

## **Solicitation 12600-125**

### **Design-Build Pump Station A-16 Upgrade - Wastewater**

#### **Bid Designation: Public**



**City of Fort Lauderdale**

## Bid 12600-125

### Design-Build Pump Station A-16 Upgrade - Wastewater

Bid Number **12600-125**  
 Bid Title **Design-Build Pump Station A-16 Upgrade - Wastewater**

Bid Start Date **Nov 18, 2021 10:41:15 AM EST**  
 Bid End Date **Jan 12, 2022 2:00:00 PM EST**  
 Question & Answer End Date **Jan 3, 2022 5:00:00 PM EST**

Bid Contact **Fausto Vargas**  
**Procurement Specialist**  
**Finance - Procurement Division**  
**fvargas@fortlauderdale.gov**

Contract Duration **One Time Purchase**  
 Contract Renewal **Not Applicable**  
 Prices Good for **120 days**  
 Pre-Bid Conference **Nov 30, 2021 10:00:00 AM EST**  
**Attendance is optional**  
**Location: SE 11 St and SE 4 Avenue**  
**Fort Lauderdale, FL 33301**

Bid Comments **The City of Fort Lauderdale, FL ("City") has issued this Request for Proposal (RFP) to solicit competitive proposals from one single entity ("Firm" or "Proposer" or "Design-Build Firm (DBF)") responsible for the design, permitting, construction, testing and startup of Design Build Pump Station A-16 Upgrade - Wastewater . The work to be accomplished under this contract includes, but is not limited to; design, surveying, geotechnical exploration, preparation of completed permit submittal packages, labor, materials, dewatering, bypass pumping, and procurement of all required permits for construction, construction phasing, maintenance of traffic, abandonment of existing gravity sewer, 6-inch force main and PS A-16, and all other related work or services, including all other aspects of the project to fulfill the intent of the Project as described in the Design Criteria Package and all supporting documents. Design-Build Firms who are interested in submitting Statements of Qualification (SOQ) in response to this RFP shall comply with Section IV - Submittal Requirements.**

**The Proposer shall have the following Minimum Qualifications to be considered eligible to submit a Proposal in response to this Solicitation. It is the responsibility of the Proposer to ensure and certify that it meets the Minimum Qualifications stated below.**

**The design build firm must have a designer that is a Professional Engineer Registered in Florida and a general contractor having a valid GC license with underground utility designation.**

**Note to all Bidders: Under P12412 there will be two separate Water and Wastewater components to be designed and built under separate contracts. However, it is the City's objective to have both Water and Wastewater components awarded and constructed simultaneously. The simultaneous completion of both Water and Wastewater components is very crucial for the construction of a new Federal Court House building and a dedicated parking building for the Federal Court House. The City will like to encourage all D/B teams interested in bidding the Wastewater component of the project to also consider bidding the Water (RFP 12601-125) component of the project as well.**

**Added on Dec 20, 2021:  
 Addendum 3)**

**Opening Bid and Q&A will be extended:**

**New Opening Date January 12,2022**

**New Q&A Date January 3, 2022**

**Addendum # 1**

New Documents	<b>Addendum 1.pdf</b> <b>Conceptual Plans.pdf</b>
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**Addendum # 2**

New Documents	<b>Addendum 2.pdf</b>
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**Addendum # 3**

New Documents	<b>Addendum 3.pdf</b>		
Previous End Date	<b>Dec 20, 2021 2:00:00 PM EST</b>	New End Date	<b>Jan 12, 2022 2:00:00 PM EST</b>
Previous Q & A End Date	<b>Dec 10, 2021 5:00:00 PM EST</b>	New Q & A End Date	<b>Jan 3, 2022 5:00:00 PM EST</b>

**Item Response Form**

Item **12600-125--01-01 - Pump Station A-16 Upgrade - Wastewater DCP**

Quantity **1 each**

Prices are not requested for this item.

Delivery Location **City of Fort Lauderdale**  
City Hall  
 100 N. Andrews Avenue  
 Fort Lauderdale FL 33301  
**Qty 1**

**Description**

ENTER TOTAL PROPOSAL "CONTRACT PRICE" AS STATED ON THE PRICE PROPOSAL FORMS.

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

**Proposal Bond:** A bond, for **five percent (5%)** of the Price Proposal, shall accompany each proposal as evidence of the good faith and responsibility of the proposer.

## SECTION 1 INTRODUCTION

### 1.1 Purpose

The City of Fort Lauderdale, FL (“City”) has issued this Request for Proposal (RFP) to solicit competitive proposals from one single entity (“Firm” or “Proposer” or “Design-Build Firm (DBF)”) responsible for the design, permitting, construction, testing and startup of Design Build Pump Station A-16 Upgrade - Wastewater. The work to be accomplished under this contract includes, but is not limited to; design, surveying, geotechnical exploration, preparation of completed permit submittal packages, labor, materials, dewatering, bypass pumping, and procurement of all required permits for construction, construction phasing, maintenance of traffic, abandonment of existing gravity sewer, 6-inch force main and PS A-16, and all other related work or services, including all other aspects of the project to fulfill the intent of the Project as described in the Design Criteria Package and all supporting documents. Design-Build Firms who are interested in submitting Statements of Qualification (SOQ) in response to this RFP shall comply with Section IV - Submittal Requirements.

The City will retain services within the scope of architecture or professional engineering and within the scope of construction contracting. The City will solicit proposals and establish a competitive selection process in accordance with City of Fort Lauderdale [Code of Ordinances Section 2-125.1](#) to procure the services of a qualified DBF.

The Design-Criteria Professional, **Kimley Horn** including their sub-consultants, are not eligible to render design-build services for this solicitation. Pursuant to [Florida Statutes 287.055 \(9\) \(b\)](#), “A design criteria professional who has been selected to prepare the design criteria package is not eligible to render services under a design-build contract executed pursuant to the design criteria package.” The City reserves the right to disqualify any proposal from a team which includes any sub-consultant and/or individual who has played a substantial role in the development of the design criteria package or whose involvement with the design-build team would confer upon that team an unfair competitive advantage because of such sub-consultant’s or member’s prior involvement in the project.

### 1.2 Bid Sync

The City of Fort Lauderdale uses BidSync ([www.bidsync.com](http://www.bidsync.com)) to administer the competitive solicitation process, including but not limited to soliciting responses, issuing addenda, posting results and issuing notification of an intended decision. There is no charge to register and download the RFP from BidSync and to participate in the solicitation, nor will any fees be charged to the awarded DBF. Proposers are strongly encouraged to read the various vendor guides and tutorials available in BIDSNYC well in advance of their intention of submitting a response to ensure familiarity with the use of BidSync. The City shall not be responsible for a Proposer’s inability to submit a response by the submission deadline date and time for any reason, including issues arising from the use of BidSync.

It is the sole responsibility of the Proposer to ensure that their bid is submitted electronically through BidSync at [www.bidsync.com](http://www.bidsync.com) no later than the time and date specified in this solicitation. **PAPER PROPOSAL SUBMITTALS WILL NOT BE ACCEPTED. PROPOSALS MUST BE SUBMITTED ELECTRONICALLY VIA [WWW.BIDSYNC.COM](http://WWW.BIDSYNC.COM).**

### 1.3 Submission Deadline

Responses shall be submitted electronically via BidSync ([www.bidsync.com](http://www.bidsync.com)) in response to **RFP No. 12600-125, Design Build Pump Station A-16 Upgrade - Wastewater** prior to the designated bids due date and time indicated in the solicitation.

### 1.4 Electronic Proposal Openings

Please be advised that effective immediately, and until further notice, all Invitation to Bids, Request For Proposals, Request For Qualifications, and other solicitations let by the City of Fort Lauderdale will be opened electronically via [WWW.BIDSYNC.COM](http://WWW.BIDSYNC.COM) at the date and time indicated on the solicitation. All openings will be held on the BIDSYNC.COM platform. Once the Procurement Specialist opens the solicitation, the bid tabulations may be viewed immediately on a computer, laptop, cell phone, or any other device with WiFi access. The opening may also be viewed in real time through a “Webex meeting” or similar type platform.

When it's time, start your Zoom meeting by pasting the following link in your browser :

Topic: Design Build Pump Station A-16 Upgrade - Wastewater  
Time: Dec 20, 2021 02:00 PM Eastern Time (US and Canada)

Join ZoomGov Meeting

<https://fortlauderdale.zoomgov.com/j/1600152143?pwd=dXI4Zm9ETDczemtEMndpYUcycHJqdz09>

Meeting ID: 160 015 2143

Password: 256962

Mobile Phone One-tap Dial:

+16692545252,,1600152143#,,1#,256962# US (San Jose)

+16468287666,,1600152143#,,1#,256962# US (New York)

Dial by your location

+1 669 254 5252 US (San Jose)

+1 646 828 7666 US (New York)

+1 669 216 1590 US (San Jose)

+1 551 285 1373 US

Meeting ID: 160 015 2143

Password: 256962

Find your local number: <https://fortlauderdale.zoomgov.com/u/aep6EdERvp>

Anyone requesting assistance or having further inquiry in this matter must contact the Procurement Specialist indicated on the solicitation, via the question and Answer forum on Bidsync.com before the Last Day for Questions indicated in the Solicitation.”

Please go to <https://www.fortlauderdale.gov/departments/human-resources/recruitment-testing-selection/employment-benefits> for a complete list of all City observed holidays.

### 1.5 Point of Contact

Procurement Services Division  
**Fausto Vargas, Senior Procurement Specialist**  
100 N. Andrews Avenue, 4<sup>th</sup> Floor  
Fort Lauderdale, FL 33301  
Fax: 954-828-5576  
Email: [fvargas@fortlauderdale.gov](mailto:fvargas@fortlauderdale.gov)

All inquiries concerning this RFP, questions, and request for additional information shall be sent via the BIDSYNC question and answer (Q&A) platform.

### 1.6 Pre-Proposal Meeting:

There will be a pre-proposal conference and/or site visit scheduled for this Request for Proposal. It is strongly suggested that all Contractors attend the pre-proposal conference and/or site visit.

While attendance is not mandatory, tours at other times might not be available. It is the sole responsibility of the Contractor to become familiar with the scope of the City's requirements and systems prior to submitting a proposal. No variation in price or conditions shall be permitted based upon a claim of ignorance. It is strongly suggested that all Contractors attend the pre-proposal meeting and/or site visit.

It will be the sole responsibility of the Contractor to attend the pre-proposal/site visit to inspect the City's location(s) facilities systems prior to submitting a proposal. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a proposal will be considered evidence that the Proposer has familiarized themselves with the nature and extent of the work, equipment, materials, and labor required.

If a person decides to appeal any decision made by the board, agency, or commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

### 1.7 Compliance and Legal Conditions

In order to comply fully with the requirements of the City's Code of Ordinances below and Florida Statutes 287.055, the following procedures shall be followed in selecting firms to provide design/build services and in negotiating design/build contracts.

It will be the sole responsibility of the proposer to familiarize themselves with the following ordinances and statutes:

- a) [City of Fort Lauderdale Ordinance Section 2-125.1 – Design/build contracts](#)
- b) [Florida Statutes 287.055](#) – Acquisition of professional architectural, engineering, landscape architectural, or surveying and mapping services; definitions; procedures; contingent fees prohibited; penalties.
- c) [Florida Statutes 287.055 \(9\)](#) Applicability to Design-Build Contracts

### 1.8 Personal Investigation

Proposers shall satisfy themselves by personal investigation and by such other means as they may think necessary or desirable, as to the conditions affecting the proposed work and

the cost. No information derived from maps, plans, specifications, or from the Engineer, City Manager, or their assistants shall relieve the DBF from any risk or from fulfilling all terms of the contract.

### 1.9 Lobbyist Ordinance

**ALL CONTRACTORS PLEASE NOTE:** Any contractor submitting a response to this solicitation must comply, if applicable, with City of Fort Lauderdale Ordinance No. C-11-42 & Resolution No. 07-101, Lobbying Activities. Copies of Ordinance No. C-11-42 and Resolution No. 07-101 may be obtained from the City Clerk's Office on the 7th Floor of City Hall, 100 N. Andrews Avenue, Fort Lauderdale, Florida. The ordinance may also be viewed on the City's website at <http://www.fortlauderdale.gov/home/showdocument?id=6036>.

### 1.10 Debarred or Suspended Bidders or Proposers

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

### 1.11 Prohibition Against Contracting with Scrutinized Companies

Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), affirmed, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2020), that it is not engaged in a boycott of Israel, and that it does not have business operations in Cuba or Syria, as provided in section 287.135, Florida Statutes (2020), as may be amended or revised. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2020), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2019), or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2020), as may be amended or revised.

By submitting a bid, proposal or response, the company, principals, or owners certify that they are not listed on the Scrutinized Companies with Activities in Sudan List or listed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or is engaged in business operations in Cuba or Syria.

### 1.12 Inconsistencies

Any seeming inconsistency between different provisions of the plans, specifications, proposal or contract, or any point requiring explanation must be inquired into by the proposer, in writing up to the Question & Answer End Date, as published in the solicitation document. After proposals are opened, the proposers shall abide by the decision of the City as to such interpretation. No modifications to Proposals will be permitted after the date and hour of the Proposal opening.

**1.13 Addenda and Interpretations**

No interpretations of the meaning of the plans, specifications or other contract documents will be made orally to any proposer. Prospective proposers must request such interpretation in writing as instructed in the RFP. To be considered, such request must be received by the Questions and Answers deadline as indicated in Bidsync.com. Material changes, if any, to the scope of services or bidding procedures are only transmitted by written addendum. It is the proposer's responsibility to verify if addendums have been issued in Bidsync.com. Failure of any proposer to receive any such addenda or interpretation shall not relieve any proposer from any obligation under his RFP as submitted. All addenda so issued shall become a part of the contract document. Proposer shall verify in Bidsync.com that he/she has all addenda before submitting a proposal.

**1.14 Forms of Proposals**

Each proposal and its accompanying statements must be submitted, in good order with all forms and blanks completed. The proposal must be signed by one duly authorized to do so, and in case signed by a deputy or subordinate, the principal's properly written authority to such deputy or subordinate must accompany the proposal. No proposal will be accepted, for any reason whatsoever, which is not submitted to the City as stated above, within the specified time.

**1.15 Bid Firm for Acceptance (120 days)**

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

**1.16 Additional Items or Services**

The City may require additional items or services of a similar nature, but not specifically listed in the contract. The DBF agrees to provide such items or services, and shall provide the City prices on such additional items or services based upon a formula or method, which is the same or similar to that used in establishing the prices in this proposal. If the price(s) offered are not acceptable to the City, and the situation cannot be resolved to the satisfaction of the City, the City reserves the right to procure those items or services from other vendors, or to cancel the contract upon giving the DBF thirty (30) days written notice.

**1.17 Deletion or Modification of Services**

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

If the DBF and the City agree on modifications or revisions to the task elements, after the City has approved work to begin on a particular task or project, the DBF will submit a request for a Change Order and a revised budget to the City for approval prior to proceeding with the work.



**1.18 Rejection of Proposals/Bids**

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

**1.19 Bid Protest Procedure**

Any proposer or bidder who is not recommended for award of a contract and who alleges a failure by the City to follow the City's procurement ordinance or any applicable law, may follow the protest procedures as found in the City's Procurement Ordinance within five (5) days after a Notice of Intent to award is posted on the City's website at the following link: <http://fortlauderdale.gov/departments/finance/procurement-services/notices-of-intent-to-award>

The complete protest ordinance may be found on the City's website at the following link: [https://library.municode.com/fl/fort\\_lauderdale/codes/code\\_of\\_ordinances?nodeId=COOR\\_CH2AD\\_ARTVFI\\_DIV2PR\\_S2-182DIREPRAWINAW](https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2AD_ARTVFI_DIV2PR_S2-182DIREPRAWINAW)

**1.20 Withdrawals**

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

**\*\*END OF SECTION 1\*\***

## SECTION 2 SPECIAL CONDITIONS

### 2.1 Definitions

**Award** – means the acceptance of a bid, offer or proposal by the proper authorized designee. The City Commission must approve all awards over the authority of the City Manager, with the exception of emergency purchases.

**City** – the City of Fort Lauderdale or the City Commission, a municipal corporation of the State of Florida.

**City Commission** – City Commission shall mean the governing and legislative body of the City.

**Contract** – This Agreement and all addenda, exhibits and amendments thereto between the City and the Design-Build Firm for this Project. Contract shall also mean the same as Agreement.

**Design Build** – Means a single contract with a Design-Build Firm for the design and construction of a City construction project.

**Design Build Firm (DBF)** – means a partnership, corporation, or other legal entity that is certified under Florida Statute 489.119 to engage in contracting through a certified or registered general contractor or a certified or registered building contractor as the qualifying agent or is certified under Florida Statute 471.023 to practice or to offer to practice engineering; certified under Florida Statute 481.219 to practice or to offer to practice architecture, or certified under Florida Statute 481.319 to practice or to offer to practice landscape architecture.

**Design Criteria Package (DCP)** – DCP shall mean those certain conceptual plans and specifications and performance oriented drawings or specifications of the Project, as prepared and sealed by the Design Criteria Professional, and in compliance with the requirements of Section 287.055, Florida Statutes.

**Design Criteria Professional** – means a firm which holds a current certificate or registration under Chapter 481, Florida Statutes, to practice architecture or landscape architecture or a firm which holds a current certificate as a registered engineer under Chapter 471, Florida Statutes, to practice engineering and who is employed by or under contract by the City to provide professional architect services, landscape architect services, or engineering services in connection with the preparation of the Design Criteria Package.

**Guaranteed Maximum Price (GMP)** – the mutually agreed upon contract price to be paid to the DBF for the work, with the DBF agreeing to complete the work without additional payment. The guaranteed maximum price is not subject to increase, except as expressly allowed by the City. Savings below the maximum guaranteed price are shared between owner and DBF, whereas the DBF assumes the responsibility for any overrun beyond the Guaranteed maximum price.

**Negotiate** – any form of that word means to conduct legitimate, arm's length discussion and conferences to reach an agreement on a term or price.

**Notice to Proceed** – means the written notice given by the City to the Design-Build Firm of the date and time for work to start.

**Professional Services** – means those services within the scope of the practice of architecture, professional engineering, landscape architect, or registered surveying and mapping, as defined by the laws of the state, or those performed by any architect, professional engineer, landscape architect, or registered surveyor and mapper in connection with his or her professional employment or practice.

**Project Manager** – an authorized representative of the City assigned to the Project by the City, assigned to make necessary observations of materials furnished by DBF and of the Work performed by DBF as detailed.

**Proposal** – means the proposal or submission submitted by a Proposer. The terms “Proposal” and “Bid” are used interchangeably and have the same meaning.

**Proposer** – means one who submits a Proposal in response to a solicitation. The terms “Proposer” and “Bidder” are used interchangeably and have the same meaning.

**Substantial Completion** – the date(s) certified by the Project Manager that all conditions of the permits and regulatory agencies have been met for the City’s intended use of the Project, and all construction has been performed in accordance with the Contract Documents so City can fully utilize, as opposed to partially utilize, the Project for its intended purpose.

**Work** – the completed construction required by the Contract Documents, as permitted, including all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

## **2.2 Responsiveness**

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

## **2.3 Responsibility**

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

## **2.4 Sub-Consultants**

A Sub-Consultant is an individual or firm contracted by the DBF to assist in the performance of services required under this RFP. A Sub-Consultant shall be paid through DBF and not paid directly by the City. Sub-Consultants are permitted by the City in the performance of the services pursuant to the Agreement. DBF must clearly reflect in its Statement of Qualification (SOQ) the major Sub-Consultant(s) to be utilized in the performance of required services. The City retains the right to accept or reject any Sub-Consultant proposed in the response of successful DBFs or prior to contract execution. Any and all liabilities regarding the use of a Sub-Consultant shall be borne solely by the successful DBF and insurance for each Sub-Consultant must be maintained in good standing and approved by the City throughout the duration of the Contract. Neither successful DBF nor any of its Sub-Consultants are

considered to be employees or agents of the City. Failure to list all Sub-Consultants and provide the required information may disqualify any proposed Sub-Consultant from performing work under this RFP.

DBFs shall include in their responses the requested Sub-Consultant information and include all relevant information required of the DBF. In addition, within five (5) working days after the identification of the award to the successful DBF, the DBF shall provide a list confirming the Sub-Consultant(s) that the successful DBF intends to utilize in the Contract, if applicable. The list shall include, at a minimum, the name, and location of the place of business for each Sub-Consultant, the services Sub-Consultant will provide relative to any contract that may result from this RFP, Sub-consultants hourly rates or fees, any applicable licenses, insurance, references, ownership, and other information required of the DBF. No more than 20% of the team members selected for this project can be substituted and any and all team and/or staff substitutions must be approved by the City in advance.

## **2.5 Contract Term**

Time is of the essence for the DBF's performance of the Work.

The City will enter into a Not-To-Exceed (NTE) contract with the successful DBF for a Guaranteed Maximum Price (GMP) for the Work. The terms and conditions of this contract are fixed price and for a fixed period of time. The DBF submitted proposal is to be a NTE GMP proposal for completing the Scope of Work in the RFP. The DBF will provide a Schedule of Values to the City for their approval. The total of the Schedule of Values will be this NTE GMP contract price for the work.

The DBF shall not assign, transfer or sub-contract any work either in whole or in part, without prior written approval of the City. The submittal responses shall be valid until such time as City Commission awards a contract as a result of this RFP.

City reserves the right, where it may serve the City of Fort Lauderdale's best interest, to request additional information or clarification from Proposers including but not limited to oral interviews as requested by the Evaluation Committee.

The City of Fort Lauderdale reserves the right to waive formalities in any proposal and further reserves the right to take any other action that may be necessary in the best interest of the City.

The City reserves the right to let other contracts in connection with this Project, provided it does not interfere with DBF's work or schedule. By submitting a Proposal each firm is confirming that the firm has not been placed on the convicted vendors list as described in [Florida Statue §287.133 \(2\) \(a\)](#).

## **2.6 Unauthorized Work**

The successful DBF(s) shall not begin work until a Contract and a Notice to Proceed has been issued. DBF(s) agree and understand that a purchase order and/or task order shall be issued and provided to the DBF(s) following City Commission award; however, receipt of a purchase order and/or task order shall not prevent the DBF(s) from commencing the work once the City Commission has awarded the contract and notice to proceed is issued.

## 2.7 Proposal Bond

A certified check, cashier's check or bank officer's check, for **five percent (5%)** of the Price Proposal, made payable to the City of Fort Lauderdale, Florida, or bid bond in such amount, shall accompany each proposal as evidence of the good faith and responsibility of the proposer.

Proposers can submit proposal bonds for projects **four** different ways:

- 1) BidSync allows bidders to submit bid bonds electronically directly through their system using **Surety 2000**. For more information on this feature and to access it, contact BIDSYNC customer care department.
- 2) Proposers may **electronically upload** their original executed proposal bond on Bidsync to accompany their electronic proposal, and deliver the original, signed and sealed hard copy within five (5) business days after proposal opening, with the Firm's name, proposal number and title clearly indicated.

Proposal bond shall be written by a surety insurer authorized to do business in the State of Florida as surety, in accordance with Section 255.05, Florida Statutes. Insufficient proposal bond surety shall automatically constitute a failure on the part of the Consultant and shall be grounds for rejection of your proposal.

