipment of the same type shall be from one manufacturer.
- C. All valves and appurtenances shall have the name of the maker, year of manufacture, valve size, flow directional arrows, and the working pressure for which they are designed cast in raised letters upon some appropriate part of the body.
- D. All exposed valves, where applicable, shall have "open-closed" position indicators. The position indicators shall be conveniently located for easy visibility.
- E. Insofar as possible, all valves shall open counterclockwise.

24.05 DELIVERY, STORAGE AND HANDLING

Carefully unload valve without dropping them. Store in a manner that will keep them clean and protected from the weather. The procedures regarding unloading, inspection, storage and where applicable installation, described in the Appendix of AWWA C500 entitled "Installation, Operation and Maintenance of Gate Valves" shall be used for all valves, as applicable. Carefully protect all surface coatings.

PRODUCTS

24.06 GENERAL

- A. Provide valves of same manufacturer throughout, where possible.
- B. Submit detailed Shop Drawings in accordance with Section 12. Clearly indicate make, model, location, type, size and pressure rating.
- C. Linings and metallurgy for use with raw sewage.

24.07 VALVE CONNECTIONS

- A. Provide valves suitable to connect to adjoining piping, as specified for pipe joints. Use pipe size valves.
- B. Use screwed connections and Teflon pipe sealant tape.

24.08 INSTALLATIONS

- A. All valves shall be manually opened and closed before installation to check their operation, and the interior of the valves shall be cleaned. Valves shall be placed in the positions shown on the Drawings. Joints shall be made as directed under the piping specifications. Install valves in the manner shown on the drawings.
- B. Install valves with stems upright or horizontal, not inverted.
- C. Air Valve Locations: After the mains have been installed the Contractor shall install the air release valves in accordance with the manufacturer's recommendations. The connection to the main shall be by a malleable iron double strap service or tapping saddle, as shown on the Drawings. These connections to the main shall be at high points as determined by the Contractor and approved by the City Engineer. Should re-excavation of the main be necessary to install the air release valve connection, cost for this work and subsequent backfill and restoration work shall be included in the appropriate price bid for air release valves.
- D. Support the force main from the floor inside the manhole.

24.09 FIELD TESTS

All valves shall be pressure and leakage tested along with their respective pipelines. Additionally, the valve shall be demonstrated to expel air and seal after the air is expelled. The flushing system shall also be demonstrated to function properly. All leaks shall be repaired and lines retested as approved by the Engineer.

**SEWAGE AIR RELEASE VALVES & APPURTENANCES
END OF SECTION TWENTY-FOUR**

SECTION 25: PROTECTIVE COATINGS

GENERAL

25.01 WORK INCLUDED

- A. This Section covers the work required to provide all labor, materials, equipment and incidentals to perform all of the necessary surface preparation and painting required to complete this contract in its entirety.

- B. It is the intent of this specification to paint all concrete, exposed miscellaneous ferrous metals, pipes, fittings, valves, equipment and all other work obviously required to be painted unless otherwise specified. Minor items omitted in the schedule of work shall be included in the work of this Section where they come within the general intent of the Specifications as stated herein.

- C. The following surfaces or items are not required to be coated:
 - 1. Aluminum: gratings, checkered plates, hatches, handrails, toe boards, stairways and walkways.
 - 2. Stainless Steel, brass and bronze.
 - 3. Piping buried in the ground or embedded in concrete.
 - 4. Ducts, pipes and other miscellaneous items covered with insulation or plastic coated.
 - 5. Concealed surfaces of pipe and crawl spaces.
 - 6. Finish hardware.
 - 7. Non-ferrous architectural metals, unless specifically noted otherwise.
 - 8. Packing glands and other adjustable parts and nameplates of mechanical equipment.
 - 9. Concrete slabs and equipment pads.

25.02 ABBREVIATIONS

The abbreviations and definitions listed below, when used in this Section, shall have the following meanings:

A.	ANSI	American National Standards Institute
B.	ASTM	American Society for Testing Materials
C.	AWWA	American Water Works Association
D.	DFT	Dry Film Thickness
E.	FPP	Fiberglass Reinforced Plastic
F.	HCl	Hydrochloric Acid
G.	MDFT	Minimum Dry Film Thickness
H.	MDFTPC	Minimum Dry Film Thickness Per Coat
I.	mil	Thousandths of an Inch
J.	MIL-P	Military Specification - paint
K.	NACE	National Association of Corrosion Engineers

L.	NSF	National Sanitary Foundation
M.	OSHA	Occupational Safety and Health Act
N.	SFPG	Square Feet Per Gallon
O.	SFPGPC	Square Feet Per Gallon Per Coat
P.	SP	Surface Preparation
Q.	SSPC	Steel Structures Painting Council

25.03 SUBMITTALS

- A. Submittals will be made with the coating system data sheet included at the end of this section.
- B. The following shall be submitted for each proposed coating system; manufacturer's specifications, surface preparation details, application procedures, technical data sheets, and dry film thickness or coverage.
- C. Unless otherwise specified, hereinafter and before any painting work is started, prepare with type of paint and application specified, and on similar substrate to which paint is to be finally applied, samples not less than 8" in size.
- D. Furnish additional samples as required until colors, finishes and textures are acceptable. Retain accepted samples to be used as the quality standard for final finishes.
- E. Before proceeding with the work under this Section, finish one complete space or item of each color scheme required showing selected colors, finishes and textures are acceptable. Retain accepted samples to be used as the quality standard for final finishes.
- F. Schedule of Painting Operations: The Contractor shall submit for review a complete schedule of painting operations 10 days after the Notice to Proceed.

25.04 QUALITY ASSURANCE

- A. The paint manufacturer shall provide a representative to visit the job site at intervals during surface preparation and painting as may be required for product application quality assurance and to determine compliance with manufacturer's instructions and these Specifications, and as may be necessary to resolve field problems attributable to, or associated with, the manufacturer's products furnished under this Contract.
- B. A site visit report shall be prepared and submitted by paint manufacturer's representative documenting compliance with the manufacturer's recommended applications.

25.05 INSPECTION

- A. The Contractor shall give the City Engineer a minimum of three (3) days advance notice of the completion of any surface preparation work or start of coating application work.
- B. Before application of the prime coat and each succeeding coat, all surfaces to be painted shall be inspected by City Engineer. Any and all defects or deficiencies shall be corrected by the Contractor before application of any subsequent coating.
- C. Coating applications shall be checked for required MDFT as per these specifications. All coated surfaces failing to meet the MDFT requirements shall be rejected.
- D. For all coatings subject to immersion, full cure must be obtained for the completed system. Consult the coating manufacturer's written instructions for these requirements. The coating shall not be immersed for any purpose until completion of the curing cycle.
- E. Inspection by the Engineer of the waiver of inspection of any particular portion of the work shall not be construed to relieve the Contractor of his responsibility to perform the work in accordance with these specifications.

25.06 PAINT DELIVERY AND STORAGE

All materials shall be new and shall be delivered to the project site in unopened containers that plainly show, at the time of use, the designated name, date of manufacture, color, and name of manufacturer. Paints shall be stored in a suitable protected area that is heated or cooled as required to maintain temperatures within the range recommended by the paint manufacturer.

25.07 PROJECT SITE CONDITIONS

The location of this project in Broward County, Florida, requires observance and conformance with EPA Volatile Organic Compound (VOC) restrictions. EPA limits the content of VOC's in painting materials to 2.5 lbs./gallon. Information regarding the VOC content of proposed paints will be required during submittals.

25.08 WARRANTY

Contractor shall warrant to the Owner and guarantee the work under this Section against defective workmanship and materials for a period of two (2) years commencing on the date of Final Acceptance of the Work.

PRODUCTS

25.09 GENERAL

Products containing lead will not be allowed. Oil shall be pure boiled linseed oil.

25.10 PAINT MATERIALS

- A. Products shall be as manufactured by Tnemec Company, Inc., or approved equals.
- B. The following paint products are by Tnemec Company, Inc., as applicable, and are used for the basis of establishing the desired quality expected for the project.

PRODUCT TYPE	TNEMEC PRODUCT NAME
High-Build Acrylic Polyurethane	Series 75 Endura-Shield
Coal Tar Epoxy	Tnemec-Tar 46-413 or 46H-413
Polyamine Epoxy (Non Potable)	Series 104 H.S. Epoxy
Vinyl Ester	Series 120 Vinester
Filler and Surfacer	Series 120-5003 Vinester F&S
Polyamide Epoxy	Series 66 or 69 Hi-Build Epoxoline
Polyamide Epoxy Floor System	Series 67 and S67, Tnemec-Tread
Acrylic Emulsion	Series 180 Tnemec-Crete
Modified Epoxy Masonry Filler	Series 54-562
Waterborne Acrylic Epoxy	Series 113 H.B. Tnemec
Vinyl Acrylic	Series 51-792 PVA
Aliphatic Acrylic Polyurethane	Series 73, Endura-Sheild

25.11 COLORS

- A. Provide as selected by the City.
- B. Formulate with colorants free of lead, lead compounds, or other materials which might be affected by presence of hydrogen sulfide or other gas likely to be present at the project.
- C. Proprietary identification of colors if for identification only. Any authorized manufacturer may supply matches.

25.12 TESTING GAUGES

- A. Furnish a magnetic type dry film thickness gauge, to test coating thickness specified in mils, as manufactured by:

1. Nordson Corp., Anaheim, CA, Mikrotest
 2. Or equal
- B. Furnish an electrical holiday detector, low voltage, wet sponge type to test finish coat, except zinc primer, high-build elastomeric coatings, and galvanizing, for holidays and discontinuities as manufactured by:
1. Tinker and Razor, San Gabriel, CA, Model M-1
 2. Or equal
- C. Furnish a high voltage holiday detector for elastomeric coatings in excess of 25 mils dry film thickness. Unit to be as recommended by the coating manufacturer.

EXECUTION

25.13 PROTECTION OF SURFACES NOT TO BE PAINTED

- A. Mask or otherwise protect hardware, lighting fixtures, switch plates, aluminum surfaces, machined surfaces, couplings, shafts, bearings, nameplates and other surfaces not intended to be painted which cannot be removed.
- B. Provide drop cloths to prevent paint materials from falling on or marring adjacent surfaces.
- C. Protect working parts of mechanical and electrical equipment from damage during surface preparation and painting processes. Openings in motors shall be masked to prevent paint and other materials from entering motors.

25.14 ENVIRONMENTAL CONDITIONS

Coatings shall not be applied in temperatures exceeding the manufacturer's recommended maximum and minimum allowable, nor under adverse conditions such as dust, smoke-laden atmosphere, damp or humid weather.

25.15 SAFETY

- A. Coating shall be performed in strict accordance with the safety recommendations of the coating manufacturer; with the safety recommendations of the national Association of Corrosion Engineers contained in the publication, Manual for Painter Safety; Federal, state and local agencies having jurisdiction.
- B. Ultimate responsibility for safety is Contractor's.

25.16 PREPARATION OF SURFACES

A. All surfaces to be coated shall be prepared as specified herein and shall be dry and clean before coating. Specific surface preparation shall be specified for the individual coating systems.

B. Steel shall be blasted unless otherwise specified. Blasting shall be done with a centrifugal wheel or compressed air blasting equipment, using proper abrasives to attain an average profile depth of 1.5 mils.

Do not re-use sand or flint abrasives. Short abrasives must be thoroughly clean of contamination before re-use. Blow dust and grit from surface with clean, dry air. Coat within 8 hours or before rust contamination occurs.