- 3) Bidders can **hand deliver** their bid bond in a sealed envelope to the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, Florida 33301-1016, before time of bid opening, with the company name, bid number and title clearly indicated on the envelope.
- 4) Bidders can **mail** their bid bond to the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, Florida 33301-1016, before time of bid opening, with the company name, bid number and title clearly indicated on the envelope. **NOTE: Bond must be received in Procurement and time stamped before bid opening.**

It will be the sole responsibility of the proposer to ensure that his proposal is submitted prior to the proposal opening date and time listed. **PAPER PROPOSAL SUBMITTALS WILL NOT BE ACCEPTED. PROPOSALS MUST BE SUBMITTED ELECTRONICALLY VIA BIDSYNC.COM**

### **Certified Checks, Cashier's Checks and Bank Drafts:**

These **CANNOT** be submitted via BIDSYNC, nor are their images allowed to be uploaded and submitted with your electronic proposal. These forms of securities, as well as hard copy proposal bonds, must be received on or before the Design Build Request for Proposal (RFP) opening date and time, at the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, Florida 33301-1016, with the bid number and title clearly indicated on the envelope.

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

The check or bond shall be retained by the City as liquidated damages should the proposer refuse to or fail to enter into a contract for the execution of the work embraced in this proposal, in the event the proposal of the proposer is accepted. Retention of such amount shall not be construed as a penalty or forfeiture.

The above bond or check shall be a guarantee that the proposer will, if necessary, promptly execute a satisfactory contract and furnish good and sufficient bonds. As soon as a satisfactory contract has been executed and the bonds furnished and accepted, proposal bond accompanying the proposal of the successful proposer will be returned to him/her. If the successful proposer shall not enter into, execute, and deliver such a contract and furnish the required bonds within fifteen (15) days after receiving notice to do so, proposal bond shall immediately become the property of the City of Fort Lauderdale as liquidated damages. Retention of such amount shall not be construed as a penalty or forfeiture.

Additional insurance and bonds may be required for the construction phase of the project.

## **2.8 Performance and Payment Bond (Surety Bond)**

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

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

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

Such bond shall continue in effect for one (1) year after completion and acceptance of the work with liability equal to at least twenty-five percent (25%) of contract price, or an additional bond shall be conditioned that the DBF will correct any defective or faulty work or material which appear within one (1) year after completion of the contract, upon notification by the

City, except in contracts which are concerned solely with demolition work, in which cases twenty-five percent (25%) liability will not be applicable.

## 2.9 Insurance Requirements

During the term of this Agreement, Contractor at its sole expense, shall provide insurance of such a type and with such terms and limits as noted below. Providing and maintaining adequate insurance coverage is a material obligation of Contractor. Contractor shall provide the City a certificate of insurance evidencing such coverage. Contractor's insurance coverage shall be primary insurance as respects to the City for all applicable policies. The limits of coverage under each policy maintained by Contractor shall not be interpreted as limiting Contractor's liability and obligations under this Agreement. All insurance policies shall be through insurers authorized or eligible to write policies in Florida and possess an A.M. Best rating of A-, VII or better, subject to the approval of the City's Risk Manager.

The coverages, limits and/or endorsements required herein protect the primary interests of the City, and these coverages, limits and/or endorsements shall in no way be required to be relied upon when assessing the extent or determining appropriate types and limits of coverage to protect the Contractor against any loss exposures, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the City's review or acknowledgement, is not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Agreement.

The following insurance policies/coverages are required:

### **Commercial General Liability**

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

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

Policy must include coverage for Contractual Liability, Independent Contractors, and contain no exclusions for explosion, collapse, or underground.

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

### **Business Automobile Liability**

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

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

**Workers' Compensation and Employer's Liability**

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

The Contractor and its insurance carrier waives all subrogation rights against the City, a political subdivision of the State of Florida, its officials, employees, and volunteers for all losses or damages. The City requires the policy to be endorsed with WC00 03 13 Waiver of our Right to Recover from Others or equivalent.

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

For any Contractor who has exempt status as an individual, the City requires proof of Workers' Compensation insurance coverage for that Contractor's employees, leased employees, volunteers, and any workers performing work in execution of this Agreement.

If the Contractor has applied for a workers' compensation exemption, the City does not recognize this exemption to extend to the employees of the Contractor. The Contractor is required to provide proof of coverage for their employees, leased employees, volunteers and any workers performing work in execution of this Agreement. This applies to all contractors including but not limited to the construction industry.

**Contractors Pollution Liability Coverage**

For sudden and gradual occurrences and in an amount not less than \$1,000,000 per claim arising out of this Agreement, including but not limited to, all hazardous materials identified under the Agreement.

**Professional Liability and/or Errors and Omissions** (if architectural or engineering services are provided)

Coverage must be afforded for Wrongful Acts in an amount not less than \$5,000,000 each claim and \$5,000,000 aggregate.

Contractor must keep insurance in force until the third anniversary of expiration of this Agreement or the third anniversary of acceptance of work by the City.

**Property Coverage (Builder's Risk)**

Coverage must be afforded in an amount not less than 100% of the total project cost, including soft costs, with a deductible of no more than \$25,000 each claim. Coverage form shall include, but not be limited to:

- All Risk Coverage including Flood and Windstorm with no coinsurance clause
- Guaranteed policy extension provision
- Waiver of Occupancy Clause Endorsement, which will enable the City to occupy the facility under construction/renovation during the activity
- Storage and transport of materials, equipment, supplies of any kind whatsoever to be used on or incidental to the project
- Equipment Breakdown for cold testing of all mechanized, pressurized, or electrical equipment



For installation of property and/or equipment, Contractor must provide Builder's Risk Installation insurance to include coverage for materials or equipment stored at the project site, while in transit, or while stored at a temporary location. Coverage limit must be no less than replacement cost.

This policy shall insure the interests of the owner, contractor, and subcontractors in the property against all risk of physical loss and damage, and name the City as a loss payee. This insurance shall remain in effect until the work is completed and the property has been accepted by the City.

### **Umbrella/Excess Liability**

The Contractor shall provide umbrella/excess coverage with limits of no less than \$2,000,000 excess of Commercial General Liability, Automobile Liability and Employer's Liability.

### **Insurance Certificate Requirements**

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

### **The Certificate Holder should read as follows:**

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

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

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

The Contractor's insurance coverage shall be primary insurance as respects to the City, a political subdivision of the State of Florida, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officials, employees, or volunteers shall be excess of Contractor's insurance and shall be non-contributory.

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

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

All notices of any claim/accident (occurrences) associated with this Agreement, shall be provided to the Contractor's insurance company and the City's Risk Management office as soon as practical.

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

### **Loss Control/Safety**

Precaution shall be exercised at all times by the Contractor for the protection of all persons, including employees, and property. The Contractor shall comply with all laws, regulations, or ordinances relating to safety and health, and shall make special effort to detect hazardous conditions and shall take prompt action where loss control/safety measures should reasonably be expected.

The City may order work to be stopped if conditions exist that present immediate danger to persons or property. The Contractor acknowledges that such stoppage will not shift responsibility for any loss or damages from the Contractor to the City.

## **2.10 Invoices/Payment**

A payment schedule based upon agreed upon deliverables may be developed with the awarded vendor.

The DBF shall submit a proposed schedule of values, after contract award, in a form acceptable to the City and will be required to be approved by the City before any design Work on this Project can commence. The proposed schedule of values shall be broken into two phases for the design and the construction.

During the design phase, the DBF may submit a request for payment monthly based upon percentage of completion of the final plans and specifications. Payment during the

construction phase will be based upon percentage of work/inspections completed for each item in the approved schedule of values. DBF requisition for payment shall show a complete breakdown of the Project components, and the amount due, together with such supporting evidence, as may be required by the Project Manager (PM).

The City agrees that it will pay the DBF per Florida Statutes 218.735. If, at any time during the contract, the City shall not approve or accept the DBF's work product, and an agreement cannot be reached between the City and the DBF to resolve the problem to the City's satisfaction, the City shall negotiate with the DBF on a payment for the work completed and usable to the City. This negotiated payment shall be based on the overall task or project breakdown, relative to the percentage of work completed.

Payment of invoices from the DBF shall be retained by the City per Florida Statute 255.078, until the Project has obtained Final Completion, receipt of as-built, and been accepted by the City.

### **2.11 Payment Method**

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) program which changes how payments are remitted to its vendors. The City has transitioned from traditional paper checks to payment by credit card via MasterCard or Visa. This allows you as a vendor of the City of Fort Lauderdale to receive your payment fast and safely. No more waiting for checks to be printed and mailed. Payments will be made utilizing the City's P-Card (MasterCard or Visa). Accordingly, firms must presently have the ability to accept credit card payment or take whatever steps necessary to implement acceptance of a credit card before the commencement of a contract. See Contract Payment Method form attached.

### **2.12 Price Proposal**

A total Price Proposal (proposed Contract Price) shall be submitted on the Price Proposal Form. The Price Schedule breakdown shall consist of a Not-To-Exceed, Guaranteed Maximum Price (GMP) amount. The Price Proposal shall be based upon and include any and all costs or expenses to be incurred by the DBF in implementing, fulfilling and completing all aspects of the Design-Build Project. The information must include but is not limited to, the design, plans approval, permitting, construction and activation of the project in accordance with the requirements set forth in the City's Request for Proposals and the requirement of any and all agencies or organizations having jurisdiction for project review, permit approval or the design, construction, occupancy, activation, use or operation of the project, or use of the property on which the project is located.

The Price Proposal, in addition to all direct costs and expenses, shall include all other indirect costs and expenses including but not limited to, such costs as the Design-Builder's general, administrative and overhead costs, project management and supervisory costs, all fees, taxes, labor, direct and indirect payroll costs, insurance and bond costs, cost of equipment, materials, tools, transportation, and service fee (profit).

### **2.13 Bid Allowance/Reimbursable**

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

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

<b>Allowance</b>	<b>\$</b>
Permit fees and testing allowance	50,000.00
<b>TOTAL</b>	<b>50,000.00</b>

#### **2.14 City Project Manager**

The Project Manager is hereby designated by the City as, **Jorge Holguin**. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the work in accordance with this Agreement.

For information or questions concerning technical specifications, please utilize the Question/Answer platform provided by BIDSYNC at [www.bidsync.com](http://www.bidsync.com). Questions of a material nature must be received prior to the cut-off date specified in the solicitation.

#### **2.15 Liquidated Damages**

Upon failure of the DBF to substantially complete the entire Contract within the total specified period of time, plus approved time extension, DBF shall pay to the City the sum of **Two Thousand Dollars (\$2000)** for each and every calendar day that the completion of the work is delayed beyond the time specified in this Agreement for completion.

The time frame for liquidated damages shall not commence and thus shall not be tolled until the Project Manager submits the punch list to the DBF. These amounts are not penalties but are liquidated damages to City for its inability to obtain full beneficial use of the Project. Liquidated damages are fixed and agreed upon between the parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by City as consequence of such delay.

#### **2.16 Public Entity Crimes**

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

#### **2.17 Work Schedule**

Except in connection with the safety or protection of persons, or the Work, or property at the site or adjacent thereto, and except as otherwise indicated in the Supplementary Conditions, all work at the site shall be performed during regular working hours between 8:00 A.M. and 4:30 P.M., Monday through Friday.

The Contractor will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday (designated by the City of Fort Lauderdale) without the Project Manager's written consent at least seventy-two (72) hours in advance of starting such work. If the Project Manger permits overtime work, the Contractor shall pay for the additional charges to the City with respect to such overtime work. Such additional charges shall be a subsidiary obligation of the Contractor and no extra payment shall be made to the Contractor for overtime work. It shall be noted that the City's Inspector work hours are from 8:00 A.M. to 4:30 P.M., Monday through Friday, and any Work requiring inspection oversight being performed outside of this timeframe shall be paid for by the Contractor as Inspector overtime. The cost to the Contractor to reimburse the City for overtime inspection is established at \$100.00 per hour.

### **2.18 Contract**

The proposer to whom award is made shall execute a written contract to do the work and maintain the same in good repair until final acceptance by the proper authorities, and shall furnish good and sufficient bonds as specified within fifteen (15) days after receiving such contract for execution. If the bidder to whom the first award is made fails to enter into a contract as provided, the award may be annulled and the contract let to the next highest ranked bidder who is reliable, responsible, and responsive in the opinion of the City, and that proposer shall fulfill every stipulation and obligation as if such proposer were the original highest ranked bidder.

**\*\*END OF SECTION 2\*\***

## SECTION 3 SCOPE OF WORK

### 3.1 Project Objective

The CITY has issued this Request for Proposal (RFP) to solicit competitive proposals for a highly qualified, experienced, and licensed Design Build Firm (DBF), to provide design-build services for the design, permitting, construction, testing and startup of Pump Station A-16 Upgrade - Wastewater DCP in accordance with the terms, conditions, and specifications for the Project .

A new Federal Court House is proposed at the intersection of SE 11th Street and SE 3<sup>rd</sup> Avenue located in the City of Fort Lauderdale. Construction of the proposed Federal Court House will impact an existing wastewater pump station (Pump Station A-16), associated 10-inch gravity sewer and 6-inch force main piping, and a 30-inch water main all currently owned and operated by the City of Fort Lauderdale. The project objective is to relocate all CITY owned wastewater related utilities that impact construction of the new Federal Court House on the proposed site. The existing Pump Station A-16 and associated wastewater piping currently on the new Federal Court House site will also be abandoned. A separate DCP will be provided by the CITY for all work associated with relocating and abandoning all water related utilities that impact construction of the new Federal Court House on the proposed site. The conceptual water main relocation and abandonment to be performed by others is shown on the Conceptual Plans for reference only, but coordination as needed with the separate Design Build Firm responsible for the water system relocations and abandonment is included in this contract and the responsibility of this DBF.

Included in the scope of work are design, permitting and construction, construction management services, as well as inspection, construction certification and all associated work delineated herein or determined by the DBF as required to meet the Project intent. The RFP Documents, including the DCP, Technical Specifications, all exhibits and attachments, and the successful proposal, shall form the terms and conditions of the Contract.

The DBF shall be responsible for design, surveying, geotechnical exploration, preparation of completed permit submittal packages and procurement of all required permits for construction, construction phasing, maintenance of traffic and all other related work or services.

### 3.2 Project Scope

The selected DBF shall perform the complete design, permitting, and construction of all aspects of the PROJECT to fulfill the intent of the PROJECT as described in this Design Criteria Package (DCP) and all supporting documents. Included in the PROJECT is the acquisition of all tools, equipment, materials, and other supplies including but not limited to fuel, power, water, and communication devices required to complete the PROJECT.

The work also includes the performance of all labor, work, and other operations required to complete the PROJECT. All work must be complete with all work, materials, and services not directly specified in the Contract Documents but necessary for the completion of the PROJECT to fulfill the intent of the CITY performed and installed by the DBF at no additional cost to the CITY above what is agreed upon in the Contract Documents.

**Project Shall Include:**

- Construction of a new submersible duplex wastewater pump station with control panel and electrical service (Pump Station A-16) relocated to a site approximately 210 feet east of the SE 4th Avenue and SE 11th Street intersection on SE 11th Street.
- Construction of approximately 220 linear feet of new 18-inch PVC gravity sewer with new sanitary manholes from an existing sanitary sewer manhole located at the intersection of SE 4<sup>th</sup> Avenue and SE 11<sup>th</sup> Street to the new Pump Station A-16 location on SE 11th Street.
- Connection of the new 18-inch PVC gravity sewer piping at the proposed Pump Station A-16 and with the existing manhole at the intersection of SE 4th Avenue and SE 11th Street as shown on the Conceptual Drawings.
- Construction of approximately 2,200 linear feet of new 12-inch HDPE force main from the new Pump Station A-16 on SE 11th Street to a connection point with the CITY's existing 36-inch force main on SE 7th Street. As shown on the conceptual drawings, the proposed 12-inch force main route is along SE 11th Street, SE 3rd Avenue, SE 8th Street, and SE 4th Avenue. The 12-inch HDPE force main is proposed to be installed utilizing HDD methods, requires a subaqueous crossing where SE 3rd Street crosses Tarpon River, and includes approximately 170 linear feet of open cut, 12-inch C900 PVC pipe with DIP fittings at force main connections and bends. All costs associated with existing utility exploration, design development of the complete force main system including HDD and open cut plans and coordination as needed with the separate water related DBF are the responsibility of the DBF.
- Connection of the new 12-inch HDPE force main at the proposed Pump Station A-16 on SE 11th Street and with an existing 36-inch force main at the intersection of SE 4<sup>th</sup> Avenue and SE 7<sup>th</sup> Street as shown on the Conceptual Drawings.
- Abandon and decommission the existing wet pit/dry pit duplex Pump Station A-16 including controls and electrical service located on SE 4<sup>th</sup> Avenue just north of SE 11<sup>th</sup> Street.
- Abandon all existing gravity sewer piping and sanitary manholes on SE 4th Avenue and SE 10th Court associated with the existing Pump Station A-16 as shown on the Conceptual Drawings.
- Abandon all existing force main piping on SE 4th Avenue from the existing Pump Station A-16 to an existing sanitary manhole on SE 4th Avenue just south of SE 9th Court as shown on the Conceptual Drawings.

Additional to the design, permitting, and construction of the PROJECT, the DBF is to perform inspections, construction certification, construction management, public involvement, and all associated work described in the DCP or as determined necessary by the DBF and confirmed by the CITY to fulfill the PROJECT intent. The terms and conditions of the contract shall consist of the RFP documents including the DCP with all exhibits and attachments in addition to the proposal accepted by the CITY.

The DBF will be responsible for the complete design, surveying, permit submittal packages and procurement of all required construction permits that have not been previously acquired by the CITY, construction phasing, dewatering, maintenance of traffic, public involvement, and all other related work/services.

This DCP conveys the minimum requirements of the CITY regarding the design, construction, maintenance of traffic operations, management, and scheduling of the PROJECT including any scheduling and coordination with local, county, and state governments and regulating agencies necessary to obtain permits for construction.

### **3.4 Project Background**

A new Federal Court House is proposed at the intersection of SE 11th Street and SE 3rd Avenue located in the City of Fort Lauderdale. Construction of the proposed Federal Court House will impact an existing wastewater pump station (Pump Station A-16), associated 10-inch gravity sewer and 6-inch force main piping, and a 30-inch water main all currently owned and operated by the City of Fort Lauderdale. The project objective is to relocate all CITY owned wastewater related utilities that impact construction of the new Federal Court House on the proposed site. The existing Pump Station A-16 and associated wastewater piping currently on the new Federal Court House site will also be abandoned. A separate DCP will be provided by the CITY for all work associated with relocating and abandoning all water related utilities that impact construction of the new Federal Court House on the proposed site. The conceptual water main relocation to be performed by others is shown on the Conceptual Plans for reference only.

### **3.5 Project Requirements**

The selected DBF must use effective project management practices while working on the PROJECT. Included in project management is clear communication with the CITY and other parties involved in the PROJECT, management of time and resources, and documentation of all services and communication. Contract administration and technical reviews of all work pertaining to the PROJECT will be performed by the CITY

#### **Site Inventory and Evaluation of City's Criteria Confirmation**

- a. Site investigations, including but not limited to survey, subsurface utility investigations, geotechnical investigations, environmental engineering, to verify existing conditions if necessary.
- b. Preliminary evaluation of proposed site use, material selection, construction systems and equipment and provide recommendations on constructability, time, labor and scheduling factors related to project costs.
- c. No inspection, failure to inspect, or waiver of inspection on the part of the City shall not relieve the DBF of their duty to complete the Work as described in this RFP.
- d. DBF agrees that the price specified on the Price Proposal Form is based on the DBF examination of the site and that no claim for additional compensation shall be made if the conditions encountered differ from those anticipated by such examination.

#### **Design and Construction Criteria**

The selected DBF shall take a comprehensive and thorough technical approach to completing the design-build operation outlined for the PROJECT. Submitted technical



proposals must convey that the DBF has a complete understanding of the PROJECT, its intent, and CITY objectives. Additionally, the technical proposal shall address the following items:

- a-. Completion of construction documents for the PROJECT which must have emergency contact information as required by the CITY.
- b-. Procurement of all required construction permits from local, state, and federal agencies including but not limited to the Florida Department of Transportation, South Florida Water Management District, Broward County Environmental Protection and Growth Management Department, Broward County Highway Construction and Engineering Department, Broward County Environmental Engineering and Permitting, Florida Department of Environmental Protection, U.S. Army Corps of Engineers, and the City of Fort Lauderdale. The DBF must develop permitting strategies and determine possible issues, property easement requirements, testing requirements, and timing for the PROJECT.
- c-. Identification quality control/quality assurance measures to be performed for the PROJECT.
- d-. Production of signed and sealed record drawings following completion of construction of the PROJECT.

### **Detailed Description**

The technical proposal submitted by the DBF shall demonstrate a comprehension of the following design aspects:

- a. Local subsurface conditions and associated geotechnical data.
- b. Open cut excavation and backfilling method of installing pipe and pump stations.
- c. HDD method of installing pipe.
- d. Pump station mechanical and electrical construction.
- e. Subaqueous pipeline crossings.
- f. Connection of new pipe to existing, in-service utilities.
- g. Abandonment of existing utilities.
- h. Landscaping and pavement restoration.
- i. Maintenance of traffic operations.
- j. Dewatering.
- k. Erosion and sediment control.

### **Governing Regulations**

The selected DBF shall provide services in compliance with all regulations and guidelines created by the City of Fort Lauderdale, Florida Department of Transportation, South Florida Water Management District, Broward County Environmental Protection and Growth Management Department, Broward County Highway Construction and Engineering Department, Florida Department of Environmental Protection, U.S. Army Corps of Engineers and the Occupational Safety and Health Administration. These regulations and guidelines are to be followed by the Selected DBF except where explicitly described in this document. The most recent editions of the following publications must be used for the completion of the PROJECT:

- a. Broward County Environmental Protection and Growth Management Department – A Consulting Engineer’s Guide for a Wastewater Collection/Transmission System Construction License Application
- b. Florida Department of Environmental Protection - Division of Water Resource Management Rules and Regulations.
- c. Florida Building Code

- d. South Florida Water Management District – Environmental Resource Permit Information Manual
- e. OSHA Regulations for Construction – Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations
- f. OSHA Standards – Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations
- g. Federal Highway Administration - Manual on Uniform Traffic Control Devices

### **3.6 Services and Materials Provided by the City**

The CITY or its designee will provide the services in the following list:

1. A project manager will represent the CITY as the technical representative of the PROJECT.
2. Review of submitted design for the PROJECT.
3. Construction observations and inspections of the PROJECT at the will of the CITY.
4. Participation in the CITY's Tax Saver Program for the purchase of goods and supplies required for the completion of the PROJECT.

### **3.7 Existing Underground Utility Information**

There are existing underground utilities in the PROJECT site. Limited information such as as-built drawings associated with these utilities has been provided in Section 12. The CITY does not assume responsibility for the accuracy of the utility documents or liability if the locations of these utilities differ from the documents provided. All costs associated with coordinating and locating existing underground utilities is the responsibility of the DBF.

### **3.8 CADD Standards**

All submitted design drawings for the PROJECT shall meet the standards set by the CITY in the "City of Fort Lauderdale Public Works Engineering & Architectural Department CADD Specifications for Project Drawings" (hereinafter referred to as CITY CADD Standards). The selected DBF will comply with the most recent edition of the CITY CADD Standards in place at the time of contract execution. Section 13 includes a copy of the CITY CADD Standards.