C. All concrete shall have cured for 28 days.

25.17 COATING SYSTEM INDEX

The following is a general index to the coating system descriptions described herein:

<u>System Number</u>	<u>Title</u>
1	Exterior of New Pre-Cast Concrete
2	Interior of new Pre-Cast Concrete
3	Exposed Metal - Highly Corrosive
4	Submerged Metal - Domestic Sewage
5	Exposed Metal - Moderate Corrosive Conditions
6	Existing Concrete Tank Lining - Domestic Sewage
7	Existing Concrete Exposed
8	Exposed Concrete Floor
9	Concrete Floors
10	Exterior Concrete
11	Interior Concrete and Masonry Block Walls
12	Interior Gypsum Drywall
13	Metal Stairs
14	Aluminum and Dissimilar Metal Insulation

25.18 COATING SYSTEMS

A. SYSTEM NO. 1 - EXTERIOR OF NEW PRE-CAST CONCRETE

Surface Preparation:	All curing oils, form oils, laitance, soluble salts and loose concrete must be removed. Concrete must be dry and thoroughly clean before coating.
Prime Coat:	None required.
Top Coat:	Coal tar epoxy at 8.0 mils DFT per coat
MDFT:	6 mils DFT for two-coat system. Allow minimum 24 hours drying time between coats.
Color:	First Coat - Red Second Coat - Black

B. SYSTEM NO. 2 - INTERIOR OF NEW PRE-CAST CONCRETE

Surface Preparation:	Concrete: All curing oils, form oils, laitance, soluble salts and loose concrete must be removed. Concrete must be dry and thoroughly clean before coating. Concrete shall be cured 28 days Piping and Valves: Abrasive blast clean to an SSPC-SSP10 (near white metal).
Filler/Surfacer:	Concrete substrate surface with cracks and/or voids greater than 2" in depth or width or areas where underlying aggregate has been exposed shall be patched with filler and surfacer. Material shall be applied in accordance with the manufacturer's application instructions.
Prime Coat:	Vinyl Ester 12.0 to 18.0 mils DFT.
Top Coat:	Vinyl Ester 12.0 to 18.0 mils DFT.
MDFT:	Minimum 30 mils DFT for two-coat system. Time between coats and method of application shall be as per manufacturer's written instructions.
Color:	First Coat - Beige (5002) Second Coat - Gray (5001)

C. SYSTEM NO. 3 - EXPOSED METAL - HIGHLY CORROSIVE

Surface Preparation:	Abrasive blast clean to an SSPC-SP10 (near white metal).
Prime Coat:	Polyamine epoxy at 6.0 to 8.0 mils DFT.
Top Coat:	High build acrylic polyurethane at 2.0 to 4.0 mils DFT.
MDFT:	9 mils DFT for two-coat system.
Color:	As selected by Owner from manufacturer's standard available colors.

D. SYSTEM NO. 4 - SUBMERGED METAL - DOMESTIC SEWAGE

Surface Preparation:	Abrasive blast, or centrifugal wheel blast, SSPC-SP5.
Prime Coat:	Polyamide, anti-corrosive, epoxy primer, 1 coat, 2.5 MDFT
Top Coat:	Coat-tar epoxy, 2 coats, 16 MDFT.
MDFT:	18.5 mils MDFT for system.

E. SYSTEM NO. 5 - EXPOSED METAL - MODERATE CORROSIVE CONDITIONS

Surface Preparation:	Abrasive blast or centrifugal wheel blast SSPC-SP10.
Prime Coat:	Polyamide, anti-corrosive, epoxy primer, 1 coat, 2.5 MDFT
Top Coat:	Polyamide epoxy, Tnemec Series 66 or 69, 2 coats, 8 MDFT
MDFT:	10.5 mils DFT for three coats.

F. SYSTEM NO. 6 - EXISTING CONCRETE TANK LINING - DOMESTIC SEWAGE

Surface Preparation:	Abrasive blast, 4,000 psi (see Section 03700).
Surface Restoration:	Approved cement resurfacing treatment.
Prime Coat:	Coal-tar epoxy primer in accordance with manufacturer's recommendations (see Section 03700) compatible with surface restoration treatment.
Top Coat:	Coal-tar epoxy compatible with surface restoration treatment (see Section 03700).
MDFT:	60 MDFT for system.

G. SYSTEM NO. 7 - EXISTING CONCRETE EXPOSED

Surface Preparation:	Abrasive blast, 4,000 psi (see Section 03700).
Coating:	3 coats, Polyamide epoxy, Tnemec Series 66 or 69 Hi-Build Epoxoline
MDFT:	12 mils DFT for three-coat application.

H. SYSTEM NO. 8 - EXPOSED CONCRETE FLOOR

Surface Preparation:	Brush-off blast or acid etch.
Prime Coat:	1 coat Tnemec Series 67 Tnemec-Tread, 2 mils.
Top Coat:	2 coats Tnemec Series S67 Tnemec-Tread, MDFT 2 mils per coat.
MDFT:	6 mils DFT total system thickness.

I. SYSTEM NO. 9 - CONCRETE FLOOR

Surface Preparation:	Brush-off blast or acid etch, on paneled surfaces SS PL-SP2 or SP3 hand or power tool cleaning of failed surfaces.(*)
Prime Coat:	One thinned (20%) coat series 67 Tnemec-Tread apply at a minimum rate of 390 SF per gallon.
Top Coat:	One coat Series 67 Tnemec-Tread epoxy polyamide gloss, at a minimum rate of 260 SF per gallon.
	(*) Apply test patch on existing, painted surfaces to check adhesion.

J. SYSTEM NO. 10 - EXTERIOR CONCRETE

Surface Preparation:	Clean and dry, remove all loose material.
COATING:	2 coats Tnemec Series 180, Acrylic Emulsion minimum 170 SF per gallon.

K. SYSTEM NO. 11 - INTERIOR CONCRETE AND MASONRY BLOCK WALLS

Surface Preparation:	Clean and remove protrusions, loose materials, loose paint, oil, grease and other contaminants. Apply test patch to check adhesion on existing paint. Dry before application.
Prime Coat:	1 coat Tnemec 54-562 modified epoxy masonry filler. Apply at a minimum rate of 80 to 100 SF per gallon over block or porous concrete. Primer not required on dense concrete.
Top Coat:	1 coat Series 113 H.B. Tnemec - Tufcoat water-base acrylic epoxy. Apply at a minimum rate of 120 to 170 SF per gallon.

L. SYSTEM NO. 12 - INTERIOR GYPSUM DRYWALL

Surface Preparation:	Clean
Prime Coat:	1 coat Tnemec Series 51-792 PVA sealer, apply at a minimum rate of 400 SF per gallon.
Top Coat:	1 coat series 113 H.B. Tnemec - Tufcoat water-base acrylic epoxy. Apply at a minimum rate of 120 to 170 SF per gallon.

M. SYSTEM NO. 13 - METAL STAIRS

Surface Preparation:	SSPC-SP6 blast cleaning.
Prime:	Tnemec Series 66 Hi-Build Epoxoline, 3 mils MDFT.
Top Coat:	Tnemec Series 71 Endura Shield, 2 mils MDFT.

N. SYSTEM NO. 14 - ALUMINUM AND DISSIMILAR METAL INSULATION

Surface Preparation:	Roughened surface.
Top Coat:	Coal tar epoxy at 10.0 mils DFT.
MDFT:	10.0 mils DFT for one-coat system
Color:	Black

25.19 UNIDENTIFIED SURFACES

Any surfaces not specifically named in the schedule and not specifically excepted shall be prepared, primed and coated in the manner and with materials consistent with these Specifications. The Engineer shall select which of the manufacturer's products, whether the type is indicated herein or not, shall be used for such unnamed surfaces. This painting shall be done within the scope of the contract.

25.20 WORKMANSHIP

- A. On metal surfaces apply each coat of paint at the rate specified by the manufacturer to achieve the minimum dry mil thickness required. If material has thickened or must be diluted for application by spray gun, the coating shall built up to the same film thickness achieved with undiluted material. One gallon of paint as originally furnished by the manufacturer shall not cover a greater area when applied by spray gun than when applied unthinned by the application of an additional coat(s). On masonry, application rates will vary according to surface texture; however, in no case shall the manufacturer's stated coverage rate be exceeded. On porous surfaces, it shall be the painter's responsibility to achieve a protective and decorative finish either by decreasing the coverage rate or by applying additional coats of paint.
- B. All safety equipment shall be painted in accordance with OSHA Standards as approved.
- C. Materials shall be mixed in proper containers of adequate capacity. All materials shall be thoroughly stirred before use and shall be kept stirred while using. No unauthorized thinners or other materials shall be added to any paint.
- D. Only skilled painters shall be used on the work and specialists shall be employed where required.

- E. Steel members, metal castings, mechanical and electrical equipment and other metals, which are shop primed before delivery at the site, will not require a prime coat on the job. All piping and other bare metals to be painted shall receive one coat of primer before exposure to the weather, and this prime coat shall be the first coat as specified in the painting schedule.
- F. Finish surfaces shall not show brush marks or other irregularities. Undercoats shall be thoroughly and uniformly sanded with No. 00 sandpaper or equal to remove defects and provide a smooth, even surface.
- G. Before final acceptance of the work, all damaged surfaces of coatings shall be cleaned and repainted as directed by the City Engineer.

25.21 APPLICATION SCHEDULE

- A. System No. 1 - Exterior of new Pre-Cast Concrete - This system shall be used on the exterior of all new pre-cast concrete valve vaults, wet wells and manholes.
- B. System No. 2 - Interior of new Pre-Cast Concrete - This system shall be used in the interior of all new pre-cast concrete valve vaults, wet wells, manholes, and all interior ductile and cast iron piping and equipment. Pre-cast concrete shall be coated prior to installation. Coating shall extend through the pre-cast joints.
- C. System No. 3 - Exposed Metal - Highly Corrosive - This system shall be used on all metal surfaces exposed to weather including equipment, conduits, piping, exposed metal frames and elsewhere as scheduled. Galvanized piping does not require painting.
- D. System No. 4 - Submerged Metal - Domestic Sewage - This system shall be used for wet well piping, wet well ferrous metals, and below-grade valve pit piping.
- E. System No. 5 - Exposed Metal - Moderate Corrosive Conditions - This system shall be used for interior piping, structural steel and interior dry pit metals.
- F. System No. 6 - Existing Concrete Tank Lining - Domestic Sewage - This system shall be used in existing wet wells.
- G. System No. 14 - Aluminum and Dissimilar Metal Insulation - This system shall be used on all aluminum in contact with concrete. Insulate all contacting dissimilar metals with this system.

25.22 CLEAN UP

- A. It shall be the responsibility of the Contractor to collect and dispose of property, all waste materials from the site in accordance with all requirements of the Federal, state and local environment protection agencies.
- B. At completion of the work, remove all paint where spilled, splashed, splattered, sprayed or smeared on all surfaces, including glass, light fixtures, hardware, equipment, painted and unpainted surfaces.
- C. After completion of all paintings, the Contractor shall remove from the job site all painting equipment, surplus materials and debris resulting from this work.

25.23 MANUFACTURER'S SERVICES

Furnish paint manufacturer representative to visit job site at intervals during surface preparation and painting as may be required for product application quality assurance, and to determine compliance with manufacturer's instructions and these specifications, and as may be necessary to resolve field problems attributable to, or associated with, manufacturer's products furnished under this Contract.

**PROTECTIVE COATINGS
END OF SECTION TWENTY-FIVE**

SECTION 26: PUMP STATIONS SPECIFICATIONS

26.01 GENERAL

Furnish and install a complete non-clog sewage pumping system consisting of two Myers model 6VC non-clog sewage pumps, two Myers model SRA68 lift-out rail systems, stainless steel lifting bails, stainless steel lifting chains, stainless steel upper guide brackets, stainless steel anchor bolts, stainless steel guide pipe, stainless steel floatholder, four float switches, electrical control panel as shown on the project plans, and all other appurtenances to make a complete and functioning system for each station noted below.

26.02 OPERATING CONDITIONS

A. LIFT STATION #4

Pumps shall each have a capacity of 750GPM @ 54ft TH and shall use a 9" diameter impeller with a 20HP motor operating at 1750RPM, 460V, 3 phase, 60hz.

B. LIFT STATION #12

Pumps shall each have a capacity of 770GPM @ 44ft TH and shall use a 9" diameter impeller with a 20HP motor operating at 1750RPM, 460V, 3 phase, 60hz.

C. LIFT STATION #13

Pumps shall each have a capacity of 1000GPM @ 58ft TH and shall use a 10" diameter impeller with a 30HP motor operating at 1750RPM, 460V, 3 phase, 60hz.

D. MOTORS

Pump motors shall be of the sealed submersible type rated as noted in "OPERATING CONDITIONS". Motors shall be NEMA B type.

E. Stator windings shall be of the open type with Class H insulation good for 150°C maximum temperature. Winding housings shall be filled with a clean high-dielectric oil that lubricates bearings and seals and transfers heat from winding and rotor to outer shell. Air-filled motors which do not have the superior heat dissipating capabilities of oil-filled motors shall not be considered equal.

F. Motors shall have two heavy duty ball bearings to support pump shaft and take radial and thrust loads and a sleeve guide bushing directly above the lower seal to take radial load and act as flame path for seal chamber. Ball bearings shall be designed for 50,000 hours B-10 life. Stators shall be heat shrunk into motor housings.

G. Heat sensor thermostats shall be attached to and imbedded in the windings and shall be connected in series with the motor starter contactor coils to stop the motors if the temperature of the windings is more than 130°C. Thermostats shall reset automatically when the motor cools to a safe operating temperature. Three heat sensors shall be used. The common pump/motor shaft shall be type 416 stainless steel.

26.03 SEALS

- A. Motors shall be protected by two mechanical seals mounted in tandem with a seal chamber between the seals.
- B. Seal chambers shall be oil filled to lubricate the seal faces and to transmit heat from the shaft to the outer shell.
- C. Seal faces shall be carbon and ceramic and lapped to a flatness of one light band. Lower seal faces shall be silicon carbide.
- D. A double electrode shall be mounted in the seal chamber to detect any water entering the chamber through the lower seal.

26.04 IMPELLERS

- A. The impeller shall be ductile iron and of the 2 vane non-clog enclosed type. Vane inlet tips shall be carefully rounded to prevent stringy material from catching in vanes. Pump-out vane shall be used in front and back chamber.
- B. The impeller shall be dynamically balanced.
- C. The impeller shall be driven by stainless steel shaft key and impeller held in place with lock screw and washer.
- D. The impeller and motor shall be of the back-pull-out design and shall be able to be removed from the pump volute without disturbing the discharge piping.
- E. The impeller neck shall run in bronze wear ring that is pressed into volute case.

26.05 PUMP VOLUTES

- A. The pump volute shall be cast iron and have a flanged center line discharge.
- B. Discharge flanges shall be ANSI 6" standard with bolt holes straddling the center line of the flange.
- C. Bronze wear rings shall be pressed into the pump volutes to provide a sacrificial wear surface for the pump impellers.
- D. Wear rings shall be replaceable and shall be prevented from rotating via the use of appropriately placed stainless steel set screws.

26.06 PUMP AND MOTOR CASTINGS

- A. All castings shall be of high tensile cast iron and shall be treated with phosphate and chromate rinse.
- B. All fasteners shall be AISI type 302 stainless steel.

26.07 BEARING END CAPS

Upper motor bearing cap shall be a separate casting for easy mounting and replacement.

26.08 POWER CABLES

- A. Power cord and control cord shall be triple sealed. The power and control conductor shall be single strand sealed with epoxy potting compound and then clamped in place with rubber seal bushing to seal outer jacket against leakage and to provide for strain pull. A third sealing area shall be provided by a terminal board to separate the cable entry chamber from the motor chamber.
- B. Cords shall withstand a pull of 300 pounds.
- C. Insulation of power and control cords shall be type SOOW.
- D. Both control and power cords shall have a green carrier ground conductor that attaches to motor frame.

26.09 LIFTING BAILS

Pumps shall be fitted with stainless steel lifting bails.

26.10 LIFT-OUT RAIL SYSTEMS

- A. Pump rail systems shall be Myers model SRA68VC.
- B. Each lift-out rail system shall consist of: a ductile iron discharge base, cast iron pump attaching and sealing plate, cast iron pump guide plate, cast iron elbow, TRS200 stainless steel upper guide bracket, 2" schedule 40 stainless steel guide rails (2) , and stainless steel lifting chains. All exposed nuts, bolts, and fasteners shall be of 300 series stainless steel. No fabricated steel parts shall be used.

26.11 ELBOW

Discharge elbow shall be 6" x 8". Elbow shall bolt onto base and have standard 125 lb. flanges.

26.12 Rail systems requiring piping increasers to attach larger discharge pipe, which might interfere with pump installation and removal, will not be considered equal.

26.13 SEALING

- A. A sealing plate shall be attached to the pump.
- B. A simple downward sliding motion of the pump and guide plate on the guide rails shall cause the unit to be automatically connected and sealed to the base.
- C. The open face of the sealing plate shall have dove-tailed groove machined into the face to hold a sealing "o"-ring.
- D. The "o"-ring shall provide a redundant leak-proof seal at all operating pressures.

26.14 GUIDE RAILS

- A. Two rail pipes shall be used to guide the pump from the surface to the discharge base connection.
- B. The guide rails shall be 2 inch schedule 40 type 316 stainless steel pipe.
- C. The weight of the pump shall bear solely on the discharge base and not on the guide rails.
- D. Rail systems which require the pump to be supported by legs which might interfere with the flow of solids into the pump suction will not be considered equal.
- E. The guide rail shall be firmly attached to the access hatch frame via the use of 316ss anchor bolts.

26.15 LIFTING CHAIN

- A. An adequate length of type 316 stainless steel lifting chain shall be supplied for removing the pump.
- B. The chain shall be of sufficient length and shall include an adequate number of lifting rings for easy removal.

26.16 PUMP CONTROL PANEL

LIFT STATION #4

- A. Duplex control panel rated 20hp, 460v, 3 phase

LIFT STATION #12

- B. Duplex control panel rated 30hp, 460v, 3 phase

LIFT STATION #13

- C. Duplex control panel rated 40hp, 460v, 3 phase
- D. Each control panel shall be suitable for the duplex operation of two submersible sewage pumps with horsepower as noted above under "PUMP CONTROL PANEL" and shall be suitable for operation on a 480v, 3 phase, 60hz power supply. The control panel enclosures shall be rated NEMA 3R and be fabricated of type 316 stainless steel. The control panel enclosure shall include an enameled-steel removable backpanel, full aluminum inner dead-front door, rainshield, and padlockable hasp. Minimum enclosure size to be provided is 48"h x 36"w x 12"d.
- E. The control panel shall include the following as a minimum: main circuit breaker (35KAIC@480V), pump circuit breakers, 480x120V control transformer with primary and secondary fusing, control circuit breaker, duplex GFI receptacle with circuit breaker, NEMA-rated motor starters with thermal overload mechanisms, high water alarm light and horn with silence and test, duplex alternator with mode selector, elapsed time meters for each pump, lightning arrestor, surge arrestor, oil seal fail indication for each pump, 120V control circuitry and additional motor auxiliary, high water alarm and overload trip contact points.
- F. The control panel shall be manufactured and labeled in accordance with UL Standard for Safety 508A.
- G. The control panel manufacturer shall provide a signed quality control certificate indicating that the control panel has been powered and tested for proper control function prior to shipment.

26.17 LEVEL CONTROLS

Pump off, lead, lag and alarm levels shall be controlled by four (4) mercury tube float switches. Switches shall consist of a mercury tube switch sealed in a corrosion-resistant polypropylene housing with a minimum of 18 gauge, 2-wire, SJOW/A jacketed cable. The cable shall be of sufficient length to reach the control panel with no splices. The level controls shall be suspended from a stainless steel bracket so that adjustment or replacement may be done without the use of any tools.

**PUMP STATION
END OF SECTION TWENTY-SIX**

SECTION 27: DEMOLITION

27.01 GENERAL

Contractor shall provide all equipment, materials and labor to demolish the pump stations as noted herein.

1. Remove top slab
2. Remove all electrical equipment and piping and return to City for Recycling.
3. Drill holes in floor and sides to prevent flotation
4. Fill dry pit with ¾ inch ballast rock to grade.
5. Remove all above ground appurtances

**DEMOLITION
END OF SECTION TWENTY-SEVEN**

SECTION 28: SANITARY STRUCTURE INTERIOR REHABILITATION

GENERAL

28.01 Summary

This specification shall govern all labor, materials, equipment and appliances necessary for sanitary pump station interior rehabilitation for the purpose of eliminating infiltration and inflow, providing corrosion protection, repair of cracks and voids and restoration of the structural integrity of the pump station wet well as a result of the application of a monolithic fiber-reinforced structural/structurally enhanced pure calcium aluminate cementitious liner to the wall, ceiling and bench surfaces of concrete, brick or any other masonry construction material.

28.02 Submittals

- A. Submit manufacturer's material data and application and installation instructions for all products used.
- B. Provide documentation that the proposed manhole rehabilitation process has a minimum 5 year history for reconstruction of sanitary sewer manholes or wet wells on projects of similar size and scope.

28.03 Quality Assurance

- A. Use, mix, apply and cure all products in accordance with the manufacturer’s recommendations and instructions.
- B. Provide recommend daily or per lot test specimens for compressive strength and other testing per applicable ASTM standards.

PRODUCTS

28.04 Materials

A. Patching Mix:

- 1. A quick-setting, fiber-reinforced, calcium aluminates-based cementitious material for patching and filling voids and cracks.
- 2. Material shall have the following minimum requirements:

Compressive strength	ASTM C-109 1 hr	1400 psi
Shrinkage	ASTM C-596 0% at 90% R.H.	
Bond	ASTM C-321 28 Day	150 psi
Cement	Sulfate resistant	
Density, when applied	105	5 pcf

B. Infiltration Control Mix

- 1. A rapid-setting cementitious product specifically formulated for infiltration control.
- 2. Material shall have the following minimum requirements:

Compressive Strength	ASTM C-109 1 hr	600 psi
Compressive Strength	ASTM C-109 24 hr	1,000 psi
Bond	ASTM C-321 1 hr	30 psi
Bond	ASTM C-321 24 hr	80 psi

C. Grouting Mix

1. A rapid setting cementitious grout specifically formulated for stopping very active infiltration and filling voids.
2. A rapid setting chemical grout specifically formulated for stopping very active infiltration.

D. Liner Mix:

1. A fiber-reinforced pure-fused calcium aluminate cement and calcium aluminate aggregate to be wet mixed and low pressure spray applied to form the structural/structurally enhanced monolithic cementitious liner covering all interior manhole surfaces. Liner material to be LaFarge SewperCoat PG or pre-approved equal.
2. Material shall be pre-mixed and specially formulated to withstand H₂S (hydrogen sulfide) bacterial corrosion and abrasion in sewer networks.
3. Material shall have the follow minimum requirements:

Compressive Strength	ASTM-C495 1 day > 8,000 psi
Compressive Strength	ASTM-C495 7 day > 9,000 psi
Compressive Strength	ASTM-C495 28 day > 9,000 psi
Flexural Strength	ASTM-C293 12 hr > 1,000 psi
Flexural Strength	ASTM-C293 28 day > 1,400 psi
Shrinkage	ASTM-C596 0 percent at 95% R.H.