### **3.9 Project Permits**

The CITY has not submitted any permit applications or obtained any permits associated with the design or construction of the PROJECT.

It is the responsibility of the DBF as the PROJECT Engineer of Record (EOR) to apply for and obtain all permits as needed to construct the PROJECT.

### **3.10 Topographic and Bathymetric Survey**

The CITY did not obtain any topographic or bathymetric surveys associated with the design or construction of the PROJECT. All conceptual plans are based on scaled aerial drawings. Any topographic or bathymetric survey services as deemed necessary by the selected DBF will be the responsibility of the selected DBF. The selected DBF shall complete signed and sealed as-built documents and submit them to the CITY.

### **3.11 Benthic Characterization Survey**

The CITY did not obtain a benthic characterization survey of the PROJECT area. Any benthic characteristic survey services as deemed necessary by the selected DBF will be the responsibility of the selected DBF.

### 3.12 Geotechnical Report

The CITY did not obtain a Geotechnical Report of the PROJECT area. Any geotechnical services as deemed necessary by the selected DBF will be the responsibility of the selected DBF.

### 3.13 Provisions for Utilities, Dewatering, Staging and Parking

The selected DBF will be required to pay for all utilities needed for the completion of the PROJECT.

The selected DBF shall only perform dewatering activities after acquiring all applicable permits from regulating agencies with jurisdiction in the PROJECT area. Any dewatering operations performed by the DBF must meet conditions of applicable permits. Any dewatering activities performed by the DBF without proper permits or without meeting permit conditions may result in punitive actions to the DBF by the CITY and Broward County.

The selected DBF will be responsible for the coordination of parking and staging area with the CITY prior to mobilization of equipment and crews into the area. Parking and staging areas must remain free of any form of refuse and the removal of any remaining refuse will be the responsibility of the selected DBF.

### 3.14 Project Meetings

The CITY shall require meetings throughout the PROJECT which require the participation of the CITY, selected DBF, all subcontractors, all subconsultants, representatives of governmental agencies with jurisdiction in the PROJECT area, and any others as requested by the CITY and/or DBF. All meetings shall be held at a central site that is convenient to all parties. Following the written Notice to Proceed, the DBF shall coordinate with the CITY to hold a preconstruction meeting. All following meetings shall likewise be organized by the DBF upon instruction from the CITY. The DBF shall prepare meeting minutes.

### 3.15 Construction Duration

Time is of the essence for the DBF's performance of the Work. The selected DBF is expected to complete the PROJECT as expeditiously as possible. At minimum, the selected DBF must adhere to the following schedule as set by the CITY:

<b>MILESTONE</b>	<b>CALENDAR DAYS FROM NOTICE TO PROCEED (COMPLETION DATE)</b>
Assumed Notice to Proceed Date	TBD
Substantial Completion of PROJECT	September 30/2022
Final Completion of PROJECT	October 31/2022

Within seven days after notification of award and as a condition precedent to executing the Contract, prior to the start of any work, the DBF shall submit their preliminary construction schedule to City for approval which shall be consistent with the Schedule in its Proposal. The Schedule shall be written in sufficient detail to show the chronological relationship of all major aspects of the project, including estimated starting and completion dates of various activities, design phase, procurement of materials, scheduling of equipment, and construction phase with a level of detail commensurate with the level of detail in the Proposal. The schedule is subject to approval by City.

Failure to meet milestones on the above schedule will result in liquidated damages to be paid by the selected DBF as described in the CITY's general conditions.

**\*END OF SECTION 3\*\***

## SECTION 4 SUBMITTAL REQUIREMENTS

### Section IV – Submittal Requirements

#### 4.1 Instructions

- 4.1.1** The City of Fort Lauderdale uses BIDSYNC ([www.bidsync.com](http://www.bidsync.com)) to administer the competitive solicitation process, including but not limited to soliciting responses, issuing addenda, posting results and issuing notification of an intended decision. There is no charge to register and download the RFP from BIDSYNC. Offerors are strongly encouraged to read the various vendor Guides and Tutorials available in BIDSNYC well in advance of their intention of submitting a response to ensure familiarity with the use of BIDSYNC. The City shall not be responsible for an Offeror's inability to submit a response by the end date and time for any reason, including issues arising from the use of BIDSYNC.
- 4.1.2** Careful attention must be given to all requested items contained in this RFP. Consultants are invited to submit responses in accordance with the requirements of this RFP. Please read entire solicitation before submitting a proposal. Consultants must provide a response to each requirement of the RFP. Responses should be prepared in a concise manner with an emphasis on completeness and clarity. Consultant's notes, exceptions, and comments may be rendered on an attachment, provided the same format of this RFP text is followed.
- 4.1.3** All information submitted by DBF shall be typewritten or provided as otherwise instructed to in the RFP. DBFs shall use and submit any applicable or required forms provided by the City and attach such to their response. Failure to use the forms may cause the response to be rejected and deemed non-responsive.
- 4.1.4** Responses shall be submitted by an authorized representative of the firm. Responses must be submitted in the business entities name by the President, Partner, Officer or Representative authorized to contractually bind the business entity. Responses shall include an attachment evidencing that the individual submitting the response, does in fact have the required authority stated herein.
- 4.1.5** All responses will become the property of the City. In the event of Contract award, all documentation produced as part of the Contract shall become the exclusive property of the City. All proposals will become the property of the City. The Proposer's response to the RFP is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this RFP and the Contract to be executed for this RFP, subject to the provisions of Chapter 119.07 of the Florida Statutes. Any language contained in the Proposer's response to the RFP purporting to require confidentiality of any portion of the Proposer's response to the RFP, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City which the Proposer claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Proposer shall clearly designate that

it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer's response to the RFP constitutes a Trade Secret. The city's determination of whether an exemption applies shall be final, and the Proposer agrees to defend, indemnify, and hold harmless the city and the city's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the city's treatment of records as public records. In the event of Contract award, all documentation produced as part of the Contract shall become the exclusive property of the City.

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

DBF shall:

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

#### 4.1.6 Submittals

Please be advised that effective immediately, and until further notice, all Technical and Price Proposals offers to this Request For Proposal, shall be submitted “**electronically**” via BidSync and will be opened “**electronically**” via [BIDSYNC.COM](https://BIDSYNC.COM) at the date and time indicated on the solicitation. **PAPER BID SUBMITTALS WILL NOT BE ACCEPTED. BIDS MUST BE SUBMITTED ELECTRONICALLY VIA BIDSYNC.COM**

The DBF should concisely follow the format set out herein and provide all the information requested:

It is the sole responsibility of the Proposer to ensure their proposal is received on or before the date and time stated, in the specified number of copies and in the format stated herein.

#### 4.2 Contents of Qualification Statement/Submittals:

The following information and documents are required to be provided with DBF response to this RFP. Failure to do so may deem your Proposal non-responsive or non-responsible. The City deems certain documentation and information important in the determination of responsiveness/responsibility, and for the purpose of evaluating responses. Responses should seek to avoid information in excess of that requested, must be concise, and must specifically address the issues of this RFP. The following checklist is not inclusive of all the information that may be necessary to properly evaluate the response and meet the requirements of the scope of work and/or specifications. Additional documents and information should be provided as deemed appropriate by the Proposer in response to specific requirements stated herein or through the RFP.

#### Table of Contents

##### 4.2.1 Proposal Contact Person Information

Indicate which firm/company is the Lead Design-Builder whose signature grants authority to bind submitter to the provisions of this RFP.

Identify the following:

- Legal name of proposer(s)
- Federal employee identification (FEIN) number
- Mailing address City State Zip
- Contact person’s name
- Title
- Email address
- Phone number
- Fax number

Any firm/company qualifying as a minority entity to this RFP should also be identified in the same manner. If there are multiple firms proposed as one team, each firm must be identified.

## 1.2.2 **QUALIFICATIONS OF THE FIRM**

### 4.2.2.1 **Minimum Qualifications**

The Proposer shall have the following Minimum Qualifications to be considered eligible to submit a Proposal in response to this Solicitation. It is the responsibility of the Proposer to ensure and certify that it meets the Minimum Qualifications stated below.

A Proposer not meeting all of the following criteria will have their Proposal rejected:

- D&B team must have vast experienced in the abandonment of existing utilities and construction of sewage pump stations and all its components, including instrumentation and controls as stipulated and required by the specifications and plans. Successfully completed at least Two (3) collaborative delivery (Design-Build) projects in the last ten (10) years with a contract value of at least \$3,000,000.00 of similar Scope.
- The Proposer shall provide evidence of bonding capacity, in the form of a letter from a surety or insurance company, on its letterhead stating that the Proposer is capable of obtaining separate performance and payment bonds to cover a minimum amount of \$5,000,000.00.

### **Licensure**

- The Proposer shall be licensed as a General Contractor in the State of Florida at the time of submittal of its RFP shall maintain licensure for the duration of the Design-Build Contract.
- The Proposer's Engineer shall be licensed as a Professional Engineer in the State of Florida and shall maintain licensure for the duration of the Design-Build Contract.

### **Business Structure**

- Provide a brief introduction narrative letter highlighting the qualifications of the firm in providing the professional services as it relates specifically to the project;
- Corporations, Joint Ventures, LLC or Partnerships – submit a copy indicating when the corporation was organized as a legal entity in the State of Florida, corporation number.
- Any firm(s) involved in a joint venture in this Proposal will be evaluated individually. An executed copy of the joint venture agreement must be submitted with the proposal. Percentages of participation of fees must be clearly stated for each joint venture partner;
- Include copies of all active State of Florida professional licenses, including professional engineers, State of Florida certifications; State of Florida certified general contractors license with unlimited building classification, held by the Firm under Florida Law to provide the required services;
- Names of Key Personnel and Role in this project
- Name, title, name of firm, phone number, fax number, and email
- Demonstrate your firm's ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the Insurance Companies names for both Professional Liability, General Liability, Automobile Liability, Worker's



Compensation, and Professional Liability and/or Errors and Omissions, evidencing the dollar amounts of the coverage.

### **Workload of the Firm**

For the prime DBF, or in the case of a Joint Venture (JV), list all completed and active projects that DBF or JV has managed within the past five years. In addition, list all projected projects and dollar value that DBF or JV will be working on in the near future.

Projected projects will be defined as a project(s) that DBF or JV has been awarded a contract, but the Notice to Proceed has not been issued. Identify any projects that DBF or JV is working on concurrently and dollar value of remaining work. Describe Vendor's approach in managing these projects. Were there or will there be any challenges for any of the listed projects? If so, describe how Vendor dealt with or will deal with the projects' challenges.

### **Joint Ventures**

If applicant is a joint venture, provide a copy of the joint venture agreement that was filed with the State of Florida. All applicants must comply with Chapter 489 Florida Statutes, as well as the Florida Administrative Code **prior to the proposal submission.**

### **Firms Past Experience**

Firms should submit any information they deem appropriate for evaluation of past performance with projects similar in nature to the one under consideration by the City.

- Title of example project;
- Location of example project;
- Client name/owner's representative name, address, phone number, and email;
- Date project started and completed or is anticipated to be completed; Point of contact name and organization which contracted the service who is very familiar with the project and the firm's performance and phone number and email;
- Brief description of Project relevance to this contract;
  - Original budget vs. Final cost
  - Principal elements and special features of the project.
  - Details of project value engineering; cost savings realized; innovative solutions; project time enhancement; value added efforts; etc.
  - Present status of project.

### **Key Personnel**

The DBF shall provide a maximum of seven (7) resumes of the key staff to be assigned to perform the Work. The resumes provided shall identify the Project Manager, Design Manager, DBF or General Superintendent, Project Quality Control Manager, Scheduler/Project Controls Specialist, Project Health and Safety Manager. These Primary positions shall only serve in one (1) role.

NOTE: The Project Manager must be an employee from the DBF or JV submitting the Proposal and not a Subconsultant or not a Subcontractor. Persons whose

resumes are submitted as a Team Member must actually perform the Work unless DBF/JV receives prior approval by the CITY Project Manager to use a backup Team Member.

Provide an organization chart for proposed Team Member key personnel staff, including subconsultants and subcontractors.

### **Concerning Subconsultants, suppliers, and Others**

The amount of work that is sublet by the DBF, including Joint Ventures, shall be limited by the condition that the DBF, or in the case of a Joint Ventures, shall with his own organization, perform at least forty percent (40%) of the total dollar amount of the Work to be performed under the Agreement.

### **Safety**

Most recent Experience Modification Rate (EMR) (provided on letterhead from current insurance provider) not greater than 1.0; Five-year average OSHA Total Recordable Incident Rates (TRIR) of less than 3.4; Five-year average OSHA Days Away, Restricted or Transferred (DART) Rate of less than 2.1; and Five-year average OSHA Days Away from Work Case (DAWC) rate of less than 1.0.

#### **4.2.3 QUALIFICATIONS OF THE TEAM**

The DBF must identify all design and construction disciplines and specialty consultants that the DBF intends to employ in the design and construction of this Project.

- Name and title of each proposed team member;
- Years' experience;
- Area of responsibility;
- Firm name and location;
- Education – provide information on the highest relevant academic degree(s) received and areas of specialization;
- Current professional registration; license(s)
- Provide information on any other professional qualifications relating to this team member such as publications, organizational memberships, certifications, training, awards, and foreign language capabilities;

For each key personnel, a minimum of three (3) alternate delivery projects on which they held a key delivery role should be included. Resumes should clearly identify and describe the role of the Key Personnel, in each project listed. Resumes shall also identify any specialty or technical process expertise. **Resumes shall not be more than two (2) pages each on 8.5" x 11" sized paper. No more than seven (7) resumes should be submitted.**

### **Sub-consultant(s)**

DBF must clearly reflect in its Proposal any Sub-consultant including but not limited to the Project Manager, Design Manager, DBF or General Superintendent, Project Quality Control Manager, Scheduler/Project Controls Specialists, Project Health and Safety Manager (collectively, the "Team Members"), proposed to be utilized along with a summary of their background and qualifications, including but not limited to name of the sub-consultant, location of place of business, service(s) the sub-consultant will provide, license (if applicable), two (2) sub-consultant

references, ownership, education, and experience. These Primary positions shall only serve in one (1) role. The City retains the right to accept or reject any Sub-consultant proposed.

#### **4.2.4 Project Manager's Experience**

Provide a comprehensive summary of the experience and qualifications of the individual(s) who will be selected to serve as the project managers overseeing the design and construction for the City. Individual(s) must have a minimum of five (5) years' experience in required discipline and have served as project manager on a minimum of three (3) previous occasions. Include their related work experience and qualification and copies of active licenses and certifications. Include the length of tenure with Firm.

All proposed team Project Managers must be committed for the duration of the Project and must have the City's approval prior to replacement.

#### **Example Projects**

- Illustrate proposed team member's qualifications preferably where multiple team members worked together in the past five (5) years on similar projects. including projects that involve design, permitting, and construction including:
  - Title and location of project
  - Year started and completed
  - Project owner, point of contact, point of contact phone number, and email
  - Initial cost of project and actual cost at completion
  - Brief description of project and relevance to this project.
- Provide organizational chart of proposed team:
  - Indicate names and titles of all team members and the firm they are associated with.
- Resumes of key team members proposed for this project.

#### **4.2.5 Project Methodology & Approach**

- Provide a statement of the firms understanding of the project and methodology and approach to managing the project. Include a plan for completing the specified work including ability to meet time and budget requirements;
- Provide a conceptual design for the proposed Project. Include design, construction, planning, coordination, scheduling, maintainability and any other areas that utilize new or time saving techniques to accomplish the work in a timely manner without sacrificing quality. Include the maintainability of the water main and force main;
- Describe approach to minimizing impact to surrounding neighbors, businesses, and travelling public;
- Describe approach for minimizing lane closures, lanes reductions, maintenance of traffic (MOT) plan, and reducing traffic impacts;
- Describe means and methods for expediting project schedule;
- Provide information on your firm's current workload and how this project will fit into your workload;
- Describe available facilities, technological capabilities and other available resources you offer for the project.

#### 4.2.6 **References**

The DBF shall have previous experience in the design, permitting, construction aspects of the project as describe in this RFP, of PROJECT DESCRIPTION, in the State of Florida within the last ten (10) years.

DBF shall submit proof of design, permitting, and construction experience for a minimum of three (3) projects or any information they deem appropriate for evaluation of past performance with projects similar in scope and scale (or larger) to the one under consideration; and shall, for each project listed, including but not limited to:

- Client Name, address, contact person telephone, fax numbers, and email addresses.
- Project name and overall scope.
- Dates of construction.
- Description of work that was self-performed.
- Details of project value engineering; cost savings realized; innovative solutions; project time enhancement; value added efforts; etc.
- Total cost of the construction, estimated and actual.

The DBF shall be responsible for verifying reference contact name, phone number, email addresses, and contact place of employment, submitted as proof of project experience.

***Note: Do not include only the City of Fort Lauderdale work or staff references as a demonstration of your capabilities. The Committee is interested in details of work experience and references other than the City of Fort Lauderdale.***

Proposer's shall mark any pages of the Submittal it considers proprietary or confidential accordingly. Proposer shall state what proprietary or confidential governing law the Proposer is stating to claim such relief. Information will be treated as such by the City; provided, however, that the City cannot ensure that this information would not be subject to release pursuant to a public disclosure request. If a request for such information is received, the City will promptly notify the Proposer of such request and it shall be the Proposer's sole burden and responsibility to immediately seek and obtain such injunctive or other relief from the Courts and to immediately serve notice of the same upon the party requesting the public records.

#### 4.2.7 **Price Proposal Form**

Proposer must submit the Price Proposal Form included in this RFP. In addition to submitting the required Price Proposal Form, the Proposer must include a separate Schedule of Values for each phase or task of work. This Schedule of Values and Price Proposal form shall also be submitted in electronic Microsoft Excel format with detailed breakouts of pricing and supporting calculations and organizational structure. The price proposal shall be based upon and include any and all costs or

expenses to be incurred by the DBF in implementing, fulfilling and completing all aspects of the design-build project. The price proposal, in addition to all direct costs and expenses, shall include all other indirect costs and expenses including but not limited to, such costs as the design-builder's general, administrative and overhead costs, project management and supervisory costs, all fees, changes and taxes, labor, direct and indirect payroll costs, insurance and bond costs, cost of equipment, materials, tools, transportation, and service fee (profit).

#### **4.2.8 Contract Forms**

All contract forms must be completed (with all blanks filled in), and executed.

**a. Statement of Qualification Certification**

Complete and attach the Statement of Qualification Certification.

**b. Non-Collusion Statement**

This form is to be completed, if applicable, and inserted in this section.

**c. Contract Payment Method**

This form must be completed and returned with your proposal. Proposers must presently have the ability to accept these credit cards or take whatever steps necessary to implement acceptance of a card before the start of the contract term, or contract award by the City.

**d. Sample Insurance Certificate**

Demonstrate your firm's ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the Insurance Companies names for both Professional Liability and General Liability and the dollar amounts of the coverage.

**e. Non-Discrimination Certification Form**

**f. Trench Safety**

**g. Prime DBF Identification**

**h. E-Verify Affirmation Statement**

**i. Bid Proposal Certification**

**j. Acknowledgment of Addenda**

**k. Proposal Bond**

**4.3** Before awarding a contract, the City reserves the right to require that a firm submit such evidence of his/her qualifications as the City may deem necessary. Further, the City may consider any evidence of the financial, technical, and other qualifications and abilities of a firm or principals, including previous experiences of same with the City and performance evaluation for services, in making the award in the best interest of the City.

## **SECTION 5 EVALUATION AND SELECTION CRITERIA**

### **5.1 Evaluation Criteria and Scoring (100 Percentage)**

Design-Build Team’s responses to this RFP will be evaluated and ranked by an RFP Evaluation Committee. Submittals shall be evaluated based upon the information and references contained in the Proposals as submitted.

**UPDATE**

Qualifications of the Firm & the Team	Percent
Project Methodology & Approach	Percent
Price Proposal	30 Percent
References	Percent

### **5.2 EVALUATION PROCEDURE**

**Committee**

Evaluation of the submittals will be conducted by an Evaluation Committee, consisting of a minimum of three (3) members of City Staff, or other persons selected by the City Manager or designee. All committee members must be present at scheduled evaluation meetings. Submittals shall be evaluated based upon the information and references contained in the Proposals as submitted. Any firm(s) involved in a joint venture in its Proposal will be evaluated individually, as each firm of the joint venture would have to stand on its own merits.

**Scoring and Ranking**

The City uses a mathematical formula to determine the scoring for each individual responsive and responsible firm based on the weighted criteria stated herein. Each evaluation committee member will rank each firm by criteria, giving their first ranked firm as number 1, the second ranked firm as number 2, and so on. The lowest final ranking score will determine the recommendation by the evaluation committee to the City Manager.

**Clarification**

During the evaluation process, the City has the right to require any clarification it needs in order to understand the DBF’s view and approach to the project scope of the work. Any clarifications to the Proposal made before executing the contract will become part of the final DBF contract.

**Negotiations**

The City Manager or designee reserves the right to conduct contract negotiations with the selected responsible, responsive DBF. If successful, the DBF and City will enter into a contract for the work. All proposers are considered fully informed as to the intentions of the City regarding the timeframe to prepare and complete contract negotiations.

If the City is unable to negotiate a satisfactory design-build contract with the design-build firm considered to be the most qualified, negotiations with that design-build firm shall be formally terminated. Upon termination of said negotiations, negotiations shall then be undertaken with the second ranked firm, with this process being repeated until an agreement is reached which is then recommended and formally approved by the City Commission or until the short-list is exhausted in which case a new RFP may be undertaken.

The City may withdraw this RFP, reject qualifications or any portion thereof at any time prior to an award, and is not required to furnish a statement of the reason why a particular qualification was not deemed to be the most advantageous to the City.

**Consult Design Criteria Professional**

The City shall consult with the design criteria professional who prepared the package concerning evaluation of the proposals, approval of detail work and drawings for the project and compliance of project construction with the package.

**Award**

The City reserves the right to award a contract to that DBF who will best serve the interest of the City. The City reserves the right, based upon its deliberations and in its opinion, to accept or reject any or all submittals. The City also reserves the right to waive minor irregularities or variations of the submittal requirements and RFP process and any informality in any proposal and to reject any or all proposals. The City reserves the right to reduce or delete any of the proposal items.

Upon award of a Contract, in accordance with Florida Statutes, by the City Commission, the City Manager is authorized to execute the Contract on behalf of the City.

At time of award of contract, the City reserves the right to set a guaranteed maximum price limit that may be expended on this project. Contract quantities of any or all items may be increased, reduced, or eliminated to adjust the contract amount to coincide with the amount of work necessary or to bring the contract value to within the established limit.

**Exceptions**

Any Proposer that objects to any element of the solicitation documents including but not limited to the RFP, DCP, drawings, construction time frame, sample agreement, general terms and conditions, etc. should state those objections in the submittal.

**\*\*END OF SECTION 5\*\***

**SECTION 6  
PRICE PROPOSAL FORM**

**PUMP STATION A-16 UPGRADE  
WASTEWATER DESIGN CRITERIA PACKAGE  
CITY OF FORT LAUDERDALE, PROJECT NO. 12412**

The selected DBF shall perform the complete design, permitting, and construction of all aspects of the PROJECT to fulfill the intent of the PROJECT as described in this Design Criteria Package (DCP) and all supporting documents.

<b>Bid Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost</b>
	<b>DESIGN</b>				
1	Design Development	LS	1		
2	Construction Administration	LS	1		
	<b>CONSTRUCTION</b>				
	<b>General</b>				
3	Mobilization	LS	1		
4	Maintenance of Traffic	LS	1		
5	Bypass pumping	LS	1		
6	Site restoration	LS	1		
	<b>Force Main</b>				
7	Abandon existing 6" force main, cut and cap	EA	2		
8	Install 12" HDPE force main, horizontal directional drill (HDD)	LF	2,150		
9	Install 12" C900 PVC pipe/DIP fittings for HDD force main connections, open cut	LF	170		
10	Install 12" plug valves	EA	1		
11	Install wastewater air release valve with vault	EA	2		
12	Install 36" X 12" tapping sleeve and valve	EA	1		
	<b>Gravity Sewer</b>				
13	Abandon existing 10" sanitary sewer, cut and cap	EA	9		
14	Modify existing sanitary manhole/cap existing 6" force main connection	LS	1		



15	Modify existing sanitary manhole/cap existing 10" sanitary sewer connection/new 18" sanitary sewer connection	LS	1		
16	Abandon existing sanitary manhole	EA	3		
17	Install 18" PVC sanitary sewer	LF	220		
18	Install sanitary sewer manhole	EA	2		
	<b>Pump Station</b>				
19	Demolition of pump station dry pit, wet well structures, and equipment	LS	1		
20	Install new 12' ID, duplex submersible pump station with valve vault, 45 HP pumps	LS	1		
21	Install new magnetic flow meter manhole assembly	LS	1		
22	Pump station site improvements	LS	1		
23	Install new electrical service	LS	1		
24	Install new control panel system and electrical pump station components	LS	1		
	<b>PERMIT FEE AND TESTING ALLOWANCE</b>				
25	Permit Fee and Testing Allowance	LS	1	\$50,000.00	\$50,000.00

**TOTAL BID AMOUNT** \$ \_\_\_\_\_

**TOTAL BID AMOUNT (IN WORDS)** \_\_\_\_\_

1. The prices listed in the Price Proposal Forms shown above shall include the total cost to complete the Work including but not limited to materials, labor, equipment, profit, bonds, insurances, etc., as necessary to ensure proper execution of the design-build services and products requested by the City of Fort Lauderdale. Any pricing, quantities, costs or services that are not listed above, and are known to be required, must be added by the Proposal and listed on a separate sheet and included in the total.
2. I hereby certify that I am authorized to act on behalf of the firm, individual, partnership, corporation or association making this proposal and that all statements made in this document are true and correct to the best of my knowledge. I agree to hold this proposal open for a period of one hundred and eighty (180) days from the deadline for receipt of proposals.

- 3. I understand and agree to be bound by the conditions contained in the Request for Proposal and shall conform with all requirements of the Request for Proposal.

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Name: (Please Print)

---

Proposer Signature Title: Date:

## GENERAL CONDITIONS

**Unless otherwise modified in the Projects Special Conditions, the following General Conditions shall be part of the Contract:**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**GC - 09 - DISEASE REGULATIONS** - The Contractor shall enforce all sanitary regulations and take all precautions against infectious diseases as the Public Works Director may deem necessary. Should any infectious or contagious diseases occur among his employees, he shall arrange for the immediate removal of the employee from the Site and isolation of all persons connected with the Work.

**GC - 10 - CONTRACTOR TO CHECK PLANS, SPECIFICATIONS, AND DATA** - The Contractor shall verify all dimensions, quantities, and details shown on the plans, supplementary drawings, schedules, or other data received from the Public Works Director, and shall notify the Public Works Director of all errors, omissions, conflicts and discrepancies found therein within three (3) working days of discovery. Failure to discover or correct errors, conflicts, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory Work, faulty construction, or improper operation resulting therefrom nor from rectifying such condition at its own expense.

**GC - 11 - SUPPLEMENTARY DRAWINGS** - When, in the opinion of the Public Works Director, it becomes necessary to explain more fully the Work to be done, or to illustrate the work further, or to show any changes which may be required, drawings, known as supplementary drawings, with specifications pertaining thereto, will be prepared by the Public Works Director and copies will be given to the Contractor.

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

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

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

**GC - 13 - SAFEGUARDING MARKS** - The Contractor shall safeguard all points, stakes, grade marks, monuments, and bench marks made or established on the Work, bear the cost of re-establishing same if disturbed, or bear the entire expense of rectifying Work improperly installed due to not maintaining or protecting or for removing without authorization, such established points, stakes and marks. The Contractor shall safeguard all existing and known property corners, monuments and marks not related to the Work and, if required, shall bear the cost of having them re-established by a licensed surveyor if disturbed or destroyed during the course of construction.

**GC - 14 - EXISTING UTILITY SERVICE** - All existing utility service shall be maintained with a minimum of interruption at the expense of the Contractor.

**GC - 15 - JOB DESCRIPTION SIGNS** – Contractor, at Contractor’s expense, shall furnish, erect, and maintain suitable weatherproof signs on jobs over \$100,000 containing the following information:

1. City Seal (in colors)
2. Project or Improvement Number
3. Job Description
4. Estimated Cost
5. Completion Date

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

**GC - 16 - FLORIDA EAST COAST RIGHT-OF-WAY** - Whenever a City contractor is constructing within the Florida East Coast Railway Company's Right-of-Way, it will be mandatory that the contractor carry bodily injury and property damage insurance in amounts satisfactory to the Florida East Coast Company. This insurance requirement shall be verified by the contractor with the Florida East Coast Company prior to commencing work, and maintained during the life of the Contract.

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

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

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

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

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

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

**GC - 20 - PLACING BARRICADES AND WARNING LIGHTS** - The Contractor shall furnish and place, at his own expense, all barricades, warning lights, automatic blinker lights and such devices necessary to properly protect the work and vehicular and pedestrian traffic. Should the Contractor fail to erect or



maintain such barricades, warning lights, etc., the Public Works Director may, after 24 hours' notice to the Contractor, proceed to have such barricades and warning lights placed and maintained by City or other forces and all costs incurred thereof charged to the Contractor and may be retained by the City from any monies due, or to become due, to the Contractor.

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

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

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

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

Each Contractor shall be responsible for any damage done by it or its agents to the work performed by another contractor.

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

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

**GC - 24 - PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES** - As to any contract for goods or services of \$1 million or more and as to the renewal of any contract for goods or services of \$1 million or more, subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed*, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and that it does not have business operations in Cuba or Syria, as provided in section 287.135, Florida Statutes (2019), as may be amended or revised. As to any contract for goods or services of any amount and as to the renewal of any contract for goods or services of any amount, the Contractor certifies that it is not on the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2019), and that it is not engaged in a boycott of Israel. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2019), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2019), or is engaged in a boycott of Israel or has been

engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2019), as may be amended or revised.

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

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

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

Any language contained in the Proposer's response to the Solicitation purporting to require confidentiality of any portion of the Proposer's response to the Solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City which the Proposer claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Proposer shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer's response to the Solicitation constitutes a Trade Secret. The City's determination of whether an exemption applies shall be final, and the proposer agrees to defend, indemnify, and hold harmless the City and the City's officers, employees, and 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. In addition, the proposer agrees to defend, indemnify, and hold harmless the City and the 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 exempt from disclosure or confidential. Proposals purporting to be subject to copyright protection in full or in part will be rejected. The proposer authorizes the City to publish, copy, and reproduce any and all documents submitted to the City bearing copyright symbols or otherwise purporting to be subject to copyright protection.

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

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

**Telephone Number: (954) 828-5002**

CAM 22-0161  
Exhibit 1A  
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**Mailing Address:**                   **City Clerk's Office**  
   **100 N. Andrews Avenue**  
   **Fort Lauderdale, Florida 33301-1016**

**E-mail:**                               **prcontract@fortlauderdale.gov**

Contractor shall:

1. Keep and maintain public records required by the City in order to perform the service.
2. Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes (2019), as may be amended or revised, or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of this contract if the Contractor does not transfer the records to the City.
4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

Rev. 5/8/2020

AGREEMENT

Between

CITY OF FORT LAUDERDALE

and

\_\_\_\_\_.

for

DESIGN/BUILD SERVICES FOR

TITLE

Project Number 12412

REQUEST FOR PROPOSAL NO. 12600-125

Sample Agreement

This Agreement made and entered into this 9th day of September, 2021, between the CITY OF FORT LAUDERDALE, FLORIDA, a municipal corporation of the State of Florida, hereinafter referred to as “CITY” and \_\_\_\_\_, a Florida Corporation authorized to transact business in Florida, its successors and assigns, hereinafter referred to as “DESIGN/BUILD FIRM,” or collectively the “Party” or “Parties.”

WITNESSETH, in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, CITY and DESIGN/BUILD FIRM agree as follows:

## ARTICLE 1- DEFINITIONS AND IDENTIFICATIONS

For the purposes of this Agreement and the various covenants, conditions, terms and provisions which follow, the definitions set forth below are assumed to be true and correct and are agreed upon by the Parties.

**Agreement** - This document, inclusive and including all exhibits and documents that are expressly incorporated by reference.

**Applicable Laws** - All federal, state, county, and local statutes, codes, laws, rules, regulations, ordinances, orders and standards applicable to the Project and any other such law hereafter enacted, and any rules adopted pursuant thereto, as all such laws may be amended from time to time to perform the Work.

**Change Order** - A written document ordering a change in the Not To Exceed Guaranteed Maximum Price or Contract Time or a material change in the Work.

**CITY** - The CITY (or Owner) shall mean the City of Fort Lauderdale, a Florida municipal corporation, having its principal offices at 100 North Andrews Avenue, Fort Lauderdale, Florida 33301, which is a Party hereto and/or for which this Agreement is to be performed. In all respects hereunder, CITY’s performance is pursuant to CITY’s position as the owner of a construction project. In the event CITY exercises its regulatory authority as a governmental body, the exercise of such regulatory authority and the enforcement of any rules, regulations, laws and ordinances shall be deemed to have occurred pursuant to the CITY’s regulatory authority as a governmental body and shall not be attributable in any manner to CITY as a party to this Agreement.

**CITY Commission** - CITY Commission shall mean the governing and legislative body of the CITY.

**CITY Manager** - CITY Manager shall mean the Chief Administrative Officer of the CITY.

**Construction Documents Phase** - The phase in which DESIGN/BUILD FIRM will consult with Project Manager and prepare the Construction Documents for the Project, based upon the information provided in the Design Criteria Package (DCP), for review and approval of the CITY (including, without limitation, any and all applicable CITY departments) and any applicable regulatory agencies.

**Construction Manager** - The Construction Manager is the authorized individual or firm which is the representative of the DESIGN/BUILD FIRM, who/which will administer/manage the construction effort on behalf of the DESIGN/BUILD FIRM.

**Construction Phase** - The phase which constitutes DESIGN/BUILD FIRM's administration of the construction of the Project and all activities necessary for the completion of the Project.

**Consultant** - The person or entity who is a registered architect, professional engineer, professional land surveyor, and/or registered landscape architect having a contract with DESIGN/BUILD FIRM to provide professional services for the design of the Project, and who is licensed by the State of Florida to provide said services.

**Contract Documents** - This Agreement, as approved by the Mayor and CITY Commission and its exhibits, attachments and forms, any addenda, performance bond and payment bond, plans and specifications (as approved and permitted) as prepared by the DESIGN/BUILD FIRM in accordance with the information provided in the DCP, Notice of Award, Notice(s) to Proceed, and any and all agreed upon contract and/or design modifications, including but not limited to change orders; Project schedule; a schedule of values, and any additional documents the submission of which is required by this Agreement. When reference is made in the Contract Documents to publications, standards or codes issued by associations or societies, the intent shall be to specify the current or adopted edition of such publication or standard including revision and effect on the date of the issuance of all applicable permits.

**Contract Time** - The time between the Project Initiation Date specified in the Notice to Proceed and final completion, including any milestone dates thereof, established in the Agreement, as may be amended by Change Order.

**Contract Price** - The Not to Exceed Guaranteed Maximum Price agreed to between DESIGN/BUILD FIRM and the CITY. The Contract Price is not subject to increase, except as expressly allowed within the Contract Documents.

**Design/Build Firm - VENDOR.**, its successors and assigns, is the DESIGN/BUILD FIRM selected to perform the Work pursuant to this Agreement, and is the person, firm or corporation liable for the acceptable performance of, and payment of, all legal debts pertaining to the Project. All references in the Contract Documents to third parties under contract or control of DESIGN/BUILD FIRM shall be deemed to be a reference to DESIGN/BUILD FIRM. The DESIGN/BUILD FIRM will be responsible for the provision, installation, and performance of all equipment, materials, services and Work. The DESIGN/BUILD FIRM is in no way relieved of the responsibility for the performance of all equipment furnished.

**Design Criteria Package (DCP)** - DCP shall mean those certain conceptual plans and specifications and performance-oriented drawings or specifications of the Project, as prepared and sealed by the Design Criteria Professional, and in compliance with the requirements of Section 287.055, Florida Statutes.

**Design Criteria Professional** - Design Criteria Professional shall mean the individual or entity who/which holds a current certificate as a registered engineer under Chapter 471 to practice engineering and who/which is employed by or retained by the CITY to provide professional services in compliance with the requirements of Section 287.055, Florida Statutes, and in connection with the preparation of the DCP who/which shall review and provide recommendations regarding the Construction Documents prepared by the DESIGN/BUILD FIRM for the Project, and evaluate compliance of Project construction with the DCP.

**Field Order or Supplemental Instruction** - A written order for minor changes or interpretations of the Contract Documents, but which does not involve a change in the Not To Exceed Price or Contract Time.

**Final Completion** - The date certified by the Project Manager that all conditions of the permits and regulatory agencies have been met; all construction, including corrective and punch list work, has been performed and accepted by the CITY; all administrative requirements of the Contract Documents have been completed; and CITY has received from DESIGN/BUILD FIRM all necessary documentation, as deemed required by the CITY including, but not limited to, the following: all final releases of liens, consent of surety, release of claims by DESIGN/BUILD FIRM, correct as-built drawings, a final bill of materials, executed final adjusted Change Orders, final invoice, copies of pertinent test results, correspondence, warranties, guarantees, operational manuals, spare parts, service contracts and tools.

**NOT TO EXCEED PRICE (NTE)** - THE MUTUALLY AGREED UPON CONTRACT PRICE TO BE PAID OF \_\_\_\_\_ TO THE DESIGN/BUILD FIRM, AND THAT THE DESIGN/BUILD FIRM GUARANTEES NOT TO EXCEED, FOR ALL LABOR, EQUIPMENT, AND MATERIALS TO DESIGN, PERMITS (AS REQUIRED BY THE CONTRACT DOCUMENTS), ADMINISTER, COORDINATE, INSPECT, CONSTRUCT AND INSTALL THE PROJECT WITHIN THE CONTRACT TIME. THE DOLLAR AMOUNT SHALL INCLUDE, BUT NOT BE LIMITED TO ALL PROFIT, OVERHEAD, ON-SITE AND OFF-SITE CONDITIONS (KNOWN AND UNKNOWN) AND ADMINISTRATIVE COSTS. THE NOT TO EXCEED GUARANTEED MAXIMUM PRICE IS NOT SUBJECT TO INCREASE EXCEPT AS EXPRESSLY ALLOWED.

**Holidays** - Those designated non-workdays as established by the CITY Commission of the CITY of Fort Lauderdale.

**Notice to Proceed** - One or more written notice(s) to DESIGN/BUILD FIRM issued by the Project Manager authorizing the commencement of specified Work.

**Owners Representative** - The individual or entity who/which holds a current certificate as a registered engineer under Chapter 471 to practice engineering and who/which is employed by or retained by the CITY to provide professional services in compliance with the requirements of Section 287.055, Florida Statutes, and who/which shall review and provide recommendations regarding the Construction Documents prepared by the DESIGN/BUILD FIRM for the Project, and evaluate compliance of Project construction with the requirements of this Agreement.

**Plans and Specifications** - The official graphic representations of the Project as prepared, signed and sealed by Architect/Engineer and which, upon written approval of CITY, shall become a part of the Contract Documents.

**Project** - The design/construction project described in the Contract Documents.

**Project Manager/Contract Administrator** - The employee of the CITY, or other designated individual who is herein referred to as the Project Manager, will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement. The Project Manager, or designee, shall be the authorized agent for the CITY unless otherwise specified. The Term Project Manager and Contract Administrator are used interchangeably.

**Punch List** - The CITY's list of Work yet to be done or be corrected by the DESIGN/BUILD FIRM before the final completion date can be determined by the CITY.

**Shop Drawings** - Drawings, diagrams and schedules, and other data specially prepared by the DESIGN/BUILD FIRM or its subcontractors, sub-subcontractors, manufacturer, supplier or distributor to illustrate some portion of the Work.

**Substantial Completion** - The date, as certified by the Project Manager that all conditions of the permits and regulatory agencies have been met for the CITY's stated use of the Project, and all construction has been performed therein in accordance with the Contract Documents so CITY can beneficially enjoy, use or occupy and can operate it in all respects for its intended purpose.

**Surety** - The surety company or individual which is bound by the performance bond and payment bond with and for DESIGN/BUILD FIRM, who is primarily liable, and which surety company or individual is responsible for DESIGN/BUILD FIRM's acceptable performance of the Work under the Contract and for the payment of all debts pertaining thereto in accordance with Section 255.05, Florida Statutes.

**Work** - The totality of the obligations, including design, permitting, governmental entitlements, site plan approvals and construction and all other services required by the Contract Documents, whether completed or partially completed, including all labor, materials, equipment and services provided to or to be provided by DESIGN/BUILD FIRM to fulfill its obligations.

## ARTICLE 2 - GENERAL PROVISIONS

- 2.1 DESIGN/BUILD FIRM hereby agrees to furnish all of the labor, materials, equipment, Work, services and incidentals necessary to complete the Project, in accordance with the Contract Documents, within the Contract Time and for the Not to Exceed Guaranteed Maximum Price.
- 2.2 Relationship of CITY and DESIGN/BUILD FIRM: The DESIGN/BUILD FIRM accepts the relationship of trust and confidence established between it and the CITY by this Agreement. The DESIGN/BUILD FIRM warrants and represents to CITY that it will furnish its best skill and judgment in performing the Work, and shall always act to further the interest of the CITY in the expeditious completion of the Project at the lowest cost to the CITY, and in strict accordance with the Contract Documents and prudent and customary construction practices.
- 2.3 By signing this Agreement, the DESIGN/BUILD FIRM accepts a fiduciary duty with the CITY and warrants and represents to the CITY that the DESIGN/BUILD FIRM: (a) has all licenses and certifications required by applicable laws; (b) is experienced in all aspects of pre-construction and construction planning for projects similar to the Project; (c) will act in the CITY's highest and best interests in performing the Work; and (d) that no employees or affiliates of the DESIGN/BUILD FIRM, including all Consultants, any sub-consultants, subcontractors, and suppliers, at any tier, have been convicted of a public entity crime, fraud, theft, and/or a property damage crime within the preceding thirty-six (36) months from the time this Agreement is executed, as required pursuant to Section 287.133, Florida Statutes.
- 2.4 Intention of Contract Documents: It is the intent of the Contract Documents to describe a functionally complete Project to be designed and constructed in accordance with the Contract Documents. Any Work, design, construction, other professional services, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied by the DESIGN/BUILD FIRM, whether or not



specifically called for by the Contract Documents. When words, which have a well-known technical or trade meaning are used to describe Work, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals, or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference is specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of permit issuance. CITY shall have no duties other than those duties and obligations expressly set forth within the Contract Documents.

- 2.5 DESIGN/BUILD FIRM shall plan, record, and update, at least monthly, the design and construction schedule of the Project. The Project Schedule shall indicate the dates for the commencement and completion of the various stages of design and construction and shall be revised at least monthly and as required by the conditions of the Work. The Project Schedule shall encompass all of the work of all professions and trades necessary for the construction of the Project and shall be sufficiently complete and comprehensive to enable progress to be monitored on a weekly basis. DESIGN/BUILD FIRM shall be responsible to have available to it all materials, supplies, and appropriate personnel, trades, etc., necessary to complete the Work in accordance with the Project Schedule.

### **ARTICLE 3 - PROJECT MANAGER**

- 3.1 The Project Manager is hereby designated by the CITY as Jorge Olguin, Project Manager, whose address is 100 North Andrews Avenue, Fort Lauderdale 33301. The Project Manager will assume all duties and responsibilities and will have the rights and authority assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement.

### **ARTICLE 4 - CONTRACT DOCUMENTS**

- 4.1 The Contract Documents shall be followed as to Work, materials and dimensions except with the Project Manager may authorize, in his/her sole discretion, and in writing, an exception.
- 4.2 Dimensions given in figures are to hold preference over scaled measurements from the drawings; however, all discrepancies shall be decided upon by the Consultant, with concurrent written notice to Contract Administrator/ Project Manager. DESIGN/BUILD FIRM shall not proceed when in doubt as to any dimension or measurement but shall seek clarification from the Consultant, with concurrent written notice to Project Manager.
- 4.3 DESIGN/BUILD FIRM shall maintain two (2) copies of the Contract Documents, one of which shall be preserved and always kept accessible at the site for the Project Manager, and/or authorized representatives.
- 4.4 The Contract Documents shall have the following order of precedence, beginning with the most important:
- A. This Agreement (Contract) and all exhibits, addendums, and amendments thereto;
  - B. Change Orders (to the extent permitted under this Agreement);

- C. The Specifications, as approved and permitted;
- D. The Plans, as approved and permitted;
- E. All other information provided in the DCP;
- F. CPM Project Schedule and Schedule of Values; and
- G. DESIGN/BUILD FIRM's response to the CITY's request;

#### ARTICLE 5 - SCOPE OF WORK

DESIGN/BUILD FIRM agrees to complete the Project generally described as TITLE (RFP) NO. 12600-125, submitted by the DESIGN/BUILD FIRM, to provide design-build services for the TITLE (Project).

PLACE SCOPE HERE

The Project shall be construed in accordance with the requirements and provisions of said Contract Documents and for the Not to Exceed Guaranteed Maximum Price.

- 5.1 DESIGN/BUILD FIRM agrees to meet with the Project Manager or his/her respective designees at reasonable times and with reasonable notice.
- 5.2 Prior to the Final Completion of construction services under this Agreement, and as a condition precedent to final payment, there shall be established a record set of plans on reproducible vellum and a record set of Specifications, both of which shall bear the written approvals of the DESIGN/BUILD FIRM and the CITY's Project Manager. Such approval shall be indicated by the written signature of both Parties. In addition, there shall be established electronic copies on USB drives of the record set plans, non-compressed, formatted in the latest version of AutoCAD and of the record set of Specifications.
- 5.3 DESIGN/BUILD FIRM herein represents that Construction Manager, at a minimum, will provide the following services:
  - 5.3.1 At least five (5) days prior to the commencement of the construction phase of the Project, the DESIGN/BUILD FIRM will identify and provide the qualifications of a suitably qualified and experienced Construction Manager, approved by the CITY, who will be on site full time at the Project. No more than twenty percent (20%) of the proposed team can be changed and such change will require CITY approval.
  - 5.3.2 DESIGN/BUILD FIRM will use reasonable efforts to have the same Construction Manager on the Project, full time, to its conclusion, and any new representative will first be approved in writing by Project Manager before permanent assignment. Approval shall not be unreasonably withheld.
  - 5.3.3 The Construction Manager will conduct weekly meetings with the DESIGN/BUILD FIRM and its subcontractors at regular times, as previously agreed upon and approved by the Project Manager and shall issue weekly reports on the progress of the Work and the minutes of the previous meeting.
  - 5.3.4 The Construction Manager will administer the DESIGN/BUILD FIRM's Work.