E. Bonding Compound

Material shall be a modified cementitious bonding compound that protects exposed reinforcement steel and enhances bond of overlay to substrate.

F. Water

Water shall be clean and potable

EXECUTION

28.04 Structure Preparation

- A. Remove foreign loose and unsound concrete materials from the interior area of the structure prior to any surface preparation including wastewater, to endure a clean environment for workers.
- B. Loose, unsound, and protruding concrete and masonry material not able to be removed by high pressure water spray may require the use of mason's or mechanical tools for removal.
- C. Clean and profile-prepare the interior surfaces of the structure by way of abrasive sand blasting, or minimum 3,500 psi water blasting leaving a coarse, clean and exposed aggregate surface condition and using additional chemicals as needed to remove grease, oil and other contaminants that could prevent good bond between the existing interior surface and the linear materials.
- D. Active hydrostatic leaks (infiltration) shall be stopped using the rapid-setting specially formulated infiltration control mix.
- E. Very active hydrostatic leaks (infiltration) shall be stopped using one of the rapid-setting grouting mixes specially formulated for control of very active infiltration.
- F. Clean and sand-blast prepare exposed reinforcement steel, and apply and cure bonding compound, in accordance with the product manufacturer's instructions and recommendations.
- G. Prepare cracks and voids to be patched and filled, and apply and cure patching mix, in accordance with the product manufacturers' instructions and recommendations.
- H. Areas of wet wells that are found to be structurally damaged and in need of repair beyond the scope of this specification shall be brought to the attention of the City Engineer. A suitable repair method shall be developed for each area and submitted to the City Engineer for review prior to commencing the repair.

28.05 Liner Application, curing and Testing

- A. Prepare wet well surfaces, wet batch-mix liner material, low pressure spray apply liner mix to manhole ceiling, wall and bench surfaces and allow liner

to cure in accordance with the product manufacturer's instruction and recommendations.

- B. Liner application shall be 0.5 inch minimum thickness.
- C. Inverts shall be lined with patching mix, trawl applied in one coat to a 0.5 inch minimum thickness.
- D. Prepare, label and submit recommended daily or per lot test specimens for testing.

28.05 Cleaning

A. Clean wet well interiors and remove all construction-related materials, equipment and appliances from the wet wells prior to reinstatement of the wet wells into service.

28.07 Measurement and Payment

Measurement shall be based on a lump sum for each pump station.

SANITARY STRUCTURE INTERIOR REHABILITATION
END OF SECTION TWENTY-EIGHT

**CONSTRUCTION
CONTRACT**

00500. CONTRACT FORM

CONTRACT

THIS IS A CONTRACT, made and entered into this _____ day of _____, 20____, by and between The City of Hallandale Beach, hereinafter referred to as CITY and _____, hereinafter referred to as the CONTRACTOR.

WITNESSETH, that the CONTRACTOR and the CITY, for considerations hereinafter name, agree as follows:

ARTICLE 1

SCOPE OF WORK

- 1.1 The CONTRACTOR hereby agrees to furnish all of the labor, materials, equipment and services necessary to perform all of the work described in the Bid Project including Drawings (Design Plans), Specifications and Addenda thereto for the project entitled:

The work to be provided is outlined and includes to **BID #FY 2011-2012-006: PUMP STATION REHABILITATION PROJECT**, which is hereby incorporated and made part of this Agreement by reference and Proposal submitted by CONTRACTOR, which is hereby incorporated and made part of this Agreement by reference.

- 1.2 The CONTRACTOR and the City's Project Manager will develop a single list of items required to render complete, satisfactory, and acceptable construction services, if applicable.

The City's Project Manager will contact the CONTRACTOR with the list of required items for this project and will provide a timeline for the CONTRACTOR to respond. The delivery of the list of items for the accomplishment of the construction project will be provided by the City's Project Manager to the CONTRACTOR within five (5) days of contract execution.

- a) For contracts less than \$10 million dollars the parties shall, within thirty (30) days of substantial completion, develop and deliver a list required for accomplishment of the Project. If the contract is more than \$10 million dollars the parties shall accomplish same within sixty (60) days.
- b) The final completion date under the Contract shall be extended at least thirty (30) days after the list is delivered in paragraph a above.

ARTICLE 2

CONTRACT TIME

- 2.1 The work to be performed under this Contract shall be commenced within 15 calendar days after the Project Initiation Date specified in the Notice to Proceed. The CITY shall instruct the CONTRACTOR to commence the work by written instructions in the form of a Notice to Proceed and a Purchase Order. These will not be issued until receipt of all required documents and after execution of the Contract by both parties. The receipt of all necessary permits by the CONTRACTOR is a condition precedent to the initiation of all work under this Contract. If CONTRACTOR is not in receipt of all necessary permits by the Project Initiation Date set forth in the Notice to Proceed, CONTRACTOR shall so notify CITY in writing immediately. CITY shall then have the option of issuing a revised Notice to Proceed.
- 2.2 Time is of the essence in this Contract. The work shall be substantial **completed within 90 calendar days** from the Project Initiation Date specified in the Notice to Proceed, and completed and ready for final payment in accordance with **Article 21 within 120 calendar days from the Project Initiation Date specified in the Notice to Proceed.**
- 2.3 Upon failure of the CONTRACTOR to substantially complete said Contract within the specified period of time (plus approved extensions, if any) the CONTRACTOR shall pay to CITY the sum of Five Hundred Dollars (\$500.00) for each calendar day after the time specified in paragraph 2.2 above (plus any approved extensions) for substantial completion. After substantial completion if CONTRACTOR shall neglect, refuse or fail to complete the remaining work within the Contract Time or any approved extension thereof, the CONTRACTOR shall pay to the CITY the sum of Five Hundred Dollars (\$500.00) for each calendar day after the time specified in paragraph 2.2. above (plus any approved extensions) for completion and readiness for final payment. These amounts are not penalties but liquidated damages to the CITY.

Liquidated damages are hereby 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 said damages and the cost and effect of the failure of the CONTRACTOR to complete the Contract on time.

- 2.4 The CITY is authorized to deduct liquidated damage amount from the monies due to CONTRACTOR for the work under this Contract, or as much thereof as the CITY may, at its own option, deem just and reasonable.

ARTICLE 3

THE CONTRACT SUM

- 3.1 Payments shall be made at the Contract unit prices or lump sum prices applicable to each integral part of the Contract. These prices shall be full compensation for all costs associated with completion of all work in full conformity with the requirements as stated or shown, or both, in the Bid Project.
 - 3.2 The CITY reserves the right to add or delete work items from the project to meet its available budget.
 - 3.3 In consideration of the work, labor, services and materials to be furnished by the CONTRACTOR, in accordance with the plans and specifications, the City agrees to pay to the CONTRACTOR, upon the completion and acceptance thereof by the City, or its duly authorized agent, the total Contract price of \$(_____), in words
-
-

The Contract price may include a 10% contingency amount for change orders, not to exceed City Commission Motion of _____, that may be authorized in accordance with applicable policies and procedures.

ARTICLE 4

INDEMNIFICATION

- 4.1 CONTRACTOR agrees to indemnify, save harmless and, at the City Attorney's option, defend or pay for an attorney selected by the City Attorney to defend CITY, their officers, agents, servants and employees against any and all claims, losses, liabilities and expenditures of any kind, including attorney's fees, court costs, and other expenses, caused by negligent act or omission of CONTRACTOR, any sub-contractors, their employees, agents, servants, or officers, or accruing, resulting from, or related to the subject matter of this Agreement including, without limitation, any and all claims, demands, or causes of action of any nature, whatsoever, resulting from injuries or damages sustained by any person or property. CONTRACTOR further agrees to indemnify and save harmless the CITY, their officers, agents and employees, for or on account of any injuries or damages received or sustained by any person or persons resulting from any construction defects, including latent defects. Neither the CONTRACTOR nor any of its sub-contractors will be liable under this section for damages arising out of intentional torts of CITY or their officers, agents or employees. In the event that any action or proceeding is brought against CITY by reason of any such claim or demand, CONTRACTOR, upon written notice from CITY, shall defend such action or proceeding.

CONTRACTOR shall require all of the subcontractors working for it to provide the aforementioned indemnification in all contracts and subcontracts entered into and arising out of work performed by CONTRACTOR in connection with the Project.

- 4.2 To the extent considered necessary by the City Attorney, any sums due to CONTRACTOR under this Agreement may be retained by CITY until all of CITY's claims for indemnification pursuant to this Agreement have been settled or otherwise resolved; and any amount withheld shall not be subject to payment of interest by CITY.
- 4.3 In the event that any action or proceeding is brought by CONTRACTOR against CITY, CONTRACTOR hereby waives the right to a jury trial. The provisions of this Article shall survive the expiration or early termination of this Agreement.

- 4.4 Contractor acknowledges that it has received adequate consideration concerning the monetary limitation on the indemnification provided to City, which, shall not be less than \$1 million per occurrence.
- 4.5 To the fullest extent permitted by law, the CONTRACTOR agrees to indemnify and hold-harmless the City, its officers and employees from any claims, liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney fees to the extent caused, in whole or in part, by the professional negligence, error or omission of the CONTRACTOR or persons employed or utilized by the CONTRACTOR in performance of the Agreement.
- 4.6 To the fullest extent permitted by law, the CONTRACTOR agrees to indemnify and hold-harmless the City, its officers and employees from any claims, liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney fees to the extent caused, in whole or in part, by the recklessness or intentionally wrongful conduct, of the CONTRACTOR or persons employed or utilized by the CONTRACTOR in performance of the Agreement.
- 4.7 Nothing in this Agreement is intended to serve as a waiver of sovereign immunity, or of any other immunity, defense, or privilege enjoyed by the City pursuant to Section 768.28 Florida Statutes.

ARTICLE 5

INSURANCE REQUIREMENTS

- 5.1 Without limiting any of the other obligations or liabilities of CONTRACTOR, CONTRACTOR shall provide, pay for, and maintain in force until all of its work to be performed under this Contract has been completed and accepted by CITY (or for such duration as is otherwise specified hereinafter), the insurance coverages set forth herein.
- 5.1.1. Worker's Compensation insurance to apply for all employees in compliance with the "Workers' Compensation Law" of the State of Florida and all applicable federal laws. In addition, the policy(ies) must include:
- 5.1.1.1. Employers' Liability with a limit of One Million Dollars (\$1,000,000.00) each accident.

- 5.1.1.2. If any operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshoremen and Harbor Workers Act and Jones Act.

- 5.1.2. Comprehensive General Liability with minimum limits of One Million Dollars (\$1,000,000.00) per occurrence, combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability policy, without restrictive endorsements, as filed by the Insurance Services Office, and must include:
 - 5.1.2.1. Premises and/or Operations.
 - 5.1.2.2. Independent Contractors.
 - 5.1.2.3. Products and/or Completed Operations for contracts over Fifty Thousand Dollars (\$50,000.00) CONTRACTOR shall maintain in force until at least three years after completion of all work required under the Contract, coverage for products and Completed Operations, including Broad Form Property Damage.
 - 5.1.2.4. Explosion, Collapse and Underground Coverages.
 - 5.1.2.5. Broad Form Property Damage.
 - 5.1.2.6. Broad Form Contractual Coverage applicable to this specific Contract, including any hold harmless and/or indemnification agreement.
 - 5.1.2.7. Personal Injury Coverage with Employee and Contractual Exclusions removed, with minimum limits of coverage equal to those required for Bodily Injury Liability and Property Damage Liability.