- 5.3.5 The Construction Manager shall coordinate the processing of shop drawings and material submittals.
- 5.3.6 The Construction Manager will achieve satisfactory performance by DESIGN/BUILD FIRM and, if required, will require corrections to DESIGN/BUILD Firm's Work including, but not limited to, maintaining punch lists and observing testing.
- 5.3.7 The Construction Manager will monitor the cost of the Project, including payment applications and the preparation thereof.
- 5.3.8 The Construction Manager will assist in the preparation of record drawings and shall transmit to the Consultant requests for additional information concerning the design. In addition, the Project Manager shall be copied on these requests for monitoring purposes.
- 5.3.9 The Construction Manager will observe testing, start-up activities, and commissioning of project scope as described in the DCP.
- 5.4.10 The Construction Manager will secure all equipment brochures and warranties from the DESIGN/BUILD FIRM.
- 5.4.11 The Construction Manager will coordinate the correction and completion of the Work including that required by the punch list.
- 5.4 DESIGN/BUILD FIRM herein represents that Consultant, at a minimum, will provide the following services:
- 5.4.1 Consultant shall perform all of the architectural and engineering services necessary to describe, detail and design the Project in accordance with the Contract Documents.
- 5.4.2 Consultant shall design the Project so as to comply with Applicable Laws.
- 5.4.3 Consultant shall prepare the Plans and Specifications, as well as obtain all required and necessary reviews and approvals (or take other appropriate action upon) for same, and/or other submittals including, but not limited to, shop drawings, product data, and samples.
- 5.4.4 Consultant shall also submit the Plans and Specifications to the Owners Representative, with a copy to Project Manager, for his/her review and written approval. Owners Representative shall expeditiously review and approve the Plans and Specifications in accordance with the accepted Project Schedule. Owners Representative's approval of the Plans and Specifications shall not constitute acceptance of any design work which does not comply with Applicable Laws, information provided in the DCP, and/or with the terms of this Agreement. Except as provided herein, and to the extent limited by, the preceding sentence, the approval of the Plans and Specifications by the Owners Representative shall constitute a representation by the Owners Representative that the Project, if constructed as required by the Contract Documents, will be sufficient for its purposes. The Plans and Specifications shall include technical drawings, schedules, diagrams, and specifications setting forth in detail the requirements for construction of the Project; provide information necessary for the use of

- DESIGN/BUILD FIRM subcontractors and those in the building trade; and include documents necessary for regulatory agencies and other governmental approvals.
- 5.4.5 Consultant shall prepare construction change directives, if necessary, at no additional cost to the CITY, and authorize minor changes in the Work, as provided in the Contract Documents.
- 5.4.6 Consultant shall receive and review for compliance with the Contract Documents, all written warranties and related documents required hereby to be assembled upon substantial completion and issue applications for payment performed in compliance with the requirements of the Contract Documents.
- 5.5 The approved and permitted Plans and Specifications shall constitute a representation by Consultant to CITY that the Project, if construed as required by the Contract Documents, will be sufficient for its purposes. The Plans and Specifications include technical drawings, schedules, diagrams, and specifications setting forth in detail the requirements for construction of the Project; provide information necessary for the use of DESIGN/BUILD FIRM, sub-contractors, and those in the building trade; and include documents necessary for regulatory agencies and other governmental approvals.
- 5.6 Project Manager will provide the following services:
- 5.6.1 The Project Manager shall review applications for payment and coordinate the processing thereof with the CITY.
- 5.6.2 The Project Manager shall monitor the schedule(s).
- 5.6.3 The Project Manager shall track, log and review all required Project related documents and subsequently address any and all concerns with DESIGN/BUILD FIRM.
- 5.6.4 The Project Manager shall review and observe the Work and testing thereof for conformance and compliance with the requirements of the Contract Documents.
- 5.6.5 The Project Manager shall attend all required meetings and maintain and distribute meeting minutes.
- 5.6.6 At all times, the Project Manager will act as liaison between the Parties to this Agreement and the CITY's Project Manager.

#### **ARTICLE 6 - CONTRACT TIME AND COMPLETION DATE**

- 6.1 Time is of the essence for the DESIGN/BUILD FIRM's performance of the Work pursuant to this Agreement. The DESIGN/BUILD FIRM agrees to complete the Work in accordance with the approved and accepted Project Schedule and to achieve substantial completion of the Work, in accordance with this Agreement, and within the Contract Time. The DESIGN/BUILD FIRM acknowledges that failure to achieve substantial completion will result in substantial damages to the CITY, such as loss of beneficial use and/or occupancy of the Project.

- 6.2 DESIGN/BUILD FIRM shall be instructed to execute the Agreement immediately. DESIGN/BUILD FIRM shall immediately commence scheduling activities, permit applications and other preconstruction Work after the Notice to Proceed.
- 6.3 The DESIGN/BUILD FIRM shall complete the Construction Documents Phase.
- 6.4 The DESIGN/BUILD FIRM shall meet the following construction duration:

MILESTONE	CALENDAR DAYS FROM NOTICE TO PROCEED (COMPLETION DATE)
Assumed Notice to Proceed Date	0
Substantial Completion of PROJECT	_____
Final Completion of PROJECT	_____

**ARTICLE 7 - LIQUIDATED DAMAGES**

- 7.1 Failure of the DESIGN/BUILD FIRM to substantially complete the Project in accordance with Section 6.4 above, or meet any of the milestones as indicated in Section 6.4 above, DESIGN/BUILD FIRM shall pay to the CITY the sum of Two Thousand Dollars (**\$2,000.00**) for each calendar day that the completion of the Work is delayed beyond the time after the time specified in Article 6 Section 6.4 above (plus any approved time extensions at the sole discretion of the CITY) that DESIGN/BUILD FIRM fails to meet time specified in Section 6.4 above.
- 7.2 The time frame for liquidated damages shall not commence and thus shall not be tolled until the Project Manager submits the punch list to the DESIGN/BUILD FIRM.
- 7.3 DESIGN/BUILD FIRM and CITY HEREBY MUTUALLY AGREE AND ACKNOWLEDGE THAT THE LIQUIDATED DAMAGES AMOUNT SET FORTH HEREIN are not penalties but are liquidated damages to CITY for its inability to obtain full beneficial occupancy and/or use of the Project. 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 DESIGN/BUILD FIRM to complete the Contract on time. Liquidated damages shall apply separately to each portion of the Work for which a time of completion is given.
- 7.4 The CITY shall have the right to deduct from or retain any compensation which may be due or which may become due and payable to the DESIGN/BUILD FIRM the amount of liquidated damages, and if the amount retained by the CITY is insufficient to pay in full such liquidated damages, the DESIGN/BUILD FIRM shall pay all liquidated damages in full. The DESIGN/BUILD FIRM shall be responsible for reimbursing the CITY, in addition to liquidated damages or other damages for delay, for all costs of engineering fees and inspection and other costs incurred in administering the construction of the Project beyond the completion date specified or beyond an approved extension of time granted to the DESIGN/BUILD FIRM whichever is later.
- 7.5 CITY is authorized to deduct liquidated damages from monies withheld due to

DESIGN/BUILD FIRM for the Work under this Agreement or as much thereof as CITY may, in its sole discretion, deem just and reasonable.

**ARTICLE 8 - CHANGE OF THE CONTRACT TIME**

- 8.1 The Contract Time may only be changed by a Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to the Project Manager within five (5) days of the occurrence of the event giving rise to the claim. Any change in the Contract Time resulting from any such claim shall be incorporated in a Change Order.
- 8.2 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of the DESIGN/BUILD FIRM if a claim is made there for as provided in paragraph 8.1. Such delays shall include but not be limited to, acts or neglect by the CITY, or to fires, floods, labor disputes, abnormal weather conditions, or acts of God.
- 8.3 All time limits stated in the Contract Documents are of the essence. The provisions of this Article shall not exclude recovery for damages for delay by the DESIGN/BUILD FIRM.
- 8.4 Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with DESIGN/BUILD FIRM shall not give rise to a claim by the DESIGN/BUILD FIRM for damages for increases in material and/or labor costs.

**ARTICLE 9 - CONTRACT PRICE (NOT TO EXCEED PRICE) AND METHOD OF PAYMENT**

9.1 The Contract Price is the Not To Exceed Guaranteed Maximum Price agreed to by the DESIGN/BUILD FIRM and the CITY under this Agreement, payable to complete the Work in accordance with the Agreement and DCP, and, to the extent permitted by this Agreement, as may be increased or decreased by Change Order.

9.2 The Contract Price for the Project, which is also the Not to Exceed Guaranteed Maximum Price is \$ \_\_\_\_\_. This includes bonds, allowances and material change. The CITY will reimburse actual cost of permit(s) upon submission of paid permit receipts.

\_\_\_\_\_ (\$ \_\_\_\_\_)

9.3 In the event that the DESIGN/BUILD FIRM’s total approved expenditures for the Project exceed the Not To Exceed Price Guaranteed Maximum Price, the DESIGN/BUILD FIRM shall pay such excess from its own funds. CITY shall not be required to pay any amount that exceeds the Not To Exceed Guaranteed Maximum Price and the DESIGN/BUILD FIRM shall have no claim against the CITY on account thereof.

**9.4 METHOD OF BILLING AND PAYMENT**

9.4.1 During the Construction Documents Phase, DESIGN/BUILD FIRM may submit a request for payment monthly based upon percentage of completion of the (final

construction) Plans and Specifications. During the Construction Phase, DESIGN/BUILD FIRM may submit a request for payment thirty (30) calendar days after beginning field operations, subject to the Notice to Proceed, and every thirty (30) calendar days thereafter. Payment during the Construction Phase will be based upon percentage of work completed for each item in the approved Schedule of Values. DESIGN/BUILD FIRM's requisition for payment shall show a complete breakdown of the Project components, and the amount due, together with such supporting evidence, as may be required by the Project Manager.

At a minimum, the requisition for payment shall be accompanied by a completed certification of Work; consent of surety in the applicable amount; list of subcontractors that performed Work during the payment application period being submitted; releases of liens from the DESIGN/BUILD FIRM for the previous period being billed; releases of liens from subcontractors that have performed Work during the previous billing period unless payment for the previous period has not been received by the DESIGN/BUILD FIRM; aerials and photographs of the areas of Work for the applicable billing period; an accepted, updated Project Schedule (as approved); and back up for all items being billed. The certification of Work will mean compliance by DESIGN/BUILD FIRM with the approved Project Schedule; that as-built drawings of improvements are current for the prior period; and Applicable Laws are being met and complied with. Each requisition for payment shall be submitted to the Project Manager for approval. Payment for Work performed will be made in accordance with the Florida Prompt Payment Act, Sections 255.0705 - 255.078, Florida Statutes, but not more frequently than once a month. The Contract Administrator shall verify completion of the various phases, as noted, and authorize payment accordingly. Should the Project fall behind schedule, as indicated in the Project Schedule, DESIGN/BUILD FIRM shall include a written plan demonstrating how the Final Completion date shall be maintained.

Material purchases can be invoiced to the CITY, upon receipt of invoice and documentation of order placement must be accompanied by a bill of sale from the manufacturer or supplier. The CITY will endeavor to pay material invoices earlier, albeit not later than thirty (30) days of receipt of a valid invoice. Any invoices that are not considered valid will be returned immediately for correction or additional documentation. No more than eight percent (8%) contractor's mark-up will be allowed for materials.

9.4.2 CITY agrees that it will pay DESIGN/BUILD FIRM in accordance with the Florida Prompt Payment Act, within thirty (30) calendar days of receipt of DESIGN/BUILD FIRM's proper requisition for payment, as provided above.

9.4.2.1 CITY will review DESIGN/BUILD FIRM's invoices and, if inaccuracies or errors are discovered in said invoice, CITY will inform DESIGN/BUILD FIRM within ten (10) working days by fax and/or by email of such inaccuracies or errors and request that revised copies of all such documents be re-submitted by DESIGN/BUILD FIRM to CITY.

9.4.2.2 Payments are scheduled to be made by CITY to DESIGN/BUILD FIRM using a credit card /CITY Procurement Card (P-Card).

9.4.2.3 Payment may be made to CONTRACTOR at:

\_\_\_\_\_.

\_\_\_\_\_.

\_\_\_\_\_.

\_\_\_\_\_.

- 9.4.3 The DESIGN/BUILD FIRM shall use the sums advanced to it solely for the performance of the Work and the construction, furnishing and equipping of the Work in accordance with the Contract Documents and payment of bills incurred by the DESIGN/BUILD FIRM in performance of the Work.
- 9.4.4 DESIGN/BUILD FIRM shall remain liable for subcontractors' work and for any unpaid laborers, material suppliers of subcontractors in the event it is after discovered that said work is deficient or that any subcontractors, laborers, or material suppliers did not receive payments due to them on the Project.
- 9.4.5 Undisputed amounts remaining unpaid thirty (30) calendar days after CITY's request of DESIGN/BUILD FIRM's proper requisition for payment for conforming Work shall bear interest at the rate set forth in Section 218.74(4), Florida Statutes. This Section shall not apply if the CITY has a right to withhold any portion of the payment under this Agreement.
- 9.4.6 Pursuant to Florida Statutes, Section 255.078, five percent (5%) of all monies earned by DESIGN/BUILD FIRM shall be retained by the CITY until the Project has obtained Final Completion and been accepted by the CITY. The CITY may incrementally reduce the rate of retainage pursuant to a schedule provided for in the agreement, or from releasing at any point or a portion of any retainage withheld by the CITY which is attributable to the labor, services, or materials supplied by the Consultant or by one or more subconsultant or suppliers, if applicable and determined to be in the City's best interest. If the City makes any payment of retainage to Consultant which is attributable to the labor, services, or materials supplied by one or more subconsultant or suppliers, the Consultant must timely remit payment of such retainage to those subconsultants and suppliers.
- 9.5 If, after the Project has been substantially completed, full completion thereof is delayed through no fault of DESIGN/BUILD FIRM, or by issuance of Change Orders affecting final completion, and the Project Manager so certifies. CITY shall, upon certification of the Project Manager, and without terminating the Agreement, make payment of the balance due for that portion of the Project fully completed and accepted. Such payment shall be made as required by law under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.
- 9.6 Upon receipt of written notice from DESIGN/BUILD FIRM that the Project is ready for final inspection and acceptance, the Project Manager shall, within seven (7) calendar days, make an inspection thereof. If the Project Manager finds the Project acceptable under the Contract Documents and the Project fully performed, a Final Certificate of Payment shall be issued by the Contract Administrator over his/her own signature, stating that the Work required by this Agreement has been completed and is accepted under the terms and



conditions thereof.

- 9.7 Before issuance of the Final Certificate for Payment, DESIGN/BUILD FIRM shall deliver to the Project Manager a complete release of all liens arising out of this Agreement, or receipts in full in lieu thereof, and an affidavit certifying that all suppliers, consultant, subcontractors, and subconsultants have been paid in full, and that all other indebtedness connected with the Project has been paid, and a consent of the surety to final payment. All as-builts, warranties, guarantees, operational manuals, and instructions in operation must be delivered to CITY at this time. The warranties provided after the initial warranty period of year one will be covered under the warranty bond attached as an Exhibit to this Agreement. DESIGN/BUILD FIRM shall submit a completed as-built drawings package signed and sealed by a land surveyor registered in the State of Florida and as approved by the CITY's Public Works Department, and proof that all permits have been closed, which shall be delivered prior to requesting final payment.
- 9.8 CITY may withhold final payment or any progress payment to such extent as may be necessary on account of:
- A. Defective Work not remedied;
  - B. Claims filed or written notices of nonpayment indicating probable filing of claims as may be prescribed by law by other parties against DESIGN/BUILD FIRM;
  - C. Failure of DESIGN/BUILD FIRM to make payments properly to Consultant, subcontractors or subconsultants, or for material or labor;
  - D. Damage to another subcontractor, subconsultant, supplier, material, person (as provided for in Florida Statute Chapter 713), party or person not remedied which are attributable to DESIGN/BUILD FIRM, its agents, servants, employees, contractor, consultant, subconsultants, subcontractors, sub-subcontractors, sub-subconsultants, material person and suppliers;
  - E. Liquidated damages pursuant to Article 7 herein;
  - F. As-built drawings not being in a current and acceptable state.
- 9.9 When the above grounds in 9.4.7 are removed or resolved, or DESIGN/BUILD FIRM provides a surety bond or a consent of surety satisfactory to CITY which will protect CITY in the amount withheld, payment may be made in whole or in part, as applicable.
- 9.10 If the Project Manager, in his/her reasonable judgment, determines that the portion of the Not To Exceed Price then remaining unpaid will not be sufficient to complete the Work in accordance with the Contract Documents, no additional payments will be due to the DESIGN/BUILD FIRM hereunder unless and until the DESIGN/BUILD FIRM, at its sole cost, performs a sufficient portion of the Work so that such portion of the Not To Exceed Price then remaining unpaid is determined by the Project Manager to be sufficient to so complete the Work.
- 9.11 The making and acceptance of the final payment shall constitute a waiver of all claims by CITY, other than those arising from faulty or defective Work, failure of the Project to comply with requirements of the Contract Documents, or terms of any warranties required by the Contract Documents. It shall also constitute a waiver of all claims by DESIGN/BUILD FIRM, except

those previously made in writing and identified by DESIGN/BUILD FIRM as unsettled at the time of the final application for payment.

- 9.12 The DESIGN/BUILD FIRM warrants to the CITY that all materials and equipment furnished under this Agreement will be new unless otherwise specified, and that all Work will be of good quality and in conformance with the Contract Documents. Any warranties that are extended to the CITY beyond the standard warranty are to be in writing with the servicing firm information attached as an Exhibit. All Work not conforming to these requirements, including substitutions not properly approved and authorized by Contract Administrator, may be considered defective. If required by the CITY, the DESIGN/BUILD FIRM shall furnish satisfactory evidence as to the origin, nature and quality of materials and equipment used for the Project. DESIGN/BUILD FIRM shall properly store and protect all construction materials. Materials which become defective through improper storage shall be replaced with new materials at no additional costs. The DESIGN/BUILD FIRM's warranty excludes damage or defect caused by abuse, modifications not executed by the DESIGN/BUILD FIRM, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.

#### **ARTICLE 10 - ADDITIONAL SERVICES AND CHANGES IN SCOPE OF WORK**

- 10.1 Without invalidating the Agreement and without notice to any surety, CITY reserves and shall have the right to make such changes from time to time in the character and quantity of the Work as may be considered necessary or desirable to complete fully and acceptably the Project in a satisfactory manner. The CITY may order additions, deletions or revisions in the Work using agreed upon rates to be included in the Contract Documents and/or Schedule of Values. Upon receipt of a Change Order, the DESIGN/BUILD FIRM shall proceed with the Work involved. All Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made on the basis of a claim made by either party.
- 10.2 The Project Manager may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. Such changes must be in writing and signed by the CITY and DESIGN/BUILD FIRM.

#### **ARTICLE 11 - DESIGN/BUILD FIRM'S RESPONSIBILITIES**

- 11.1 The Parties acknowledge and agree that the DESIGN/BUILD FIRM will be responsible for the design, construction and construction management of the Project according to the DCP.
- 11.2 The DESIGN/BUILD FIRM will be responsible for security, with full cooperation of the CITY all permits for the Project, including without limitation, South Florida Water Management District, Broward County, Army Corps of Engineers and Florida Department of Environmental Protection. Except as provided in the preceding sentences, the DESIGN/BUILD FIRM shall be fully responsible for any and all other permits and approvals from all governmental authorities having jurisdiction over the Project. All permits and licenses require by federal, state or local laws, rules, and regulations necessary for the prosecution of the Project by DESIGN/BUILD FIRM pursuant to this Agreement shall be secured by the DESIGN/BUILD FIRM and paid for by the CITY. It is the DESIGN/BUILD FIRM's responsibility to have and maintain appropriate certificate(s) of competency, valid for the Work to be performed, and for all persons working on the Project for whom a certificate of competency is required.

- 11.3 DESIGN/BUILD FIRM shall be fully responsible for the actions of all its agents, servants, employees, including, but not limited to, the contractor, consultant, subcontractors, sub-consultants, sub-subcontractors, materials persons (pursuant to Chapter 713, Florida Statutes), and any and all other persons working for it in conjunction with the design and construction of the Project.
- 11.4 DESIGN/BUILD FIRM shall be fully responsible for all acts or omissions of its contractor, consultant, subcontractors, sub-consultants, sub-subcontractors, sub-sub-consultants, materials persons, and any and all other persons working for DESIGN/BUILD FIRM in conjunction with the design and construction of the Project; any and all persons working for contractor, consultant, subcontractors or sub-consultant; and any and all persons for whose acts any of the aforesaid may be liable, to the same extent DESIGN/BUILD FIRM is responsible for the acts and omissions of persons directly employed by DESIGN/BUILD FIRM. Nothing in this Agreement shall create any contractual relationship between CITY and consultant, or CITY and any subcontractor, sub-consultant, sub-subcontractor, sub-sub-consultant, or any other person working either for DESIGN/BUILD FIRM or for any of the afore-stated parties in conjunction with the design and construction of the Project, including, without limitation, any obligation on the part of the CITY to pay or to see the payment of any monies due to any of the afore-stated parties pursuant to this Section.
- 11.5 DESIGN/BUILD FIRM agrees to bind its consultant, subcontractors, and sub-consultants to the applicable terms and conditions of this Agreement for the benefit of the CITY.
- 11.6 Unless otherwise provided herein, DESIGN/BUILD FIRM shall provide and pay for all architecture, engineering, landscape architecture, land surveying services, materials, construction and other labor, water, tools, equipment, light, power, transportation, and other facilities and services necessary for the proper execution and completion of the design and construction of the Project, whether temporary or permanent, and whether or not incorporated or to be incorporated in the Project.
- 11.7 DESIGN/BUILD FIRM shall at all times enforce strict discipline and good order among its employees, consultants, subcontractors and sub-consultants at the Project site, and shall not employ on the Project any unfit person or anyone not skilled in the work and/or services assigned to him or her.
- 11.8 DESIGN/BUILD FIRM shall keep itself fully informed of, and shall take into account and comply with any and all Applicable Laws affecting those engaged or employed in the Project; or the materials used or employed in the design and construction of the Project; or in any way affecting the conduct of the Project, including, without limitation, all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same and of all provisions required by law to be made a part of this Agreement, all of which provisions are hereby incorporated by reference and made a part hereof. If any specification or contract for this Project is in violation of any such Applicable Laws, DESIGN/BUILD FIRM shall forthwith report the same to the Project Manager in writing. DESIGN/BUILD FIRM shall cause all its employees, agents, consultant, subcontractors, subconsultants, sub-subconsultants and sub-subcontractors to observe and comply with all Applicable Laws.
- 11.9 DESIGN/BUILD FIRM shall pay all applicable sales, consumer, use and other taxes required by law. DESIGN/BUILD FIRM is responsible for reviewing the pertinent state statutes involving state taxes and complying with all requirements.
- 11.10 If DESIGN/BUILD FIRM has knowledge that the Contract Documents do not comply with

Applicable Laws, in any respect, the DESIGN/BUILD FIRM shall promptly notify the Project Manager, in writing, and any necessary changes shall be adjusted by appropriate revisions. If the DESIGN/BUILD FIRM performs any Work not in accordance with Applicable Laws, and without such notice to the Project Manager, the DESIGN/BUILD FIRM shall assume full responsibility therefore and shall bear all costs attributable thereto. DESIGN/BUILD FIRM warrants to CITY that it has thoroughly reviewed and studied the DCP, and has determined that it is in conformance with Applicable Laws, and is complete and sufficiently coordinated to perform the Work for the Not To Exceed Price and the Contract Time. DESIGN/BUILD FIRM warrants to CITY that the DCP is consistent, practical, feasible and constructible. DESIGN/BUILD FIRM further warrants to CITY that the Work described in the DCP is constructible for the Not To Exceed Price and the Contract Time.