- 5.1.2.8. CITY is to be expressly included as an "Additional Insured" in the name of "City of Hallandale Beach", with respect to liability arising out of operations performed for CITY by or on behalf of CONTRACTOR or acts or omissions of CITY in connections with general supervision of such operation.
- 5.1.3. Business Automobile Liability with minimum limits of One Million Dollars (\$1,000,000.00) per occurrence, combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability policy, without restrictive endorsements, as filed by the Insurance Services Office, and must include:
 - 5.1.3.1. Owned Vehicles.
 - 5.1.3.2. Hired and Non-Owned Vehicles.
 - 5.1.3.3. Employers' Non-Ownership.
- 5.2 If the initial insurance expires prior to the completion of the work, renewal copies of policies shall be furnished 30 days prior to the date of their expiration.
- 5.3 Notice of Cancellation and/or Restriction - The policy(ies) must be endorsed to provide the City of Hallandale Beach with 30 days notice of cancellation and/or restriction
- 5.4 The CONTRACTOR shall furnish to the CITY ENGINEER and the City's Project Manager Certificates of Insurance or endorsements evidencing the insurance coverage specified above within 15 days after notification of award. The required Certificates of Insurance shall name the types of policies provided, refer specifically to this Contract, and state that such insurance is as required by this Contract. The Certificate of Insurance shall be in form similar to and contain the information set forth in Form 00608.
- 5.5 The official title of the owner is the "City of Hallandale Beach". This official title shall be used in all insurance documentation.

ARTICLE 6

WEATHER

- 6.1 No extension of time shall be granted for delays resulting from normal weather conditions prevailing in the area as defined by the average of the last ten years of weather data as recorded by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration at the Fort Lauderdale Weather Station.
- 6.2 No more than one day of time extension shall be granted for each day the precipitation, in inches exceeds one (1) inch at the Weather Station, and only when fifty percent or more of the scheduled construction work force cannot work due occurrence of such precipitation on the day claimed.

ARTICLE 7

HURRICANE PRECAUTIONS

- 7.1 During such periods of time as are designated by the United States Weather Bureau as being a hurricane warning or alert, the CONTRACTOR, at no cost to the CITY, shall take all precautions necessary to secure the Project site in response to all threatened storm events, regardless of whether the CITY or CITY ENGINEER has given notice of same.
- 7.2 Compliance with any specific hurricane warning or alert precautions will not constitute additional work.
- 7.3 The contractor acknowledges that threatened tropical storm activity is normal in Broward County and the mere possibility that a warning or watch might be declared is not a basis for compensable or non-compensable extension of time. Tropical Storm Watches and Warnings will not automatically result in a compensable extension of time.
- 7.4 Suspension of the Work caused by a threatened or actual storm event, regardless of whether the CITY has directed such suspension, will entitle the CONTRACTOR to additional Contract Time as non-compensable, excusable delay, and shall not give rise to a claim for compensable delay.

ARTICLE 8

PERMITS, LICENSES AND IMPACT FEES

- 8.1 Except as otherwise provided within the Supplemental Conditions, all permits and licenses required by federal, state, local or county laws, rules and regulations necessary for the execution of the work undertaken by the CONTRACTOR pursuant to this Contract shall be secured and paid by the CONTRACTOR. It is the CONTRACTOR'S responsibility to determine that all zoning requirements have been met prior to obtaining any permits or licenses. It is the CONTRACTOR'S responsibility to have and maintain appropriate Certificate(s) of Competency, valid for the type of work to be performed and for the jurisdiction in which the work is to be completed.
- 8.2. Impact fees levied by any municipality shall be paid by the CONTRACTOR. CONTRACTOR shall be reimbursed only for the actual amount of the impact fee levied by the municipality as evidenced by an invoice or other acceptable documentation issued by the municipality. Reimbursement to the CONTRACTOR in no event shall include profit or overhead of the CONTRACTOR.
- 8.3 Necessity of complying with permit requirements. CONTRACTOR and the City agree that the failure of the Agreement to address a particular permit, condition, fee, term or restriction, shall not relieve CONTRACTOR of the necessity of complying with the law governing said permitting requirements, conditions, fee, terms and restrictions.

ARTICLE 9

DESIGN PLANS AND WORKING DRAWINGS

- 9.1 The Bid Project includes drawings (design plans) and specifications. The CITY, through the CITY ENGINEER, shall have the right to modify the details of these drawings (design plans) and specifications, to supplement said design plans and additional design plans, drawings or additional information as the work proceeds, all of which shall be considered as part of the Bid Project. In case of disagreement between the written and graphic portions of the Bid Project, the written portion shall govern.

ARTICLE 10

"OR EQUAL" CLAUSE:

- 10.1 Whenever a material, article or piece of equipment is identified in the Bid Project including drawings (design plans) and specifications by reference to manufacturers' or vendors' names, trade names, catalog numbers, or otherwise, it is intended merely to establish a standard; and, unless it is followed by words indicating that no substitution is permitted because of form fit function and quality. Any material, article, or equipment of other manufacturers and vendors which will perform or serve the requirements of the general design will be considered equally acceptable provided the materials, article or equipment so proposed is, in the opinion of the CITY, equal in substance, quality and function.
- 10.2 The CITY ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or used without the CITY ENGINEER'S prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. CITY may require CONTRACTOR to furnish at CONTRACTOR'S expense a special performance bond or other Surety with respect to any substitute.

ARTICLE 11

DEFECTIVE WORK

- 11.1 The CITY ENGINEER shall have the authority to reject or disapprove work which he finds to be defective. The CONTRACTOR shall promptly either, as directed, correct all defective work or remove it from the site and replace it with non-defective work. CONTRACTOR shall bear all direct, indirect and consequential costs of such removal or corrections including cost of testing laboratories and personnel.
- 11.2 If, within one year after substantial completion or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any of the work is found to be defective or not in accordance with the Contract Documents, the CONTRACTOR shall correct it promptly without cost to the CITY, after receipt of written notice from the CITY to do so.

Nothing contained herein shall be construed to establish a period of limitation with respect to any other obligation which the CONTRACTOR might have under the Contract Documents.

- 11.3 Should the CONTRACTOR fail or refuse to remove or correct any defective work performed or to make any necessary repairs in an acceptable manner, and in accordance with the requirements of the Contract with the time indicated in writing, the CITY shall have the authority to cause the unacceptable or defective work to be removed or renewed, or make such repairs as may be necessary to be made at the CONTRACTOR'S expense. Any expense incurred by the CITY in which the CONTRACTOR has failed or refused to make shall be paid for out of any monies due or which may become due to the CONTRACTOR, or may be charged against the Performance and Payment Bond. Continue failure or refusal on the part of the CONTRACTOR to make any or all necessary repairs promptly, fully, and to declare the Contract forfeited, in which case the CITY at its option, may purchase materials, tools, and equipment and employ labor or may contract with other individual, firm or corporation, or may proceed with its own forces to perform the work. All costs and expenses incurred thereby shall be charged against the defaulting CONTRACTOR and the amount thereof deducted from any monies due, or which may become due to him, or shall be charged against the Performance and Payment Bond. Any special work performed, as described herein, shall not relieve the CONTRACTOR in any way from his responsibility for the work performed by him.
- 11.4 Failure to reject any defective work or material shall not in any way prevent later rejection when such defect is discovered, or obligate the CITY to final acceptance.

ARTICLE 12

SUBCONTRACTS

- 12.1 The CONTRACTOR shall, within 15 calendar days after the signing of the Contract, notify the CITY in writing of the names of Subcontractors proposed for the work. Such Subcontractor must be in compliance with the provisions of Chapter 9 of the Broward County Code of Ordinances and/or state law as it relates to Certificates of Competency. The CONTRACTOR shall have a continuing obligation to notify the CITY of any change in Subcontractors.
- 12.2 CONTRACTOR shall not employ any Subcontractor against whom CITY may have a reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor against whom CONTRACTOR has a reasonable objection.

- 12.3 The CONTRACTOR shall be fully responsible for all acts and omissions of his Subcontractors and of persons directly or indirectly employed by his Subcontractors and of persons 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 any subcontractor and the CITY or any obligation on the part of the CITY to pay or to see the payment of any monies due any Subcontractor. The CITY may furnish to any Subcontractor evidence of amounts paid to the CONTRACTOR on account of specific work performed.
- 12.4 The CONTRACTOR agrees to bind specifically every Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the CITY.

ARTICLE 13

SEPARATE CONTRACTS

- 13.1 The CITY reserves the right to let other Contracts in connection with this work. The CONTRACTOR shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate this work with theirs.
- 13.2 If any part of the CONTRACTOR'S work depends for proper execution or results upon the work of any other contractor, the CONTRACTOR shall inspect and promptly report to the CITY ENGINEER any defects in such work that render it unsuitable for such proper execution and results. CONTRACTOR'S failure to so inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in other contractor's work after the execution of his work.
- 13.3 The CONTRACTOR shall conduct his operations so as to create no interference or impact on any other contractor on the site. Should such interference or impact occur, the CONTRACTOR shall be liable to the affected contractor for the cost of such interference or impact.
- 13.4 To insure the proper execution of his subsequent work, the CONTRACTOR shall inspect the work already in place and shall at once report to the CITY ENGINEER any discrepancy between the executed work and the requirements of the Bid Project.

ARTICLE 14

DAMAGE TO EXISTING FACILITIES, EQUIPMENT OR UTILITIES

- 14.1 CONTRACTOR shall have full responsibility for reviewing and checking such information and data, for locating all underground facilities shown or indicated in the Contract Documents, for coordination of the work with the owners of such underground facilities during construction, for the safety and protection thereof and for repairing any damage thereto resulting from the work, the cost of all of which will be considered as having been included in the Contract price.
- 14.2 During construction of buildings and/or during improvements, CONTRACTOR covenants and agrees that it shall safely maintain the site of construction activities and protect against damage to persons and property by reason of construction activities and will provide adequate security during non-construction periods. In the case of damage or loss to the building and/or improvements constructed on the property by CONTRACTOR in accordance with this Agreement, CONTRACTOR shall, as soon as possible after the occurrence of such loss or damage, repair or rebuild the buildings and/or improvements in such manner that the buildings and/or improvements after such repairing or rebuilding shall be of the same general character as set forth in this Agreement and the approved Scope of Work and at least equal in value to the buildings and improvements prior to such loss or damage. Such repairs shall begin within ninety (90) calendar days after such occurrence or if rebuilding is required, such rebuilding shall be begun within one hundred eighty (180) calendar days after such occurrence and in either case shall be completed in a reasonable time, subject to extension for Permitted Delays; provided insurance funds are made available to CONTRACTOR for such repair or rebuilding, in which event CONTRACTOR shall commence repairs or rebuilding within one hundred eighty (180) days from the date of occurrence. CONTRACTOR shall have the reasonable right to extend the time period for rebuilding in the event of a major catastrophic event (similar in scope and widespread damage to Hurricane Andrew) which would reasonably affect the ability to secure insurance proceeds, labor, public services, and other required elements to reasonably begin said rebuilding.

CONTRACTOR shall pay for all such repairing and rebuilding so that the property and the buildings and improvements shall be free and clear of all liens of mechanics and materials and similar liens arising out of such repair, rebuilding or reconstruction of the buildings and improvements.