**THE CITY DISCLAIMS ANY WARRANTY THAT THE DCP FOR THE PROJECT IS ACCURATE, PRACTICAL, CONSISTENT, AND/OR CONSTRUCTIBLE.**

- 11.11 DESIGN/BUILD FIRM accepts the Project site in its observable and/or documented condition existing at the time of this Agreement, or conditions ordinarily encountered and generally recognized as inherent to the character of the Work to be provided for in this Project. By signing this Agreement, the DESIGN/BUILD FIRM represents to the CITY that it has: (a) visited the Project site to become familiar with the conditions under which the Work is to be performed; (b) become familiar with all information provided (without warranty) by the CITY pertaining to the Project site; and (c) correlated its observations with the information furnished by the CITY (without warranty), and the Contract Documents. The DESIGN/BUILD FIRM hereby waives additional time or compensation for additional work made necessary by observable and/or documented conditions existing at the Project site, or conditions ordinarily encountered and generally recognized as inherent to the character of the Work to be provided for in this Project.
- 11.12 The DESIGN/BUILD FIRM agrees specifically that no Change Orders shall be required by the DESIGN/BUILD FIRM or considered by the CITY for reasons involving conflicts in the Contract Documents; questions of clarity with regard to the Contract Documents; and incompatibility or conflicts between the Contract Documents and the existing Projectsite conditions excluding, without limitation, utilities and unforeseen underground conditions at the discretion of the CITY and will not be unreasonably withheld. The DESIGN/BUILD FIRM acknowledges that it has ascertained all correct locations for points of connection for all utilities required for this Project.
- 11.13 The DESIGN/BUILD FIRM shall comply with all conditions of any permits issued by government authorities.
- 11.14 All material and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. Suppliers shall be selected and paid by the DESIGN/BUILD FIRM; the CITY reserves the right to approve all suppliers and materials.
- 11.15 The DESIGN/BUILD FIRM shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work, or any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. The DESIGN/BUILD FIRM hereby expressly binds itself to indemnify and save harmless the CITY from all such claims and fees and from any and all suits and actions of every name and description that may be brought against CITY on account of any such

claims, fees, royalties, or costs for any such invention or patent, and from any and all suits or actions that may be brought against said CITY for the infringement of any and all patents or patent rights claimed by any person, firm, corporation or other entity.

- 11.16 Except in connection with the safety or protection of persons, or the Work, or property at the site or adjacent thereto, and except as otherwise indicated in the Supplementary Conditions, all work at the site shall be performed during regular working hours between 7:00 am to 7:00 pm, Monday through Friday. The DESIGN/BUILD FIRM will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday (designated by the CITY of Fort Lauderdale) without the Project Manager's written consent at least seventy-two (72) hours in advance of starting such work. If the Project Manager permits overtime work, the DESIGN/BUILD FIRM shall pay for the additional charges to the CITY with respect to such overtime work. Such additional charges shall be a subsidiary obligation of the DESIGN/BUILD FIRM and no extra payment shall be made to the DESIGN/BUILD FIRM for overtime work. The cost to the DESIGN/BUILD FIRM to reimburse the CITY for overtime inspections is established at direct-labor and overtime costs for each person or inspector required. Incidental overtime costs for engineering, testing and other related services will also be charged to the DESIGN-BUILD FIRM at the actual rate accrued.

CITY Inspector Hours: 8:00 am to 4:30 pm

Overtime: 5:01 pm to 7:59 am

Inspection Overtime Cost: \$100/hr.

- 11.17 DESIGN/BUILD FIRM requests to work during other than regular hours that conform to the standard hours listed in the CITY's Noise Ordinance Section 17-8 (1), must be submitted to the DCP and CITY Project Manager with six (6) business days in advance of scheduled work. Request shall include the following information:

- Cover page with DESIGN/BUILD FIRM name, project name, and location
- Description of work to be performed outside of normal work hours
- Site plan and location map
- Legal description
- Justification for work and why extended work hours are being requested
- Commencement date and duration of work
- List of DESIGN/BUILD FIRM contacts, including those on site
- Details on type of equipment to be used during extended work hours
- Details on noise levels that may be produced by range of decibels, including current ambient levels at site and levels predicted from proposed construction impacts
- Details on vibratory control measures to be implemented
- Details on how neighbors in vicinity of work area will be notified
- Details on how complaints will be resolved and/or mitigated
- Maintenance of Traffic plans approved by CITY's Transportation and Mobility Department

(TAM) and any other agencies (if applicable).

11.17.1 If no lane closure or traffic impacts are necessary, the DESIGN/BUILD FIRM request must be submitted seven (7) business days in advance of scheduled work. If the Work requires lane closures, request should be submitted at least ten (10) business days in advance, along with MOT plans approved by CITY's TAM, and any other agencies if necessary, to allow time for CITY Manager consideration and approval, CITY MOT permit issuance, and notification to the public.

11.17.2 The DESIGN/BUILD FIRM will not be permitted overtime work or the performance of work on Saturday, Sunday or any legal holiday (designated by the CITY of Fort Lauderdale) without the CITY Manager's written consent at least seventy-two (72) hours in advance of the period proposed for such overtime work. Hours of work shall conform to the requirements of the CITY's Noise Ordinance.

11.17.3 If the DESIGN-BUILD FIRM requests to work outside regular hours that require a special exemption from the provisions of Section 17-7.4, it shall follow the CITY's Department of Sustainable Development's process for "Requesting Exemption from the Noise Ordinance," located at:

<https://www.fortlauderdale.gov/departments/sustainable-development/building-services/building-permit-general-info>

11.17.4 The DESIGN/BUILD FIRM will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday (designated by the City of Fort Lauderdale) without the approval from the CITY Manager or CITY Commission approval at least seventy-two (72) hours in advance of starting such work.

11.18 In the event of an emergency affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, DESIGN/BUILD FIRM, without special instruction or authorization from the CITY is obligated to act to prevent threatened damage, injury or loss. DESIGN/BUILD FIRM shall give the Project Manager prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

11.19 Upon issuance of a hurricane watch by the National Weather Service, DESIGN/BUILD FIRM shall submit to the CITY a plan to secure the work area in the event a hurricane warning is issued. The plan shall detail how the DESIGN/BUILD FIRM will secure the premises, equipment and materials in a manner as to prevent damage to the Work and prevent materials and equipment from becoming a hazard to persons and property on and around the premises. The plan shall include a time schedule required to accomplish the hurricane preparations and a list of emergency contacts that will be available and in the CITY before, during and immediately after the storm.

Upon issuance of a hurricane warning by the National Weather Service, if the DESIGN/BUILD FIRM has not already done so, the DESIGN/BUILD FIRM shall implement its hurricane preparedness plan. Cost of development and implementation of the hurricane preparedness plan shall be considered as incidental to construction. Cost of any clean up and rework required after the storm will be considered normal construction risk within Florida and shall not entitle

the DESIGN/BUILD FIRM to any additional compensation. DESIGN/BUILD FIRM shall be entitled to request an extension of time for completion of the Work, in accordance with the provision of Article 8 of this Agreement, equal to the time it is shut down for implementation of the preparedness plan, the duration of the storm and a reasonable period to restore the Premises.

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

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

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

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

#### **ARTICLE 12 - CITY'S RESPONSIBILITIES**

- 12.1 CITY shall assist DESIGN/BUILD FIRM by placing at its disposal any available information pertinent to the Project including previous reports, laboratory tests and inspections of samples, materials and equipment, property, boundary, easement, rights-of-way, topographic and utility surveys; property descriptions; and known zoning, deed and other land use restrictions.
- 12.2 CITY shall arrange for access to and make all provisions for DESIGN/BUILD FIRM to enter upon public property as required for DESIGN/BUILD FIRM to perform its services.
- 12.3 CITY shall render decisions under this Agreement in a timely manner.

#### **ARTICLE 13 - SUPERINTENDENCE AND SUPERVISION**

- 13.1 The orders of the CITY are to be given through the Project Manager, whose instructions are to be strictly and promptly followed in every case, provided that they are in accordance with this Agreement and the other Contract Documents. Construction Manager shall keep on the Project during its progress, a full-time, competent, English speaking supervisor, who shall be the Construction Manager Representative and who shall serve as the superintendent, and

- any necessary assistants, all satisfactory to the Project Manager.
- 13.2 Construction Manager or Construction Manager Representative shall prepare, on a daily basis, and keep on the Project site, a bound log setting forth at a minimum, for each day: the weather conditions and how any weather conditions affected progress of the Work; time of commencement of Work for the day; the Work performed; materials, labor, personnel, equipment and subcontractors used for the Work; any idle equipment and reasons for idleness; visitors to the Project site; any special or unusual conditions or occurrences encountered; any materials delivered to the Project site; and the time of termination of Work for the day. The daily bound log shall be available for inspection by the CITY, or its authorized designee, at all times during the Project, without previous notice.
- 13.3 If DESIGN/BUILD FIRM, in the course of the Project, finds any discrepancy between the Contract Documents and the physical conditions of the site, or any errors or omissions in the Contract Documents including, but not limited to, the Plans and Specifications, it shall be DESIGN/BUILD FIRM's sole obligation and duty to immediately inform the Project Manager, in writing, and the Project Manager will promptly verify same. Any Work done prior to or after such discovery will be done at DESIGN/BUILD FIRM's sole risk. **NOTWITHSTANDING THE PRECEDING, OR ANY OTHER TERM OR CONDITION OF THIS AGREEMENT, DESIGN/BUILD FIRM HEREBY ACKNOWLEDGES AND AGREES THAT THIS IS A DESIGN/BUILD PROJECT AND, ACCORDINGLY, ANY ERRORS OR OMISSIONS SHALL BE CORRECTED AT THE SOLE COST AND EXPENSE OF DESIGN/BUILD FIRM AND WITHOUT A CLAIM FOR ADJUSTMENT IN THE CONTRACT TIME OR CONTRACT PRICE.**
- 13.4 DESIGN/BUILD FIRM shall coordinate, supervise and direct the Project competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform and complete the Project in accordance with the Contract Documents. DESIGN/BUILD FIRM shall be solely responsible for the design, preparation of Construction Documents, means, methods, techniques, safety, sequences and procedures of construction. DESIGN/BUILD FIRM shall give efficient supervision to the Work, using DESIGN/BUILD FIRM's best skill, attention and judgment.

#### ARTICLE 14 - RESOLUTION OF DISPUTES

- 14.1 Questions, claims, difficulties and disputes of whatever nature which may arise relative to the technical interpretation of the Contract Documents and fulfillment of this Agreement as to the character, quality, amount and value of any work done and materials furnished, or proposed to be done or furnished under or, by reason of, the Contract Documents which cannot be resolved by mutual agreement of CITY Project Manager and DESIGN/BUILD FIRM Project Manager shall be submitted to the City Manager or his designee and DESIGN/BUILD FIRM's representative for resolution. When either Party has determined that a disputed question, claim, difficulty or dispute is at an impasse, that Party shall notify the other party in writing and submit the question, claim, difficulty or dispute to the next level of the Parties' respective management levels for resolution. Each Party may determine in such Party's reasonable discretion as to who the "next level of management" is for purposes of resolving disputes.
- 14.2 All non-technical administrative disputes (such as billing and payment) shall be determined by the Project Manager.
- 14.3 During the pendency of any dispute and after a determination thereof, DESIGN/BUILD FIRM,



and CITY shall act in good faith to mitigate any potential damages including using construction schedule changes and alternate means of construction. During the pendency of any dispute arising under this Agreement, other than termination herein, DESIGN/BUILD FIRM shall proceed diligently with performance of this Agreement and CITY shall continue to make payments for undisputed amounts in accordance with the Contract Documents.

- 14.4 In the event a resolution of a dispute under this section cannot be resolved, the issue shall be submitted by the DESIGN/BUILD FIRM to the City Manager or designee, in writing within ten (10) days of the impasse. The notice must state the basis of the dispute and the DESIGN/BUILD FIRM's proposed resolution. The notice given by the DESIGN/BUILD FIRM must include a written notarized certification that any NTE adjustment claimed is the entire adjustment to which the DESIGN/BUILD FIRM has reason to believe it is entitled to as a result of the question, claim, difficulty or dispute. Resolution of such dispute shall be made by the City Manager or designee. The City Manager's decision shall be final and binding on the Parties subject to mediation and judicial review.
- 14.5 Prior to any litigation being commenced, for any disputes which remain unresolved, within sixty (60) days after Final Completion of the Work, the Parties shall participate in mediation to address all unresolved disputes to a mediator mutually agreed upon by the Parties. Should any objection not be resolved in mediation, the Parties retain all their legal rights and remedies provided under the laws of Florida. Failure by a Party to comply in strict accordance with the requirements of this Article, then said Party specifically waives all of its rights provided hereunder, including its rights and remedies under the laws of Florida.

#### **ARTICLE 15 - CITY'S RIGHT TO TERMINATE AGREEMENT**

- 15.1 If DESIGN/BUILD FIRM fails to begin the design and construction of the Project within the time specified, or fails to perform the Project with sufficient workers and equipment or with sufficient materials to insure the prompt completion of the Project, in accordance with the Contract Documents and schedules, or shall perform the Work unsuitably, or cause it to be rejected as defective and unsuitable; or shall discontinue the prosecution of the Project, except for excused delays in accordance with this Agreement; or if DESIGN/BUILD FIRM 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 shall not carry on the Project in accordance with the Contract Documents, then the CITY shall give notice, in writing, to DESIGN/BUILD FIRM and its surety of such delay, neglect or default, specifying the same. If DESIGN/BUILD FIRM within a period of ten (10) calendar days after such notice, shall not proceed in accordance therewith, then CITY may, upon written notice from the Project Manager of the fact of such delay, neglect or default and DESIGN/BUILD FIRM's failure to comply with such notice, terminate the services of DESIGN/BUILD FIRM, exclude DESIGN/BUILD FIRM from the Project site, and take the prosecution of the Project out of the hands of DESIGN/BUILD FIRM, as appropriate, or use any or all materials and equipment on the Project site as may be suitable and acceptable, in the CITY's reasonable discretion. In such case, DESIGN/BUILD FIRM shall not be entitled to receive any further payment until the Project is finished. 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 its opinion shall be required for the completion of the Project in an acceptable manner. All damages, costs and charges incurred by CITY shall be deducted from any monies due or which may become due to said DESIGN/BUILD FIRM. Actions will be instituted to recover on the posted bonds. In case the

damages and expense so incurred by CITY shall be less than the sum which would have been payable under this Agreement, if it had been completed by said DESIGN/BUILD FIRM, then DESIGN/BUILD FIRM shall be entitled to receive the difference. If such damages and costs exceed the unpaid balance, then DESIGN/BUILD FIRM shall be liable and shall pay to CITY the amount of said excess.

- 15.2 If, after Notice of Termination of DESIGN/BUILD FIRM's right to proceed, it is determined for any reason that DESIGN/BUILD FIRM was not in default, the rights and obligations of CITY and DESIGN/BUILD FIRM shall be the same as if the notice of termination had been issued pursuant to the Termination for Convenience clause, as set forth in Section 15.3 below.
- 15.3 Notwithstanding any other provision in this Agreement, the performance of work under this Agreement may be terminated in writing by CITY, for convenience and without cause, upon ten (10) business days from the date of DESIGN/BUILD FIRM's receipt of the written notice to DESIGN/BUILD FIRM of intent to terminate and the date on which such termination becomes effective. In such case, DESIGN/BUILD FIRM shall be paid for all Work and reimbursables executed, and expenses incurred, such as materials stored, cost of severance of leases/contracts directly associated with the Project, and demobilization prior to termination. PAYMENT SHALL INCLUDE REASONABLE PROFIT FOR SERVICES ACTUALLY PERFORMED IN FULL PRIOR TO TERMINATION DATE, BUT SHALL EXCLUDE ALL LOSS PROFITS, INDIRECT CONSEQUENTIAL, SPECIAL OR OTHER DAMAGES.
- 15.4 Upon receipt of Notice of Termination pursuant to Sections 15.1 and 15.2 above, DESIGN/BUILD FIRM shall, at its sole cost and expense (other than demobilization as a result of the Notice of Termination pursuant to Section 15.3 which shall be paid for by the CITY) and as a condition precedent to any further payment obligation by the CITY, promptly discontinue all affected work, unless the Notice of Termination directs otherwise, and deliver to CITY within seven (7) calendar days of termination, all data, drawings, specifications, reports, estimates, summaries and such other information as may have been required by the Contract Documents, whether completed or in process. Compensation shall be withheld until all documents are produced to CITY pursuant to this Article.

#### **ARTICLE 16 - DESIGN/BUILD FIRM'S RIGHT TO STOP WORK OR TERMINATE CONTRACT**

- 16.1 If the Project should be stopped under any order of any court or other public authority for a period of more than ninety (90) calendar days, through no act or fault of DESIGN/BUILD FIRM or of anyone employed by DESIGN/BUILD FIRM, or if the Project Manager should fail to review and approve or state in writing reasons for non-approval of any requisition for payment within twenty (20) business days after it is presented; or if CITY fails to pay DESIGN/BUILD FIRM within thirty (30) calendar days after submittal of a proper requisition for payment, as approved by the Project Manager, then DESIGN/BUILD FIRM may give written notice to CITY, of such delay, neglect or default, specifying same. If CITY, within a period of ten (10) business days after such written notice, shall not remedy the delay, neglect, or default upon which notice is based, then DESIGN/BUILD FIRM may stop work until payment is made, or terminate this Agreement and recover from CITY payment for all Work executed and reasonable expenses sustained, but excluding any claim for payments for loss profits, indirect, special, consequential or other damages.

**ARTICLE 17 - NOTICES**

17.1 Whenever either Party desires to give notice to the other, such notice must be in writing with proof of delivery or receipt. The notice shall be address to the Party for whom it is intended at the place last specified; and the place for giving of notice shall remain until itshall have been changed by written notice in compliance with the provisions of this paragraph. For the present, the Parties designate the following as the respective places for giving notice:

<p><b>FOR THE CITY:</b>                  CITY Manager                  CITY of Fort Lauderdale                  100 North Andrews Avenue                  Fort Lauderdale, Florida 33301</p> <p>with copies to:                  Project Manager and City Attorney                  City of Fort Lauderdale                  100 North Andrews Avenue                  Fort Lauderdale, Florida 33301</p>	<p><b>FOR THE DESIGN/BUILD FIRM:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
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**ARTICLE 18 – BONDS AND INSURANCE**

18.1 DESIGN/BUILD FIRM shall furnish, or cause to be furnished, on or before seven (7) days after execution of this Agreement, the following:

Performance Bond and Payment Bond (Surety)

18.2 THE DESIGN/BUILD FIRM shall execute and record in the Public Records of Broward County, Florida, a payment and performance bond in an amount at least equal to the Contract Price guaranteeing to CITY the completion and performance of the Project covered in this Agreement as well as full payment of all suppliers, material persons, laborers, or sub-contractors employment pursuant to the Project. The Payment and Performance Bond shall be with a surety insurer authorized to do business in the state of Florida as surety (“Bond”), in accordance with Sec. 255.05, Fla. Stat., as may be amended or revised, as security for the faithful performance and payment of all of the Contractor’s obligations under the Contract Documents. The performance and payment bond shall remain in full force and effect during the Project and 60 days beyond the contract term for close out.

18.3 Insurance Requirements

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

The coverages, limits, and/or endorsements required herein protect the interests of the City, and these coverages, limits, and/or endorsements shall in no way be relied upon by the Contractor for assessing the extent or determining appropriate types and limits of coverage to protect the Contractor against any loss exposures, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the City's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Agreement.

The following insurance policies and coverages are required:

Commercial General Liability

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

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

Policy must include coverage for contractual liability and independent contractors.

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

Business Automobile Liability

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

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

Contractors Pollution Liability Coverage

For sudden and gradual occurrences and in an amount not less than \$1,000,000 per claim arising out of this Agreement, including but not limited to, all hazardous materials identified under the Agreement.

Professional Liability and/or Errors and Omissions (if architectural or engineering services are provided)

Coverage must be afforded for Wrongful Acts in an amount not less than \$5,000,000 each claim and \$5,000,000 aggregate.

Contractor must keep insurance in force until the third anniversary of expiration of this Agreement or the third anniversary of acceptance of work by the City.

**Workers' Compensation and Employer's Liability**

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

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

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

**Property Coverage (Builder's Risk)**

Coverage must be afforded in an amount not less than 100% of the total project cost, including soft costs, with a deductible of no more than \$25,000 each claim. Coverage form shall include, but not be limited to:

- All Risk Coverage including Flood and Windstorm with no coinsurance clause
- Guaranteed policy extension provision
- Waiver of Occupancy Clause Endorsement, which will enable the City to occupy the facility under construction/renovation during the activity
- Storage and transport of materials, equipment, supplies of any kind whatsoever to be used on or incidental to the project
- Equipment Breakdown for cold testing of all mechanized, pressurized, or electrical equipment

For installation of property and/or equipment, Contractor must provide Builder's Risk Installation insurance to include coverage for materials or equipment stored at the project site, while in transit, or while stored at a temporary location. Coverage limit must be no less than replacement cost.

This policy shall insure the interests of the owner, contractor, and subcontractors in the property against all risk of physical loss and damage, and name the City as a loss payee. This insurance shall remain in effect until the work is completed and the property has been accepted by the City.

**Umbrella/Excess Liability**

The Contractor shall provide umbrella/excess coverage with limits of no less than \$2,000,000 excess of Commercial General Liability, Automobile Liability and Employer's Liability.

**Insurance Certificate Requirements**

- a. The Contractor shall provide the City with valid Certificates of Insurance (binders are unacceptable) no later than ten (10) days prior to the start of work contemplated in this Agreement.
- b. The Contractor shall provide to the City a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.
- c. In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the Contractor to provide the proper notice. Such notification

- will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.
- d. In the event the Agreement term goes beyond the expiration date of the insurance policy, the Contractor shall provide the City with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The City reserves the right to suspend the Agreement until this requirement is met.
  - e. The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
  - f. The City shall be named as an Additional Insured on all liability policies, with the exception of Workers' Compensation.
  - g. The City shall be granted a Waiver of Subrogation on the Contractor's Workers' Compensation insurance policy.
  - h. The title of the Agreement, Bid/Contract number, event dates, or other identifying reference must be listed on the Certificate of Insurance.

The Certificate Holder should read as follows:

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

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

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

The Contractor's insurance coverage shall be primary insurance as respects to the City, a Florida municipal corporation, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, a Florida municipal corporation, its officials, employees, or volunteers shall be non-contributory.