ARTICLE 15

MONITORING REPORTS

- 15.1 CONTRACTOR shall provide the City, in a format reasonably acceptable to the City and CONTRACTOR, information, data and reports to be used by the City in monitoring CONTRACTOR'S performance in carrying out the Project.

ARTICLE 16

CHANGE OF CONTRACT TIME

- 16.1 The "Contract Time" may only be changed by a Change Order. Any claim for an extension of the "Contract Time" shall be based on written notice delivered by the party making the claim to the CITY ENGINEER and the City's Project Manager within 7 calendar days of the beginning of the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within 15 days after the end of such occurrence (unless the CITY allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the "Contract Time" shall be determined by the CITY ENGINEER in accordance with paragraph 16.2, if CITY and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the "Contract Time" will be valid if not submitted in accordance with the requirements of this paragraph.
- 16.2 The "Contract Time" will be extended in an amount equal to time lost due to delays beyond the control of and through no fault or negligence of the CONTRACTOR. Such delays shall include, but not limited to, acts or neglect by CITY or the CITY ENGINEER, or by any employee of either, or any separate contractor employed by the CITY, fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

- 16.3 No Damages for Delay:

Except as provided in Article 1.2(a) and (b) NO CLAIM FOR DAMAGES OR ANY CLAIM OTHER THAN FOR AN EXTENSION OF TIME SHALL BE MADE OR ASSERTED AGAINST THE CITY BY REASON OF ANY DELAYS.

The CONTRACTOR shall not be entitled to an increase in the Contract Sum or payment or compensation of any kind from the CITY for

direct, indirect, consequential, impact or other costs, expenses or damages, including but not limited to costs of acceleration or inefficiency, arising because of delay, disruption, interference or hindrance from any cause whatsoever, whether such delay, disruption, interference or unforeseeable, or avoidable or unavoidable; provided, however, that this provision shall not preclude recovery of damages by the CONTRACTOR for hindrances or delays due solely to fraud, bad faith or active interference on the part of the CITY or its agents. Otherwise, the CONTRACTOR shall be entitled only to extensions of the Contract Time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extent specifically provided above.

16.4 Changes in the Work or Terms of Contract Documents:

16.4.1 Without invalidating the Contract and without notice to any surety, CITY reserves and shall have the right, from time to time to make such increases, decreases or other changes in the character or quantity of the Work as may be considered necessary or desirable to complete fully and acceptably the proposed construction in a satisfactory manner. Any extra or additional work within the scope of this Project must be accomplished by means of appropriate Field Orders and Supplemental Instructions or Change Orders. Surety waives its right to notice of changes in the Contract Terms and/or Contract Price.

16.4.2 Any changes to the terms of the Contract Documents must be contained in a written document, executed by the parties hereto, with the same formality and of equal dignity prior to the initiation of any work reflecting such change, except as provided for in Subparagraph 16.4.1, above. This section shall not prohibit the issuance of Change Orders executed only by CITY as hereinafter provided.

16.5 Field Orders and Supplemental Instructions:

The CITY ENGINEER and the City's Project Manager, shall have the right to approve and issue Field Orders setting forth written interpretations of the intent of the Contract Documents and ordering minor changes in Work execution, providing the Field Order involves no change in the Contract Price or the Contract Time.

CITY ENGINEER shall have the right to approve and issue Supplemental Instructions setting forth written orders, instructions, or interpretations concerning the Contract Documents or its performance, provided such Supplemental Instructions involve no change in the Contract Price or the Contract Time.

ARTICLE 17

CHANGE ORDERS

- 17.1 Changes in the quantity or character of the Work within the scope of the Project which are not properly the subject of Field Orders or Supplemental Instructions, including all changes resulting in changes in the Contract Price, or the Contract Time, shall be authorized only by Change Orders approved in advance and issued in accordance with the procedures customarily utilized by CITY, as amended from time to time.
- 17.2 CONTRACTOR shall not start work on any changes requiring an increase in the Contract Price or the Contract Time until a Change Order setting forth the adjustments is approved by CITY. Upon receipt of a Change Order, CONTRACTOR shall promptly proceed with the work set forth within the document.
- 17.3 In the event satisfactory adjustment cannot be reached for any item requiring a change in the Contract Price or Contract Time, and a Change Order has not been issued, CITY reserves the right at its sole option to either terminate the Contract as it applies to the items in question and make such arrangements as may be deemed necessary to complete the disputed work; to remove the disputed work from the scope of work and to process a unilateral change order reducing the contract price; or submit the matter in dispute to CITY ENGINEER. During the pendency of the dispute, and upon receipt of a Change Order approved by CITY, CONTRACTOR shall promptly proceed with the change in the Work involved and advise the CITY ENGINEER and City's Project Manager in writing within seven (7) calendar days of CONTRACTOR's agreement or disagreement with the method, if any, provided in the Change Order for determining the proposed adjustment in the Contract Price or Contract Time.
- 17.4 Under circumstances determined necessary by CITY, Change Orders may be issued unilaterally by CITY without consent of Surety.

ARTICLE 18

VALUE OF CHANGE ORDER WORK

- 18.1 The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
- 18.1.1. By mutual acceptance of a lump sum which CONTRACTOR and CITY acknowledge contains a component for overhead and profit.

18.1.2. On the basis of the "cost of work," determined as provided in Sections 18.2 and 18.3, plus a CONTRACTOR's fee for overhead and profit that is determined as provided in Section 18.4.

18.2 The term "cost of work" means the sum of all direct costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work described in the Change Order. Except as otherwise may be agreed to in writing by CITY, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in Section 18.3.

18.2.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the work described in the Change Order under schedules of job classifications agreed upon by CITY and CONTRACTOR. Payroll costs for employees not employed full time on the work covered by the Change Order shall be apportioned on the basis of their time spent on the work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay application thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing the work after regular working hours, on Sunday or legal holidays shall be included in the above to the extent authorized by CITY.

18.2.2. Cost of all materials and equipment furnished and incorporated in the work, including costs of transportation and storage thereof, and manufacturers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless CITY deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to CITY. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment shall accrue to CITY and CONTRACTOR shall make provisions so that they may be obtained.

Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by CITY ENGINEER and the costs of transportation, loading, unloading, installation, dismantling and removal thereof, all in accordance with the terms of said agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the work.

18.2.3. Payments made by CONTRACTOR to Subcontractors for work performed by Subcontractors. If required by CITY, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to CITY ENGINEER who will then determine which bids will be accepted. If the Subcontract provides that the Subcontractor is to be paid on the basis of cost of the work plus a fee, the Subcontractor's cost of the work shall be determined in the same manner as CONTRACTOR'S cost of the work. All Subcontractors shall be subject to the other provisions of the Contract Documents insofar as applicable, including but not limited to the CITY'S False Claims Ordinance.

18.2.4. Cost of special engineers, including, but not limited to, engineers, architects, testing laboratories, and surveyors employed for services specifically related to the performance of the work described in the Change Order.

18.2.5. Supplemental costs including the following:

8.2.5.1 The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the work except for local travel to and from the site of the work or to Contractor's home office or branch office.

18.2.5.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workmen, which are consumed in the performance of the work, and cost less market value of such items used but not consumed which remains the property of CONTRACTOR.

18.2.5.3. Sales, use, or similar taxes related to the work, and for which CONTRACTOR is liable, imposed by any governmental authority, provided however, that the Contractor shall not be paid or, or reimbursed, the cost of fines and penalties levied by entities other than the City of Hallandale Beach.

18.2.5.4. Deposits lost for causes other than CONTRACTOR's negligence; royalty payments and fees for permits and licenses.

18.2.5.5. The cost of utilities, fuel and sanitary facilities at the site.

18.2.5.6. Receipted minor expenses such as telegrams, long distance telephone calls (except to Contractor's home office or branch offices), telephone service at the site, expressage and similar petty cash items in connection with the work.

18.2.5.7. Cost of premiums for additional bonds and insurance required because of changes in the work or default by the Contractor.

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

18.3.1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, scheduling consultants, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed or retained by CONTRACTOR or surety, whether at the site or in its principal or a branch office for general administration of the work and not specifically included in the agreed-upon schedule of job classifications referred to in Section 18.2.1., all of which are to be considered administrative costs covered by CONTRACTOR's fee.

18.3.2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

18.3.3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the work and charges against CONTRACTOR for delinquent payments.

18.3.4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same, except for additional bonds and insurance required because of cardinal changes in the work.

18.3.5. Costs due to the negligence or neglect of CONTRACTOR, any Subcontractors, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective work, disposal of materials or equipment wrongly supplied and making good any damage to property.

18.3.6. Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in Section 18.2.

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

18.4.1. A mutually acceptable fixed fee or,

18.4.2. If none can be agreed upon, a fee based on the following percentages of the various portions of the cost of the work:

18.4.2.1. For costs incurred under Sections 18.2.1 and 18.2.2, CONTRACTOR's fee shall not exceed ten percent (10%).

18.4.2.2. For costs incurred under Section 18.2.3, CONTRACTOR's fee shall not exceed seven and one half percent (7.5%); and if a subcontract is on the basis of cost of the work plus a fee, the maximum allowable to the Subcontractor as a fee for overhead and profit shall not exceed ten percent (10%); and

18.4.2.3. No fee shall be payable on the basis of costs itemized under Sections 18.2.4 and 18.2.5, (except Section 18.2.5.3), and Section 18.3.

18.5 The amount of credit to be allowed by CONTRACTOR to CITY for any such change, which results in a net decrease in cost, will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined overhead and profit, if otherwise allowed, shall be figured on the basis of the net increase or decrease, if any, however, CONTRACTOR shall not be entitled to claim lost profits for any Work not performed.

18.6 Whenever the cost of any work is to be determined pursuant to Sections 18.2 and 18.3, CONTRACTOR will submit in a form acceptable to CITY ENGINEER an itemized cost breakdown together with the supporting data.

18.7 Where the quantity of any item of the Work that is covered by a unit price is increased or decreased by more than twenty percent (20%) from the quantity of such work indicated in the Contract Documents, an appropriate Change Order shall be issued to adjust the unit price, if warranted.

18.8 Whenever a change in the Work is to be based on mutual acceptance of a lump sum, whether the amount is an addition, credit or no change-in-cost, CONTRACTOR shall submit an initial cost estimate acceptable to CITY ENGINEER and the City's Project Manager.

18.8.1. Breakdown shall list the quantities and unit prices for materials, labor, equipment and other items of cost.

18.8.2. Whenever a change involves CONTRACTOR and one or more Subcontractors and the change is an increase in the Contract Price, overhead and profit percentage for CONTRACTOR and each Subcontractor shall be itemized separately.

18.9 Each Change Order must state within the body of the Change Order whether it is based upon unit price, negotiated lump sum, or "cost of the work."

ARTICLE 19

TERMINATION FOR CONVENIENCE

- 19.1 The CITY may terminate the Contract for its convenience, at any time, with or without cause, upon thirty (30) days written notice to CONTRACTOR.
- 19.2 Upon such notice of termination, CONTRACTOR will immediately terminate its performance and turn over all of its work product (e.g. plans to the CITY).
- 19.3 CONTRACTOR will then submit a final statement to the CITY for all services performed (based on percentage of project completion) ten days after the date on the notice of termination for convenience.
- 19.4 The CONTRACTOR is precluded from recovering damages for loss of anticipated, but unearned profit on the Contract, as well as consequential damages.

ARTICLE 20

SHOP DRAWINGS

- 20.1 The CONTRACTOR shall submit Shop Drawings for all equipment, apparatus, machinery, fixtures, piping, wiring, fabricated structures and manufactured articles. The purpose of the Shop Drawings is to show the suitability, efficiency, technique of manufacture, installation requirements, details of the item and evidence of its compliance or noncompliance with the Bid Project.
- 20.2 The CONTRACTOR shall thoroughly review and check the Shop Drawings and each and every copy shall show this approval thereon.
- 20.3 If the Shop Drawings show or indicate departures from the Contract requirements, the CONTRACTOR shall make specific mention thereof in his letter of transmittal. Failure to point out such departures shall not relieve the CONTRACTOR from his responsibility to comply with the Bid Project.
- 20.4 The CITY ENGINEER'S approval of the Shop Drawings will be general and shall not relieve the CONTRACTOR of responsibility for the accuracy of such Drawings, nor for the proper fitting and construction of the work, nor for the furnishing of materials or work required by the Contract and not indicated on the Drawings.

No work called for by Shop Drawings shall be performed until the said Drawings have been approved by the CITY ENGINEER. Approval shall not relieve the CONTRACTOR from responsibility for errors or omissions of any sort on the Shop Drawings.

- 20.5 The CONTRACTOR shall keep one set of Shop Drawings marked with the CITY ENGINEER'S approval at the job site at all times.

ARTICLE 21

PROGRESS PAYMENTS

All invoices and/or bills and/or requests for payments and/or application for payment are to be sent to the City Engineer and the City's Project Manager.

- 21.1 The CONTRACTOR may request payments for work completed at intervals of not more than once a month. The CONTRACTOR'S requisition shall show a complete breakdown of the project components, the quantities completed and the amount due, together with such supporting evidence as may be required by the CITY ENGINEER. Each requisition shall be submitted in triplicate to the CITY ENGINEER for approval. CITY shall make payment to the CONTRACTOR within 25 days after approval by the CITY ENGINEER of CONTRACTOR'S requisition for payment.
- a) Overdue notice. The CONTRACTOR may send the City an overdue notice if the invoice is not paid or rejected within the time frame in Section 21.1, and four (4) business days following the delivery of overdue notice the payment required by the City shall be accepted, rejected or rejected in part.
- 21.2 Retainage: The CONTRACTOR agrees that ten percent (10%) of monies earned by CONTRACTOR shall be retained by CITY until fifty percent (50%) completion of the project. After 50% completion of the project and prior to Final Payment, the Contractor may request a reduction of retainage to five percent (5%) of monies earned by CONTRACTOR. The CITY may retain amounts greater than those set forth above that are the subject of a good faith dispute pursuant to Federal Statute 255.078 (6), the subject of a claim brought pursuant to Section 255.05, Florida Statutes, or otherwise the subject of a claim or demand by the CITY or CONTRACTOR.

- 21.3 The CITY may withhold in whole or in part, payment to such extent as may be necessary to protect itself from loss on account of:
- 21.3.1. Defective work not remedied.
 - 21.3.2. Claims filed or reasonable evidence indicating probable filing of claims by other parties against the CONTRACTOR.
 - 21.3.3. Failure of the CONTRACTOR to make payments properly to Subcontractors or for material or labor.
 - 21.3.4. Damage to another Contractor not remedied.

When the above grounds are removed or resolved or the CONTRACTOR provides a surety bond or a consent of Surety, satisfactory to the CITY which will protect the CITY in the amount withheld, payment may be made in whole or in part.

ARTICLE 22

ACCEPTANCE AND FINAL PAYMENT

- 22.1 Upon receipt of written notice from the CONTRACTOR that the work is ready for final inspection and acceptance, the CITY shall within ten days make an inspection thereof. If the CITY finds the work acceptable under the Contract and the Contract work has been fully performed, a Final Certificate of Payment (Form 00826) shall be issued by the CITY, stating that the work required by the Contract has been completed and is accepted under the terms and conditions thereof.
- 22.2 Before issuance of the Final Certificate for Payment, the CONTRACTOR shall deliver to the CITY a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof, and an Affidavit certifying that all suppliers and Subcontractors have been paid in full and that all other indebtedness connected with the work has been paid, and a consent of the Surety of Final Payment. The CITY may withhold final payment under the same terms and conditions as set forth in Section 21.3 above.
- 22.3 If, after the work has been substantially completed, full completion thereof is materially delayed through no fault of the CONTRACTOR, the CITY shall, without terminating the Contract, make payment of the balance due for that portion of the work fully completed and accepted.

Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute waiver of claims.

- 22.4 The making and acceptance of the final payment shall constitute a waiver of all claims by the CITY, other than those arising from faulty or defective work, failure of the work to comply with requirements of the Contract Documents or terms of any special warranties required by the Contract Documents. It shall also constitute a waiver of all claims by the CONTRACTOR, except those previously made in writing and identified by the CONTRACTOR as unsettled at the time of the application for final payment.

ARTICLE 23

CITY'S RIGHT TO TERMINATE CONTRACT

- 23.1 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 insure 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 if CONTRACTOR shall become insolvent or be declared bankrupt, or commit any act of bankruptcy or insolvency, or shall make an assignment for the benefit of creditors, or for any other cause whatsoever shall not carry on the Work in an acceptable manner, CITY may give notice in writing to CONTRACTOR and its Surety of such delay, neglect or default, specifying the same. Nevertheless, Surety waives its right to notice pursuant to this paragraph. If CONTRACTOR, within a period of ten (10) calendar days after such notice, shall not proceed in accordance therewith, then CITY may neglect or default the CONTRACTOR and CONTRACTOR's failure to comply with such notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Project site and take the prosecution of the Work out of the hands of CONTRACTOR, and appropriate or use any or all materials and equipment on the Project site as may be suitable and acceptable. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Project is completed. In addition CITY may enter into an agreement for the completion of the Project according to the terms and provisions of the Contract Documents, or use such other methods as in City's sole opinion shall be required for the completion of the Project according to the terms and provisions of the Contract Documents, or use such other methods as in City's sole opinion shall be required for the completion of the Project in an acceptable manner.

All damages, costs and charges incurred by CITY, together with the costs of completing the Project and any fines or levies that may be assessed against the City by any governmental entity or by Broward County as a result of late completion of the Project, shall be deducted from any monies due or which may become due to CONTRACTOR. In case the damages and expenses so incurred by CITY shall exceed the unpaid balance, then CONTRACTOR shall be liable and shall pay to CITY the amount of said excess.

- 23.2 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 Article 19.

ARTICLE 24

CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

If CITY ENGINEER received CONTRACTOR's proper invoice and/or bill and/or request for payment and/or application for payment, and should CITY ENGINEER fail to review and approve or state in writing reasons for not approving, or for rejecting, of the Application for Payment within twenty-five (25) business days after it is presented, then CONTRACTOR shall provide CITY with written notice of same, and if CITY fails either to pay CONTRACTOR within four (4) business days after CITY receives CONTRACTOR's notice, CITY shall notify CONTRACTOR in writing of any objection to the Application for Payment, then CONTRACTOR shall, give a second written notice to CITY of such delay, neglect or default, specifying the same and if CITY, within a period of ten (10) calendar days after such second notice shall not remedy the delay, neglect, or default upon which the notice is based, then CONTRACTOR may stop work or terminate this Contract and recover from CITY payment for all work executed and reasonable expenses sustained therein plus reasonable termination

expenses. In such event, the contract shall be deemed terminated for convenience, and 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 performed. No payment shall be made for profit for work or services that have not been performed or for consequential damages.

ARTICLE 25

DIFFERING SITE CONDITIONS

In the event that during the course of the Work CONTRACTOR encounters subsurface or concealed conditions at the Project site which differ materially from those shown on the Contract Documents and from those ordinarily encountered and generally recognized as inherent in work of the character called for in the Contract Documents and Supplementary Conditions; or unknown physical conditions of the Project site, of an unusual nature, which differ materially from that ordinarily encountered and generally recognized as inherent in work of the character called for in the Contract Documents in the locales such as that where the work is to be done, CONTRACTOR shall, within twenty-four (24) hours of their discovery, notify CITY in writing of the existence of the aforesaid conditions. CITY shall, within two (2) business days after receipt of CONTRACTOR's written notice, investigate the site conditions identified by CONTRACTOR. If, in the sole opinion of CITY ENGINEER with the consent of City's Project Manager, the conditions do materially so differ and cause an increase or decrease in CONTRACTOR's cost of, or the time required for, the performance of any part of the Work, CITY ENGINEER shall recommend an equitable adjustment to the Contract Price, or the Contract Time, or both. If CITY and CONTRACTOR cannot agree on an adjustment in the Contract Price or Contract Time, the adjustment shall be referred to CITY ENGINEER for determination in accordance with the provision for resolving disputes. Should CITY ENGINEER determine that the conditions of the Project site are not so materially different to justify a change in the terms of the Contract, CITY ENGINEER shall so notify CONTRACTOR in writing, stating the reasons, and such determination shall be final and binding upon the parties hereto.

No request for an equitable adjustment or change to the Contract Price or Contract Time for differing site conditions shall be allowed if made after the date certified by CITY ENGINEER as the date of substantial completion.

ARTICLE 26

RESOLUTION OF DISPUTES

- 26.1 To prevent all disputes and litigation, it is agreed by the parties hereto that the CITY ENGINEER shall decide all questions, claims, difficulties and disputes of whatever nature which may arise relative to the technical interpretation of the Contract Documents and fulfillment of this Contract 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 and CITY ENGINEER's estimates and decisions upon all claims, questions, difficulties and

disputes shall be final and binding to the extent provided in Section 26.2. Any claim, question, difficulty or dispute which cannot be resolved by mutual agreement of CITY and CONTRACTOR shall be submitted to CITY ENGINEER in writing within twenty-one (21) calendar days. Unless a different period of time is set forth herein, CITY ENGINEER shall notify CONTRACTOR in writing of CITY ENGINEER's decision within twenty-one (21) calendar days from the date of the submission of the claim, question, difficulty or dispute, unless CITY ENGINEER requires additional time to gather information or allow the parties to provide additional information. All non-technical administrative disputes shall be determined by the CITY ENGINEER and the City's Contract Manager pursuant to the time periods provided herein. During the pendency of any dispute and after a determination thereof, CONTRACTOR and CITY shall act in good faith to mitigate any potential damages including utilization of construction schedule changes and alternate means of construction.

- 26.2 In the event the determination of a dispute under this Article is unacceptable to either party hereto, the party objecting to the determination must notify the other party in writing within ten (10) days of receipt of the written determination. The notice must state the basis of the objection and must be accompanied by a statement that any Contract Price adjustment claimed is the entire adjustment to which the objecting party has reason to believe it is entitled to as a result of the determination. Within sixty (60) days after a disputed invoice or during Final Completion of the Work, the parties shall participate in settlement discussions to address all objections to any determinations hereunder and to attempt to prevent litigation. Should any objection not be resolved, the parties retain all their legal rights and remedies provided under State law. This article shall not limit the CITY'S rights under the CITY'S False Claims Ordinance.

ARTICLE 27

APPLICABLE LAW AND VENUE

The parties expressly agree that this Contract shall be construed and interpreted in accordance with the laws of the State of Florida.

Venue for adjudication of disputes and litigation concerning this CONTRACT shall be in Broward County, Florida.

BY ENTERING INTO THIS AGREEMENT, CONTRACTOR AND CITY HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT.

Nothing in this Agreement is intended to serve as a waiver of sovereign immunity, or of any other immunity, defense, or privilege enjoyed by the City pursuant to Section 768.28 Florida Statutes.