Any exclusion or provision in any insurance policy maintained by the Contractor that excludes coverage required in this Agreement shall be deemed unacceptable and shall be considered breach of contract.

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

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

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

**Loss Control/Safety**

Precaution shall be exercised at all times by the Contractor for the protection of all persons, including employees, and property. The Contractor shall comply with all laws, regulations, or ordinances relating to safety and health, and shall make special effort to detect hazardous conditions and shall take prompt action where loss control/safety measures should reasonably be expected.

The City may order work to be stopped if conditions exist that present immediate danger to persons or property. The Contractor acknowledges that such stoppage will not shift responsibility for any loss or damages from the Contractor to the City.

**The Certificate Holder must read as follows:**

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

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

If the DESIGN/BUILD FIRM primary insurance policy/policies do not meet the minimum requirements, as set forth in this Agreement, the DESIGN/BUILD FIRM may provide an Umbrella/Excess insurance policy to comply with this requirement.

The DESIGN/BUILD FIRM's insurance coverage shall be primary insurance as respects to the CITY, a Florida municipal corporation, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the CITY, a Florida municipal corporation, its officials, employees, or volunteers shall be non-contributory.

Any exclusions or provisions in any insurance policy maintained by the DESIGN/BUILD FIRM that excludes coverage required in this Agreement shall be deemed unacceptable and shall be considered breach of contract.

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

The DESIGN/BUILD FIRM shall provide notice of any and all claims, accidents, and any

other occurrences associated with this Agreement to the DESIGN/BUILD FIRM's insurance company or companies and the CITY's Risk Management office, as soon as practical.

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

Certificates will indicate no modification or change in insurance shall be made without thirty (30) days in advance notice to the certificate holder. Compliance with the foregoing requirements shall not relieve the DESIGN/BUILD FIRM of its liability and obligation under this section or under any other Section of this Agreement.

- 18.5 The DESIGN/BUILD FIRM shall be responsible for assuring that the insurance certificates required in conjunction with this Section remain in force for the duration of the Project. If insurance certificates are scheduled to expire during the contractual period, the DESIGN/BUILD FIRM shall be responsible for submitted new or renewed insurance certificates to the CITY at a minimum of thirty (30) calendar days in advance of such expiration. In the event that expired certificates are not replaced with new or renewed certificates that cover the contractual period, the CITY shall:
- A. Suspend the Agreement until such time as the new or renewed certificates are received by the CITY;
  - B. The CITY may, at its sole discretion, terminate the Agreement for cause and seek damages from the DESIGN/BUILD FIRM in conjunction with the violation of the terms and conditions of the Agreement.

#### ARTICLE 19 - SUBSTANTIAL COMPLETION

- 19.1 When DESIGN/BUILD FIRM considers that the Project, or a designated portion thereof, which is acceptable to CITY, in the event CITY chooses to accept same pursuant to the sole authority and discretion, is substantially complete, DESIGN/BUILD FIRM shall so notify the Project Manager, in writing, and shall prepare for submission to the Project Manager a thorough list of items to be completed or corrected, together with a schedule for completion of all items. The failure to include any items on such list does not alter the responsibility of DESIGN/BUILD FIRM to complete all Work in accordance with the Contract Documents. The Project Manager, and such other persons as they may deem necessary, shall conduct a joint inspection to determine that the Project (or designated portion thereof) is substantially complete.
- 19.2 The Project Manager will then instruct DESIGN/BUILD FIRM to prepare and deliver to the Contract Administrator a Certificate of Substantial Completion which shall establish the date of Substantial Completion for the Project (or that portion of the Project). After review of the certificate by the Contract Administrator, CITY shall either accept or reject the certificate. Acceptance of Substantial Completion by CITY shall be based upon compliance with the Contract Documents and Applicable Laws. DESIGN/BUILD FIRM shall have thirty (30) days to complete the items listed therein. Warranties required by the Contract Documents and submitted in appropriate form to the Project Manager along with the request for Substantial Completion shall commence on the date of Substantial Completion of the Project (or for that



portion of the Project). The Certificate of Substantial Completion shall be submitted to CITY through the Project Manager and DESIGN/BUILD FIRM for its written acceptance of the responsibilities assigned to it in such Certificate.

## **ARTICLE 20 - FINAL COMPLETION**

- 20.1 When the DESIGN/BUILD FIRM considers that the Project, or a designated portion thereof, which is acceptable to CITY, in the event CITY chooses to accept same pursuant to the sole authority and discretion, is finally complete, DESIGN/BUILD FIRM shall so notify the Project Manager, in writing, that the work is complete, and that the DESIGN/BUILD FIRM has satisfied all prerequisites to Final Completion. The DESIGN/BUILD FIRM and the Project Manager and such other persons as they may deem necessary, shall conduct a final inspection. The DESIGN/BUILD FIRM will notify in writing of all particulars in which this inspection reveals that the Work is incomplete, non-conforming or defective. Construction Manager shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies and shall notify all Parties that the Project (or designated portion thereof) is finally complete.

After Project Manager will then instruct DESIGN/BUILD FIRM to prepare and deliver to the Project Manager a Certificate of Final Completion which shall establish the date of Final Completion for the Project (or that portion of the Project). After review of the certificate by the Project Manager, CITY shall either accept or reject the certificate. Acceptance of Final Completion by CITY shall be based upon compliance with the Contract Documents and Applicable Laws. DESIGN/BUILD FIRM shall have thirty (30) days to complete the items listed therein. Warranties required by the Contract Documents and submitted in appropriate form to the Project Manager along with the request for Final Completion shall commence on the date of Final Completion of the Project (or for that portion of the Project). The Certificate of Final Completion shall be submitted to CITY through the Project Manager and DESIGN/BUILD FIRM for its written acceptance of the responsibilities assigned to it in such certificate.

## **ARTICLE 21 - SHOP DRAWINGS AND SCHEDULE OF VALUES**

- 21.1 DESIGN/BUILD FIRM shall submit Shop Drawings for all equipment, apparatus, machinery, fixtures, piping, wiring, fabricated structures and manufactured articles. The purpose of a Shop Drawing is to show the suitability, efficiency, technique of manufacture, installation requirements, details of the item and evidence of its compliance or noncompliance with the Contract Documents.
- 21.2 DESIGN/BUILD FIRM shall thoroughly review and check the Shop Drawings and each and every copy shall show DESIGN/BUILD FIRM's approval thereon.
- 21.3 If the Shop Drawings show or indicate departures from the Contract requirements, DESIGN/BUILD FIRM shall make specific mention thereof in its shop drawing submittal and a separate letter. Failure to point out such departures shall not relieve DESIGN/BUILD FIRM from its responsibility to comply with the Contract Documents. Project Manager shall determine acceptability of change and, in considering said change, may require data, technical comparisons, cost comparisons, quality comparisons and/or calculations to determine the equality of deviations. Contract Administrator is not obligated to accept deviations.

- 21.4 No acceptance will be given to partial submittal of Shop Drawings for items which interconnect and/or are interdependent. It is DESIGN/BUILD FIRM's responsibility to assemble the Shop Drawings for all such interconnecting and/or independent items, check them, and then make one (1) submittal to the Project Manager, along with DESIGN/BUILD FIRM's comments as to compliance, noncompliance, or features requiring special attention.
- 21.5 If catalog sheets or prints of manufacturers' standard drawings are submitted as Shop Drawings, any additional information or changes on such drawings shall be typewritten or lettered in ink. Catalog sheet with multiple options shall be highlighted to depict specific pertinent data including options.
- 21.6 DESIGN/BUILD FIRM shall submit to Project Manager five (5) copies. Re-submissions of Shop Drawings shall be made in the same quantity until final acceptance is obtained.
- 21.7 Project Manager's acceptance of the Shop Drawings, as approved by DESIGN/BUILD FIRM, will be for general compliance with the Plans and Specifications, and shall not relieve DESIGN/BUILD FIRM of responsibility for the accuracy of such Drawings, nor for the proper fittings and construction of the Work, nor for the furnishing of the materials or Work required by the Agreement and not indicated on the Drawings.
- 21.8 DESIGN/BUILD FIRM shall keep one (1) set of Shop Drawings, marked with the Project Manager's acceptance, as the Project site at all times.
- 21.9 The DESIGN/BUILD FIRM shall submit a Schedule of Values to the Project Manager as specified in the Technical Specifications. DESIGN/BUILD FIRM shall submit to the Project Manager a separate Schedule of Values for demolition, abatement, and site work ten (10) calendar days prior to commencing such portion of the Work. The schedule will be typed on 8 ½" x 11" white paper listing: title of Project, location, Project number, Consultant, Contractor, Contract designation and date of submission. The schedule shall list the installed value of the component parts of the Work in sufficient detail to serve as a basis for computing values for progress payments during the construction. The table of contents of the specifications shall establish the format for listing the component items. Each line item will be identified by the number and title of the respective major section of the specifications. For each line item, DESIGN/BUILD FIRM shall list the sub-values of major products or operations under the item. Each item shall include the proportion of DESIGN/BUILD FIRM's overhead and profit. For any items for which progress payments will be requested for stored materials, the value will be broken down with:
- A. Schedule must include the following but is not limited to:
    - Separate identifiable activity on the critical path, an activity labeled "Other Conditions Allowance." This activity duration shall be thirty (30) calendar days and inserted at the end of the schedule prior to Substantial Completion. This allowance may or may not be used at the discretion of the CITY. Use of this activity shall be subject to the review and approval of the CITY and the Design Criteria Professional. The duration of the "Other Conditions Allowance" activity shall be reduced as other conditions are experienced and inserted in the schedule;
  - B. The cost of materials delivered, unloaded, properly stored and safeguard, with taxes paid; and
  - C. The total installed value review.

**ARTICLE 22 - FIELD ENGINEERING**

- 22.1 The DESIGN/BUILD FIRM shall provide and pay for field engineering services required for the Project. This Work shall include the following elements:
- A. Survey work required in execution of the Project;
  - B. Civil, structural or other professional engineering, architectural, landscape architectural, or land surveying services specified, or required to execute the DESIGN/BUILD FIRM's construction methods;
  - C. The survey completed by DESIGN/BUILD FIRM will identify the qualified engineer or registered land surveyor, acceptable to the CITY, and he or she shall be retained by the DESIGN/BUILD FIRM at the outset of this Project;
  - D. The survey will locate and protect control points prior to starting site work, and will preserve all permanent reference points during construction;
  - E. No changes or relocations will be made without prior written notice to the Project Manager;
  - F. A written report shall be made to the Project Manager when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations;
  - G. The surveyor shall be required to replace Project control points which may be lost or destroyed. The surveyor shall be duly registered as a surveyor or mapper, as required by state law;
  - H. Replacement shall be established based upon original survey control.
- 22.2 The survey completed by DESIGN/BUILD FIRM will identify the qualified engineer or registered land surveyor, acceptable to the CITY, and he or she shall be retained by the DESIGN/BUILD FIRM at the outset of this Project.
- 22.2.1 The survey will locate and protect control points prior to starting sitework, and will preserve all permanent reference points during construction.
  - 22.2.2 No changes or relocations will be made without prior written notice to the Project Manager.
  - 22.2.3 A written report shall be made to the Project Manager when any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations.
  - 22.2.4 The surveyor shall be required to replace Project control points which maybe lost or destroyed. The surveyor shall be duly registered as a surveyor or mapper, as required by state law.
  - 22.2.5 Replacements shall be established based upon original survey control.

**ARTICLE 23 - FIELD LAYOUT OF THE WORK AND RECORD DRAWINGS**

- 23.1 The entire responsibility for establishing and maintaining a line and grade in the field lies with DESIGN/BUILD FIRM. DESIGN/BUILD FIRM shall maintain an accurate and precise

horizontal and vertical record of the existing pavement conditions; final pavement conditions; and all pipelines, conduits, structures, underground utility access portals, handholes, fittings, etc. encountered or installed during construction. DESIGN/BUILD FIRM shall deliver these records in good order to the Contract Administrator as the Work is completed. These records shall serve as a basis for "as-built" drawings. The cost of all such field layout and recording work is included in the Contract Price.

- 23.2 DESIGN/BUILD FIRM shall maintain in a safe place at the site, one (1) record copy of the Plans and Specifications, addenda, written amendments, Change Orders and written interpretations and clarifications, in good order and annotated to show all changes made during construction. These record documents, together with all approved samples and a counterpart of all approved Shop Drawings, will be available to Contract Administrator for reference. Upon completion of the Project, these record documents, samples and Shop Drawings shall be delivered to Contract Administrator.
- 23.3 At the completion of the Project, the DESIGN/BUILD FIRM shall turn over to the CITY a set of reproducible drawings and a complete set of all drawings in the latest version of AutoCAD on Compact Disk, not compressed, which accurately reflect the "as-built" conditions of the new facilities. All changes made to the Construction Documents, either as clarifications or as changes, will be reflected in the plans. The changes shall be submitted at least monthly to the Project Manager. These "as-built" drawings are to be AutoCAD version 2018 and to CITY Standard Details and CADD Standards. Format media must be delivered and found to be acceptable prior to final payments.

#### **ARTICLE 24 - NO DAMAGES FOR DELAY**

- 24.1 NO CLAIM FOR DAMAGES OR ANY CLAIM OTHER THAN FOR AN EXTENSION OF TIME SHALL BE MADE OR ASSERTED AGAINST CITY BY REASON OF ANY DELAYS. DESIGN/BUILD FIRM shall not be entitled to an increase in the Contract Price or payment or compensation of any kind from 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 hindrance be reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable; provided, DESIGN/BUILD FIRM hindrances or delays are not due solely to fraud, bad faith or active interference by the CITY, DESIGN/BUILD FIRM shall be entitled only to extensions of the Contract Time as the sole and exclusive remedy for such resulting delays, in accordance with and to the extent specifically provided above. The specific application of this Article to other provisions of this Agreement shall not be construed as a limitation of any sort upon the further application of this Article. Ten Dollars (\$10.00) of DESIGN/BUILD FIRM's fee is acknowledged as separate and independent consideration for the covenants contained in this Article.

#### **ARTICLE 25- LIMITATION OF LIABILITY**

- 25.1 The CITY desires to enter into this Agreement only if in so doing the CITY can place a limit on the CITY's liability for any cause of action arising out of this Agreement, so that the CITY's liability for any breach never exceeds the sum of \$1,000.00. For other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the DESIGN/BUILD FIRM hereby expresses its willingness to enter into this Agreement with the

knowledge that the DESIGN/BUILD FIRM's recovery from the CITY to any action or claim arising from the Agreement is limited to a maximum amount of \$1,000.00, which amount shall be reduced by the amount actually paid by the CITY to the DESIGN/BUILD FIRM pursuant to this Agreement, for any action or claim arising out of this Agreement. Nothing contained in this paragraph or elsewhere in this Agreement is in any way intended either to be a waiver of the limitation placed upon the CITY's liability beyond the limits established in Section 768.28, Florida Statutes; and no claim or award against the CITY shall include attorney's fees, investigative costs, expert fees, suit costs or pre-judgment interest.

#### ARTICLE 26 - GOVERNING LAW

- 26.1 This Agreement shall be interpreted and construed in accordance with and governed by the laws of the State of Florida. Any controversies or legal problems arising out of this Agreement and any action involving the enforcement or interpretation of any rights hereunder shall be submitted to the exclusive jurisdiction of the State courts of the Seventeenth Judicial Circuit of Broward County, Florida, the venue situs, and shall be governed by the laws of the State of Florida. To encourage prompt and equitable resolution of any litigation that may arise hereunder, DESIGN/BUILD FIRM SHALL SPECIFICALLY BIND ITS PROJECT TEAM MEMBERS AND ANY AND ALL SUBCONTRACTORS TO THE PROVISIONS OF THE AGREEMENT.

#### ARTICLE 27 - MISCELLANEOUS PROVISIONS

- 27.1 **OWNERSHIP OF DOCUMENTS:** All finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, specifications, plans and reports prepared or provided by DESIGN/BUILD FIRM in connection with this Agreement shall become the property of CITY, whether the Project for which they are made is completed or not, shall become the property of CITY and shall be delivered by DESIGN/BUILD FIRM to Project Manager within fifteen (15) days of the receipt of the written notice of termination or upon completion of the Project. If applicable, CITY may withhold payments then due to DESIGN/BUILD FIRM until DESIGN/BUILD FIRM complies with the provisions of this section.
- 27.2 **AUDIT RIGHT AND RETENTION OF RECORDS:** CITY shall have the right to audit the books, records, and accounts of DESIGN/BUILD FIRM that are related to this Project. DESIGN/BUILD TEAM shall keep such books, records, and accounts as may be necessary in order to record complete and correct entries related to the Project. DESIGN/BUILD FIRM shall preserve and make available, at reasonable times for examination and audit by CITY, all financial records, supporting documents, statistical records, and any other documents pertinent to this Agreement for the required retention period of the Florida Public Records Act, Chapter 119, Florida Statutes, or, if the Florida Public Records Act is not applicable, for a minimum period of three (3) years after termination of this Agreement. If any audit has been initiated and audit findings have not been resolved at the end of the retention period or three (3) years, whichever is longer, the books, records, and accounts shall be retained until resolution of the audit findings. If the Florida Public Records Act is determined by CITY to be applicable to DESIGN/BUILD FIRM's records, DESIGN/BUILD FIRM shall comply with all requirements thereof; however, no confidentiality or non-disclosure requirement of either federal or state law shall be violated by DESIGN-BUILD FIRM. Any incomplete or incorrect entry in such books, records, and accounts shall be a basis for CITY's disallowance and recovery of any payment upon such entry.

- 27.3 **ARCHITECT/ENGINEER:** DESIGN/BUILD FIRM shall use the architect/engineer, including subconsultants, identified in the proposal that were a material part of the selection of the DESIGN/BUILD TEAM to provide the services for this Project. DESIGN/BUILD FIRM shall obtain written approval of CITY's Public Works Director prior to changing or modifying the list of subconsultants submitted by the DESIGN/BUILD FIRM. SEE APPENDICES attached hereto and made a part hereof.
- 27.4 **ASSIGNMENT AND PERFORMANCE:** Neither this Agreement nor any interest herein shall be assigned, transferred, or encumbered without the prior written consent of the other Party.
- 27.5 **ONE ORIGINAL AGREEMENT:** This Agreement will be executed in one original.
- 27.6 **ALL PRIOR AGREEMENTS SUPERSEDED:** This Agreement incorporates and includes all prior negotiations, correspondence, conversations, agreements or understandings applicable to the matters contained herein; and the Parties agree that there are no commitments, agreements or understandings concerning the subject matter of this Agreement that are not contained in this Agreement. Accordingly, the Parties agree that no deviation from the terms hereof shall be predicated upon any prior representations or agreements whether oral or written.
- 27.7 **AMENDMENTS:** No modification, amendment, or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed by both Parties with the same formality and of equal dignity herewith.
- 27.8 **INDEPENDENT CONTRACTOR:** DESIGN/BUILD FIRM is an independent contractor under this Agreement. Services provided by DESIGN/BUILD FIRM shall be subject to the supervision of DESIGN/BUILD FIRM. In providing the services, DESIGN/BUILD FIRM or its agents shall not be acting and shall not be deemed as acting as officers, employees, or agents of the CITY. No partnership, joint venture, or other joint relationship is created hereby. CITY does not extend to DESIGN/BUILD FIRM or its agents any authority of any kind to bind CITY in any respect whatsoever.
- 27.9 **THIRD PARTY BENEFICIARIES:** Neither DESIGN/BUILD FIRM or CITY intends to directly or substantially benefit a third party by this Agreement. The Parties expressly acknowledge that it is not their intent to create any rights or obligations in any third person or entity under this Agreement. Therefore, the Parties agree that there are no third party beneficiaries to this Agreement and that no third party shall be entitled to assert a claim against either of them based upon this Agreement.
- 27.10 **WAIVER OF BREACH AND MATERIALITY:** Failure by the CITY or DESIGN/BUILD FIRM to enforce any provision of this Agreement shall not be deemed a waiver of such provision or modification of this Agreement.
- 27.11 **MATERIAL TERM:** CITY and DESIGN/BUILD FIRM agree that each requirement, duty, and obligation set forth herein is substantial and important to the formation of this Agreement, and therefore, is a material term hereof.
- 27.12 **COMPLIANCE WITH LAWS:** DESIGN/BUILD FIRM shall comply with all federal, state, and local laws, codes, ordinances, rules and regulations in performing its duties, responsibilities, and obligations related to this Agreement.

- 27.13 **NONDISCRIMINATION, EQUAL EMPLOYMENT OPPORTUNITY, AND AMERICANS WITH DISABILITIES ACT:** DESIGN/BUILD FIRM shall not unlawfully discriminate against any person in its operations and activities in its use or expenditure of the funds or any portion of the funds provided by this Agreement and shall affirmatively comply with all applicable provisions of the Americans with Disabilities Act in the course of providing any services funded in whole or in part by CITY, including Titles 1 and 11 of the Act, and all applicable regulations, guidelines and standards.

DESIGN/BUILD FIRM's decisions regarding the delivery of work and services under this Agreement shall be made without regard to or consideration of race, age, religion, color, gender, sexual orientation, 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.

DESIGN/BUILD FIRM shall comply with Title 1 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, national origin, marital status, political affiliation, or physical or mental disability. In addition, DESIGN/BUILD FIRM 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.

DESIGN/BUILD FIRM shall take affirmative action to ensure that applicants are employed and employees are treated without regard to race, age, religion, color, gender, sexual orientation, 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.

- 27.14 **PUBLIC ENTITY CRIMES ACT:** In accordance with the Public Entity Crimes Act, Sec. 287.133, Florida Statutes, a person or affiliate who is a contractor, consultant or other provider, who has been placed on the convicted vendor list following a conviction for a Public Entity Crime, may not submit a bid on a contract to provide any goods or services to the CITY, may not submit a bid on a contract with the CITY for the construction or repair of a public building or public work, may not submit bids on leases of real property to the CITY, may not be awarded or perform work as a contractor supplier, subcontractor or consultant under a contract with the CITY and may not transact any business with the CITY in excess of the threshold amount provided in Section 287.017, Florida Statutes, as amended, for category two purchases for a period of thirty-six (36) months from the date of being placed on the convicted vendor list. Violation of this Section shall result in cancellation of the CITY purchase and may result in debarment
- 27.15 .
- 27.16 **SEVERENCE:** In the event a portion of this Agreement is found by a court of competent jurisdiction to be invalid, the remaining provisions shall continue to be effective unless CITY elects to terminate this Agreement. The election to terminate this Agreement based upon this

provision shall be made within seven (7) days after the finding by the court becomes final.

- 27.17 **JOINT PREPARATION:** Preparation of this Agreement has been a joint effort of the CITY and DESIGN/BUILD FIRM and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the Parties than any other.
- 27.18 **PRIORITY OF PROVISIONS:** If there is a conflict or inconsistency between any term, statement, requirement, or provision of any exhibit attached hereto, any document or events referred to herein, or any document incorporated into this Agreement by reference and a term, statement, requirement, or provision of this Agreement, the term, statement, requirement, or provision contained in Articles 1 through 21 shall prevail and be given effect.

In the event of a conflict among the Contract Documents, the most stringent requirement shall control.