ARTICLE 28

CONTRACT DOCUMENTS

- 28.1 This Contract incorporates by reference the following documents: the Bid Project including drawings (design plans) and specifications, the Notice for Bids, the Addenda to the Bid Project, the Bid Tender Form, the record of Contract awarded by the City of Hallandale Beach, the Contract, the Performance and Payment Bond, any additional documents the submission of which is required by this Bid Project, the Notice of Award, the Notice to Proceed, and the Purchase Order.
- 28.2 Where there is a conflict between any provision set forth within the General Conditions and a more stringent state or federal provision which is applicable to this Project, the more stringent state or federal provision shall prevail.
- 28.3 This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein and the parties agree that there are not commitments, agreements, or understandings concerning the subject matter of these Contract Documents that are not contained herein. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements whether oral or written.
- 28.4 By execution of this Agreement, CONTRACTOR does certify that CONTRACTOR has been duly authorized by delivery of this Agreement and all other documents, certificates, agreements, consents and receipts, and to take any and all other actions of any kind whatsoever in order to accomplish the purposes and undertakings of this Agreement

ARTICLE 29

NONDISCRIMINATION, EQUAL OPPORTUNITY

AND AMERICANS WITH DISABILITIES ACT

CONTRACTOR shall not unlawfully discriminate against any person in its operations and activities in its use or expenditure of funds or any portion of the funds provided by this Agreement and shall course of providing any services funded in whole or in part by CITY, including Titles I and II of the ADA (regarding nondiscrimination on the basis of disability), and all applicable regulations, guidelines and standards.

CONTRACTOR's decisions regarding the delivery of services under this Agreement shall be made without regard to or consideration of race, age, religion, color, gender, sexual orientation (Broward County Code, Chapter 16 ½), gender identity, gender expression, national origin, marital status, physical or mental disability, political affiliation, or any other factor which cannot be lawfully or appropriately used as a basis for service delivery.

CONTRACTOR shall comply with Title I of the Americans with Disabilities Act regarding nondiscrimination on the basis of disability in employment and further shall not discriminate against any employee or applicant for employment because of race, age, religion, color, gender, sexual orientation, gender identity, gender expression, national origin, marital status, political affiliation, or physical or mental disability. In addition, CONTRACTOR shall take affirmative steps to ensure nondiscrimination in employment against disabled persons. Such actions shall include, but not be limited to the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff, termination, rates of pay, other forms of compensation, terms and conditions of employment, training (including apprenticeship, and accessibility).

CONTRACTOR shall take affirmative action to ensure that applicants are employed and employees are treated without regard to race, age, religion, color, gender, sexual orientation (Broward County Code, Chapter 16 ½), gender identity, gender expression, national origin, marital status, political affiliation, or physical or mental disability during employment.

Such actions shall include, but not be limited to the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff; termination, rates of pay, other forms of compensation, terms and conditions of employment, training (including apprenticeship), and accessibility.

CONTRACTOR shall not engage in or commit any discriminatory practice in violation of the Broward County Human Rights Act (Broward County Code, Chapter 16 ½) in performing any services pursuant to this Agreement.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the respective dates under each signature: CITY OF HALLANDALE BEACH through its authorization to execute same by COMMISSION action on the _____ day of _____, 20_____, signing by and through its City Manager, duly authorized to execute same, and _____, signing by and _____ (name of contractor) through its _____ duly authorized to execute same. (title of authorized officer)

CITY

ATTEST:

CITY OF HALLANDALE BEACH

City Clerk

By _____
Renee Crichton, City Manager

_____ day of _____, 20_____.

Approved as to form by
City Attorney

By _____
V. Lynn Whitfield, City Attorney

CONTRACTOR MUST EXECUTE THIS CONTRACT AS INDICATED BELOW. USE CORPORATION OR NONCORPORATION FORMAT, AS APPLICABLE.

(If incorporated sign below).

CONTRACTOR

ATTEST:

(Name of Corporation)

(Secretary)

By _____
(Signature and Title)

(Corporate Seal)

(Type Name and Title Signed Above)

_____ day of _____, 20____.

(If not incorporated sign below).

CONTRACTOR

WITNESSES:

(Name)

By _____
(Signature)

(Typed Name Signed Above)

_____ day of _____, 20____.

CITY REQUIRES THREE (3) FULLY-EXECUTED CONTRACTS.

00608. FORM CERTIFICATE OF INSURANCE

A form Certificate of Insurance will be provided as specified in the bid and/or RFP.

00609. FORM OF PERFORMANCE AND PAYMENT BOND

That we _____,
as Principal, hereinafter called CONTRACTOR, and
_____, as Surety, are bound to the City of
Hallandale Beach, Florida, as Obligee, hereinafter called CITY in the amount of
_____ Dollars
(\$_____) for the payment whereof CONTRACTOR/PRINCIPAL and
Surety bind themselves, their heirs, executors, administrators, successors and
assigns, jointly and severally.

WHEREAS, CONTRACTOR has by written agreement entered into a
Contract, **Bid/Contract No.: FY2011-2012-006: PUMP STATION REHABILITATION**
awarded the _____ day of _____, 2011, with CITY for
_____ for which Contract is
by reference made a part hereof, and is hereafter referred to as the Contract;

THE CONDITION OF THIS BOND is that if the CONTRACTOR:

1. Performs the Contract between the CONTRACTOR and the CITY for Public Works Improvements for the **PUMP STATIONS REHABILITATION FOR #4; #12 AND #13 PROJECT**, the Contract being made a part of this Bond by reference, at the times and in the manner prescribed in the Contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying CONTRACTOR with labor, materials, or supplies, used directly or indirectly by CONTRACTOR in the prosecution of the work provided for in the Contract; and
3. Pays CITY all losses, damages, expenses, costs and attorneys fees including appellate proceedings, that CITY sustains because of default by CONTRACTOR under the Contract: and
4. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract, then this Bond is void; otherwise it remains in full force.

Any action under this Bond must be instituted in accordance with the Notice and Time Limitations provisions prescribed in Section 255.05(2), Florida Statutes.

This Bond shall continue in effect for one year after completion and acceptance of the work. The Surety hereby waives notice of and agrees that any changes in or under the Contract Documents and compliance or noncompliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this Bond.

Whenever CONTRACTOR shall be, and declared by CITY to be, in default under the Contract, the CITY having performed CITY'S obligations thereunder, the surety shall promptly:

- 4.1. Complete the Contract in accordance with its terms and conditions and using a different contractor if City objects to using principal, shall well and truly perform, carry out and abide by the terms, conditions and provisions of said Contract and complete the structure therein specified in accordance with the terms thereof and perform said Contract as aforesaid and declared by CITY in default under the Contract, it shall be duty of the surety herein to assume responsibility for the performance of said Contract, remedy the default and to complete the contract therein specified in accordance with the terms thereof; and the surety herein shall and does hereby agree to indemnify the obligee and hold it harmless of, from and against any all liability, loss, cost damage or expense and reasonable attorney fees, engineering and architectural fees or other professional services which said obligee incurs or which may accrue or be imposed upon by reason of the principal's default under the contract any negligence, default and/or misconduct on the part of said contractor, and its agents, servants, and/or employees, in about, or on account of the construction of structures and performance of said contract by the said contractor, and shall repay to and reimburse to the said obligee promptly upon demand, all sums of money including reasonable attorneys, architects and other professional fees, each and every paid out or expended by the said obligee on account of the failure and/or refusal of contractor to carry out do, perform, and/or comply with any of the terms and provisions of said Contract at and in the manner therein provided.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the CITY named herein and those persons or corporations provided for in Section 255.05, Florida Statutes, or their heirs, executors, administrators or successors.

Signed and sealed this _____ day of _____, 20_____.

ATTEST:

(Name of Corporation)

(Secretary)

By _____
(Signature and Title)

(Corporate Seal)

(Type Name and Title Signed Above)

IN THE PRESENCE OF:

INSURANCE COMPANY:

By _____
Agent and Attorney-in-Fact

Address: _____
(Street)

(City/State/Zip Code)

Telephone No.: _____

00622. FORM OF CERTIFICATE AND AFFIDAVIT FOR BONDS \$500,000.00 OR LESS

TO: CITY OF HALLANDALE BEACH, FLORIDA

RE: BID NUMBER: FY2011-2012-006: PUMP STATIONS REHABILITATION FOR NUMBER PUMPS #4; #12 AND #13 PROJECT

Bidder:	
Name:	
Address	
City/State/Zip:	
Telephone No.	

This is to certify that, in accordance with Chapter 85-104, Laws of Florida (HB 1266), the insurer named above:

Holds a Certificate of Authority authorizing it to write Surety Bonds in the State of Florida.

Holds a current valid Certificate of Authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code.

(Date Signed)

Agent and Attorney-in-Fact

AFFIDAVIT

STATE OF FLORIDA)
) SS.
COUNTY OF)

BEFORE ME this day personally appeared _____,
Agent and Attorney-in-Fact of _____, who, being
duly sworn, executed the foregoing instrument and acknowledged to and before me
the truthfulness and accuracy of the statements in the foregoing instrument.

Signature of Person Making Affidavit

SWORN TO AND SUBSCRIBED before me this _____ day of _____, 20__.

Notary Public
State of Florida

My commission expires:

00825. CERTIFICATE OF SUBSTANTIAL COMPLETION:

PROJECT:
(name, address)

CITY ENGINEER:

BID/CONTRACT NUMBER:

TO (CITY):

CONTRACTOR:

CONTRACT FOR:

NOTICE TO PROCEED DATE:

DATE OF ISSUANCE:

PROJECT OR DESIGNATED PORTION SHALL INCLUDE:

The work performed under this Contract has been reviewed and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby established as which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

DEFINITION OF DATE OF SUBSTANTIAL COMPLETION

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

00826. FINAL CERTIFICATE OF PAYMENT:

PROJECT:
(name, address)

CITY ENGINEER:

BID/CONTRACT NUMBER:

TO (CITY):

CONTRACTOR:

CONTRACT FOR:

NOTICE TO PROCEED DATE:

DATE OF ISSUANCE:

The Work required by this Contract has been reviewed and the undersigned certifies that the Work has been completed in accordance with the provision of this Contract and is accepted under the terms and conditions thereof.

CONSULTANT, CITY ENGINEER BY DATE

The CITY, through the Contract Administrator, accepts the work as fully complete and will assume full possession thereof at

on _____ (time)

(date)

CITY OF HALLANDALE BEACH _____
BY CITY MANAGER DATE

00830. FORM OF FINAL RECEIPT:

{The following form will be used to show receipt of final payment for this Contract}.

FINAL RECEIPT FOR CONTRACT NO. _____

Received this _____ day of _____, 20_____,
from City of Hallandale Beach, the sum of _____
Dollars (\$_____) as full and final payment to the
CONTRACTOR for all work and materials for the Project described as:

This sum includes full and final payment for all extra work and materials and all incidentals.

The CONTRACTOR hereby indemnifies and releases City of Hallandale Beach from all liens and claims whatsoever growing out of the said Contract or Project.

The CONTRACTOR hereby certifies that all persons doing work upon or furnishing materials or supplies for the said improvements under the foregoing Contract have been paid in full.

The CONTRACTOR further certifies that all taxes imposed by Chapter 212, Florida Statutes (Sales and Use Tax Act), as amended, have been paid and discharged.

{If incorporated sign below}

CONTRACTOR

ATTEST:

(Secretary)

(CORPORATE SEAL)

(Name)

By: _____
(Title)

Date: _____

{If not incorporated sign below}

CONTRACTOR

WITNESS:

_____ (Name)

By: _____

Date: _____