- 27.19 **TAXES:** DESIGN/BUILD FIRM shall pay all applicable sales, consumer, use and other taxes as required by law. DESIGN/BUILD FIRM is responsible for reviewing the pertinent state statutes involving state taxes and complying with all requirements. All such taxes that are required as of the time of Agreement execution shall be included in the Not To Exceed Guaranteed Maximum Price.
- 27.20 **SCRUTINIZED COMPANIES:** Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), affirmed, *Odebrecht Construction, Inc., v. Secretary*, Florida Department of Transportation, 715 F.3d 1268 (11th Cir. 2013), with regard to the “Cuba Amendment,” the DESIGN/BUILD FIRM certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2020), as may be amended or revised, and that it is not engaged in a boycott of Israel, and that it does not have business operations in Cuba or Syria, as provided in Section 287.135, Florida Statutes (2020), as may be amended or revised. The CITY may terminate this Agreement at the CITY’s option if the DESIGN/BUILD FIRM is found to have submitted a false certification as provided under subsection (5) of Section 287.135, Florida Statutes (2020), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2020), as may be amended or revised, or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2020), as may be amended or revised.

**27.21 PUBLIC RECORDS:**

**IF THE DESIGN/BUILD FIRM HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE DESIGN/BUILD FIRM’S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE**



**CUSTODIAN OF PUBLIC RECORDS AT CITY CLERK'S OFFICE,  
100 N. ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA,  
33301, EMAIL: PRRCONTRACT@FORTLAUDERDALE.GOV,  
PHONE: 954-828- 5002.**

DESIGN/BUILD FIRM shall:

1. Keep and maintain public records required by the CITY in order to perform the service. Upon request from the CITY's custodian of public records, provide the CITY with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes (2020), as may be amended or revised, or as otherwise provided by law.
2. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of this contract if the DESIGN/BUILD FIRM does not transfer the records to the CITY.
3. Upon completion of the Agreement, transfer, at no cost, to the CITY all public records in possession of the DESIGN/BUILD FIRM or keep and maintain public records required by the CITY to perform the service. If the DESIGN/BUILD FIRM transfers all public records to the CITY upon completion of this Agreement, the DESIGN/BUILD FIRM shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the DESIGN/BUILD FIRM keeps and maintains public records upon completion of this Agreement, the DESIGN/BUILD FIRM shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the CITY, upon request from the CITY's custodian of public records, in a format that is compatible with the information technology systems of the CITY.
4. If the DESIGN/BUILD FIRM keeps and maintains public records upon completion of this Agreement, the DESIGN/BUILD FIRM shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the CITY, upon request from the CITY's custodian of public records, in a format that is compatible with the information technology systems of the CITY.

**[THIS SPACE WAS INTENTIONALLY LEFT BLANK]**

TITLE: Design Build Pump Station A-16 Upgrade - Wastewater  
Project No. 12412

CITY

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

CITY OF FORT LAUDERDALE, a Florida  
municipal corporation

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

CHRISTOPHER J. LAGERBLOOM  
City Manager

Date: \_\_\_\_\_

ATTEST:

(CORPORATE SEAL)

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

JEFFREY A. MODARELLI  
City Clerk

Approved as to Legal Form:  
Alain E. Boileau, City Attorney

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

RHONDA MONTOYA HASAN  
Assistant City Attorney

Sample Agreement

TITLE: Design Build Pump Station A-16 Upgrade - Wastewater  
Project No. 12412

**CONTRACTOR**

WITNESSES:

\_\_\_\_\_,  
a Florida Corporation.

\_\_\_\_\_

By: \_\_\_\_\_,  
\_\_\_\_\_, President

\_\_\_\_\_  
Print Name

\_\_\_\_\_

\_\_\_\_\_  
Print Name

ATTEST:

(CORPORATE SEAL)

\_\_\_\_\_

STATE OF \_\_\_\_\_:

COUNTY OF \_\_\_\_\_:

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 2021, by Name., as Title, for Company., a Florida corporation.

\_\_\_\_\_  
(Signature of Notary Public - State of Florida)

\_\_\_\_\_  
(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known \_\_\_\_\_ or Produced Identification \_\_\_\_\_

Type of Identification Produced: \_\_\_\_\_

*DESIGN CRITERIA PACKAGE (DCP)*

**Pump Station A-16 Upgrade  
Wastewater Design Criteria Package**

**City of Fort Lauderdale  
Project No. 12412**

043184401  
October 2021  
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PUMP STATION A-16 UPGRADE  
WASTEWATER DESIGN CRITERIA PACKAGE

PROJECT NO. 12412

## **SECTION 7 DESIGN CRITERIA PACKAGE NARRATIVE**

### **PUMP STATION A-16 UPGRADE WASTEWATER DESIGN CRITERIA PACKAGE CITY OF FORT LAUDERDALE, PROJECT NO. 12412**

#### **I. PROJECT OBJECTIVE**

A new Federal Court House is proposed at the intersection of SE 11th Street and SE 3rd Avenue located in the City of Fort Lauderdale. Construction of the proposed Federal Court House will impact an existing wastewater pump station (Pump Station A-16), associated 10-inch gravity sewer and 6-inch force main piping, and a 30-inch water main all currently owned and operated by the City of Fort Lauderdale. The project objective is to relocate all CITY owned wastewater related utilities that impact construction of the new Federal Court House on the proposed site. To minimize community and environmental impacts, the CITY requires the new force main construction to utilize horizontal directional drill (HDD) construction methods. The new submersible pump station and associated gravity sewer will utilize open-cut construction methods. The existing Pump Station A-16 associated wastewater piping currently on the new Federal Court House site will be abandoned. A separate DCP will be provided by the CITY for all work associated with relocating and abandoning all water related utilities that impact construction of the new Federal Court House on the proposed site. The conceptual water main relocation to be performed by others is shown on the Conceptual Plans for reference only, but coordination as needed with the separate Design Build Firm responsible for the water system relocations is included in this contract and the responsibility of this DBF.

The CITY has issued this Request for Proposal (RFP) to solicit competitive proposals from a Design Build Firm (DBF) for the design build services for the design, permitting, construction, testing, and start-up of the Pump Station A-16 Upgrade, Wastewater Design Criteria Package Project (PROJECT) in accordance with the terms, conditions, and specifications for the PROJECT.

#### **II. PROJECT SCOPE**

The selected DBF shall perform the complete design, permitting, and construction of all aspects of the PROJECT to fulfill the intent of the PROJECT as described in this DCP and all supporting documents. Included in the PROJECT is the acquisition of all tools, equipment, materials, and other supplies including but not limited to fuel, power, water, and communication devices required to complete the PROJECT.

The work also includes the performance of all labor, work, and other operations required to complete the PROJECT. All work must be complete with all work, materials, and services not directly specified in the Contract Documents but necessary for the

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PROJECT NO. 12412

completion of the PROJECT to fulfill the intent of the CITY performed and installed by the DBF at no additional cost to the CITY above what is agreed upon in the Contract Documents.

PROJECT shall include:

1. Construction of a new submersible duplex wastewater pump station with control panel and electrical service (Pump Station A-16) relocated to a site approximately 210 feet east of the SE 4th Avenue and SE 11th Street intersection on SE 11th Street.
2. Construction of approximately 220 linear feet of new 18-inch PVC gravity sewer with new sanitary manholes from an existing sanitary sewer manhole located at the intersection of SE 4<sup>th</sup> Avenue and SE 11<sup>th</sup> Street to the new Pump Station A-16 location on SE 11th Street.
3. Connection of the new 18-inch PVC gravity sewer piping at the proposed Pump Station A-16 and with the existing manhole at the intersection of SE 4th Avenue and SE 11th Street as shown on the Conceptual Drawings.
4. Construction of approximately 2,150 linear feet of new 12-inch HDPE force main from the new Pump Station A-16 on SE 11th Street to a connection point with the CITY's existing 36-inch force main on SE 7th Street. As shown on the conceptual drawings, the proposed 12-inch force main route is along SE 11th Street, SE 3rd Avenue, SE 8th Street, and SE 4th Avenue. The 12-inch HDPE force main is proposed to be installed utilizing HDD methods, requires a subaqueous crossing where SE 3rd Street crosses Tarpon River, and includes approximately 170 linear feet of open cut, 12-inch C900 PVC pipe with DIP fittings at force main connections and bends. All costs associated with existing utility exploration, design development of the complete force main system including HDD and open cut plans and coordination as needed with the separate water related DBF are the responsibility of the DBF.
5. Connection of the new 12-inch HDPE force main at the proposed Pump Station A-16 on SE 11th Street and with an existing 36-inch force main at the intersection of SE 4<sup>th</sup> Avenue and SE 7<sup>th</sup> Street as shown on the Conceptual Drawings.
6. Abandon and decommission the existing wet pit/dry pit duplex Pump Station A-16 including controls and electrical service located on SE 4<sup>th</sup> Avenue just north of SE 11<sup>th</sup> Street.
7. Abandon all existing gravity sewer piping and sanitary manholes on SE 4th Avenue and SE 10th Court associated with the existing Pump Station A-16 as shown on the Conceptual Drawings.

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8. Abandon all existing force main piping on SE 4th Avenue from the existing Pump Station A-16 to an existing sanitary manhole on SE 4th Avenue just south of SE 9th Court as shown on the Conceptual Drawings.

Additional to the design, permitting, and construction of the PROJECT, the DBF is to perform inspections, utility testing, construction certification, construction management, coordination with separate water main DBF, public involvement, equipment startup, and all associated work described in the DCP or as determined necessary by the DBF and confirmed by the CITY to fulfill the PROJECT intent. The terms and conditions of the contract shall consist of the RFP documents including the DCP with all exhibits and attachments in addition to the proposal accepted by the CITY.

The DBF will be responsible for the complete design, topographic survey, benthic survey, geotechnical reports, environmental reports, submittal and procurement of all required design, environmental, and construction permit packages, construction phasing, dewatering, stormwater pollution prevention, maintenance of traffic, public involvement, and all other related work/services. The DBF will assume all responsibilities associated with being the PROJECT Engineer of Record (EOR).

This DCP conveys the minimum requirements of the CITY regarding the design, permitting, construction, maintenance of traffic operations, management, and scheduling of the PROJECT including coordination with local, county, and state governments and regulating agencies necessary to obtain permits for construction.

### **Project Background**

A new Federal Court House is proposed at the intersection of SE 11th Street and SE 3rd Avenue located in the City of Fort Lauderdale. Construction of the proposed Federal Court House will impact an existing wastewater pump station (Pump Station A-16), associated 10-inch gravity sewer and 6-inch force main piping owned and operated by the City of Fort Lauderdale. The project intent is to relocate all CITY owned wastewater related utilities that impact construction of the new Federal Court House on the proposed site. Included in Sections 8 and 10 are the technical specifications and the conceptual plans which describe the intent of the PROJECT. The Respondent should prepare a response to the CITY's RFP based on this information.

All design elements including but not limited to siting and construction of a new submersible duplex wastewater pump station, construction and connection of the proposed gravity sewer system, construction and connection of the proposed force main system, abandonment and decommission of the existing wet pit/dry pit duplex wastewater pump station, abandonment of existing gravity sewer system, and abandonment of existing force main piping are to be determined by the selected DBF as a part of the scope of the PROJECT. Once selected, the DBF will hold complete responsibility for the design, permitting, and construction of all aspects of the PROJECT as the PROJECT Engineer of Record (EOR). Completed construction documents are to be developed by the selected DBF and follow all criteria outlined in this document. Additionally, the selected DBF will

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carry out all aspects of construction following the requirements set forth in this document and as regulated by all permits for the PROJECT.

### **DBF Procurement**

The CITY will procure a DBF to complete all services in the scope of work described herein. Proposals will be solicited, and selection criteria will be established by the CITY following the City of Fort Lauderdale Code of Ordinances C-17-26. A qualified DBF will be selected accordingly.

### **III. PROJECT REQUIREMENTS**

The selected DBF must use effective project management practices while working on the PROJECT. Included in project management is clear communication with the CITY and other parties involved in the PROJECT, management of time and resources, and documentation of all services and communication. Contract administration and technical reviews of all work pertaining to the PROJECT will be performed by the CITY.

#### **Site Inventory and Evaluation of City's Criteria Confirmation**

1. Site investigations, including but not limited to survey, subsurface utility investigations, geotechnical investigations, environmental engineering, to verify existing conditions if necessary.
2. Preliminary evaluation of proposed site use, material selection, construction systems and equipment and provide recommendations on constructability, time, labor and scheduling factors related to project costs.
3. No inspection, failure to inspect, or waiver of inspection on the part of the City shall not relieve the DBF of their duty to complete the Work as described in this RFP.
4. DBF agrees that the price specified on the Price Proposal Form is based on the DBF examination of the site and that no claim for additional compensation shall be made if the conditions encountered differ from those anticipated by such examination.

#### **Design and Construction Criteria**

The selected DBF shall take a comprehensive and thorough technical approach to completing the design-build operation outlined for the PROJECT. Submitted technical proposals must convey that the DBF has a complete understanding of the PROJECT, its intent, and CITY objectives. Additionally, the technical proposal shall address the following items:



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1. Completion of construction documents for the PROJECT which must have emergency contact information as required by the CITY.
2. Procurement of all required construction permits from local, state, and federal agencies including but not limited to the Florida Department of Transportation, South Florida Water Management District, Broward County Environmental Protection and Growth Management Department, Broward County Highway Construction and Engineering Department, Broward County Environmental Engineering and Permitting, Florida Department of Environmental Protection, U.S. Army Corps of Engineers, and the City of Fort Lauderdale. The DBF must develop permitting strategies and determine possible issues, property easement requirements, testing requirements, and timing for the PROJECT.
3. Identification quality control/quality assurance measures to be performed for the PROJECT.
4. Production of signed and sealed record drawings following completion of construction of the PROJECT.

### Detailed Description

The technical proposal submitted by the DBF shall demonstrate a comprehension of the following design aspects:

1. Local subsurface conditions and associated geotechnical data.
2. Open cut excavation and backfilling method of installing pipe and pump stations.
3. HDD method of installing pipe.
4. Pump station mechanical and electrical construction.
5. Subaqueous pipeline crossings.
6. Connection of new pipe to existing, in-service utilities.
7. Abandonment of existing utilities.
8. Landscaping and pavement restoration.
9. Maintenance of traffic operations.

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10. Dewatering.
11. Erosion and sediment control.

### **Governing Regulations**

The selected DBF shall provide services in compliance with all regulations and guidelines created by the City of Fort Lauderdale, Florida Department of Transportation, South Florida Water Management District, Broward County Environmental Protection and Growth Management Department, Broward County Highway Construction and Engineering Department, Florida Department of Environmental Protection, U.S. Army Corps of Engineers and the Occupational Safety and Health Administration. These regulations and guidelines are to be followed by the Selected DBF except where explicitly described in this document. The most recent editions of the following publications must be used for the completion of the PROJECT:

1. Broward County Environmental Protection and Growth Management Department – A Consulting Engineer’s Guide for a Wastewater Collection/Transmission System Construction License Application
2. Florida Department of Environmental Protection - Division of Water Resource Management Rules and Regulations.
3. Florida Building Code
4. South Florida Water Management District – Environmental Resource Permit Information Manual
5. OSHA Regulations for Construction – Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations
6. OSHA Standards – Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations
7. Federal Highway Administration - Manual on Uniform Traffic Control Devices

### **IV. SERVICES AND MATERIALS PROVIDED BY THE CITY**

The CITY or its designee will provide the services in the following list:

1. A project manager will represent the CITY as the technical representative of the PROJECT.

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2. Review of submitted design for the PROJECT.
3. Construction observations and inspections of the PROJECT at the will of the CITY.
4. Participation in the CITY's Tax Saver Program for the purchase of goods and supplies required for the completion of the PROJECT.

## **V. EXISTING UNDERGROUND UTILITY INFORMATION**

There are existing underground utilities in the PROJECT site. Limited information such as Asbuilt drawings associated with these utilities has been provided in Section 12. The CITY does not assume responsibility for the accuracy of the utility documents or liability if the locations of these utilities differ from the documents provided. All costs associated with coordinating and locating existing underground utilities is the responsibility of the DBF.

## **VI. CADD STANDARDS**

All submitted design drawings for the PROJECT shall meet the standards set by the CITY in the "City of Fort Lauderdale Public Works Engineering & Architectural Department CADD Specifications for Project Drawings" (hereinafter referred to as CITY CADD Standards). The selected DBF will comply with the most recent edition of the CITY CADD Standards in place at the time of contract execution. Section 13 includes a copy of the CITY CADD Standards.

## **VII. PROJECT PERMITS**

The CITY has not submitted any permit applications or obtained any permits associated with the design or construction of the PROJECT.

It is the responsibility of the DBF as the PROJECT Engineer of Record (EOR) to apply for and obtain all permits as needed to construct the PROJECT.

## **VIII. TOPOGRAPHIC AND BATHYMETRIC SURVEY**

The CITY did not obtain any topographic or bathymetric surveys associated with the design or construction of the PROJECT. All conceptual plans are based on scaled aerial drawings.

Any topographic or bathymetric survey services as deemed necessary by the selected DBF will be the responsibility of the selected DBF. The selected DBF shall complete signed and sealed as-built documents and submit them to the CITY.

**IX. BENTHIC CHARACTERIZATION SURVEY**

The CITY did not obtain a benthic characterization survey of the PROJECT area.

Any benthic characteristic survey services as deemed necessary by the selected DBF will be the responsibility of the selected DBF.

**X. GEOTECHNICAL REPORT**

The CITY did not obtain a Geotechnical Report of the PROJECT area.

Any geotechnical services as deemed necessary by the selected DBF will be the responsibility of the selected DBF.

**XI. PROVISIONS FOR UTILITIES, DEWATERING, STAGING, AND PARKING**

The selected DBF will be required to pay for all utilities needed for the completion of the PROJECT.

The selected DBF shall only perform dewatering activities after acquiring all applicable permits from regulating agencies with jurisdiction in the PROJECT area. Any dewatering operations performed by the DBF must meet conditions of applicable permits. Any dewatering activities performed by the DBF without proper permits or without meeting permit conditions may result in punitive actions to the DBF by the CITY and Broward County.

The selected DBF will be responsible for the coordination of parking and staging area with the CITY prior to mobilization of equipment and crews into the area. Parking and staging areas must remain free of any form of refuse and the removal of any remaining refuse will be the responsibility of the selected DBF.

**XII. PROJECT MEETINGS**

The CITY shall require meetings throughout the PROJECT which require the participation of the CITY, selected DBF, all subcontractors, all subconsultants, representatives of governmental agencies with jurisdiction in the PROJECT area, and any others as requested by the CITY and/or DBF. All meetings shall be held at a central site that is convenient to all parties.

Following the written Notice to Proceed, the DBF shall coordinate with the CITY to hold a preconstruction meeting. All following meetings shall likewise be organized by the DBF upon instruction from the CITY. The DBF shall prepare meeting minutes.

**XIII. PROJECT DURATION**

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The selected DBF is expected to complete the PROJECT as expeditiously as possible. At minimum, the selected DBF must adhere to the following schedule as set by the CITY:

<b><u>MILESTONE</u></b>	<b><u>MILESTONE DATE</u></b>
Assumed Notice to Proceed Date	TBD
Substantial Completion of PROJECT	September 30, 2022
Final completion of PROJECT	October 31, 2022

Within seven days after notification of award and as a condition precedent to executing the Contract, prior to the start of any work, the DBF shall submit their preliminary construction schedule to CITY for approval which shall be consistent with the schedule in its Proposal. The schedule should be written in sufficient detail to show the chronological relationship of all major aspects of the project, including estimated starting and completion dates of various activities, design phase, procurement of materials, scheduling of equipment, and construction phase with a level of detail commensurate with the level of detail in the Proposal. The schedule is subject to approval by the CITY.

Failure to meet milestones on the above schedule will result in liquidated damages to be paid by the selected DBF as described in the CITY’s general conditions.

The selected DBF is responsible for obtaining all permits needed for the PROJECT. The procurement of permits is critical for the completion of the PROJECT and included as part of the PROJECT duration.

**END OF SECTION 7**

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**SECTION 8  
TECHNICAL SPECIFICATIONS**

**PUMP STATION A-16 UPGRADE  
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**SECTION 01005****GENERAL REQUIREMENTS****PART 1 - GENERAL****1.01 DESCRIPTION OF WORK**

- A. This section provides additional information applicable to the project. Omission of a specific item or component part of a system obviously necessary for the proper functioning of the system shall not relieve the Design Build Firm of the responsibility of furnishing the item as part of the work at no additional cost to the City.
- B. The Specification Divisions and Drawings are an integrated part of the Contract Documents and as such will not stand alone if used independently as individual Sections, Divisions, or Drawing Sheets. The Drawings and Specifications establish minimum standards of quality for this Project. They do not purport to cover all details entering into the design and construction of materials or equipment.
- C. All work associated with this project shall be subject to and in compliance with the City of Fort Lauderdale, Broward County, Florida Department of Environmental Protection, and the Florida Department of Transportation.
- D. Where portions of the work traverse or cross federal, state, county or local highways, roads, streets, or waterways, and the agency in control of such property has established standard specifications governing items of work that differ from these specifications, the most stringent requirements shall apply.

**1.02 RELATED SECTIONS**

- A. Section 01010 – Summary of Work
- B. Section 01150 – Measurement and Payment

**1.03 QUALITY ASSURANCE**

- A. Laws and Regulations: Design Build Firm shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the work. If Design Build Firm observes that the Specifications or Drawings are at variance therewith, Design Build Firm shall give Engineer prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate modification. If Design Build Firm performs any work, knowing or having reason to know, that it is contrary to such laws, ordinances,

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rules, and regulations, and without such notice to Engineer, Design Build Firm shall bear all costs arising therefrom. However, it shall not be Design Build Firm's primary responsibility to make certain that the Specifications and Drawings are in accordance with such laws, ordinances, rules, and regulations.

#### 1.04 PROJECT SPECIFICATIONS/PROJECT DRAWINGS

- A. The project specifications shall consist of the specification sections in this document as well as the applicable sections of the City of Fort Lauderdale Public Works – Engineering Department Standard Specifications and Details, latest revision, Broward County Water and Wastewater Services (WWS), “Minimum Design and Construction Standards” and Highway Construction and Engineering Division “Minimum Standards”, latest revision, the Florida Department of Transportation (FDOT), latest revision, and the Florida Building Codes. All referenced specifications and standards shall have full force and effect as if contained in these documents.
- B. In the case of a conflict between any of the included or referenced specifications and standards, as well as the conceptual project drawings and details, the most conservative of these shall govern.
- C. Items of material, equipment, and the like may be specified on the project drawings and not in the technical specifications. The Design Build Firm shall provide such items in accordance with the General Notes and details on the drawings.

#### 1.05 JOB CONDITIONS

- A. Permits and Licenses: Design Build Firm shall be responsible for verifying the existence of all necessary permits and licenses prior to start of work, obtaining copies, and for complying with provisions or requirements which relate to the performance of construction activities.
- B. Any other permits which may be required shall be the Design Build Firm's responsibility to obtain. Design Build Firm will be required to pay any fees associated with these permits, and any other building permit fees as required.
- C. Design Build Firm is required to provide staging and MOT plans for review and approval by the City of Fort Lauderdale, Broward County, and FDOT.

#### 1.06 WORK SEQUENCE

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- A. The work shall proceed in a systematic manner so that public inconvenience during construction is minimized.
- B. Design Build Firm shall notify the City of Fort Lauderdale Public Works Department 48 hours prior to beginning construction.
- C. Continuous operation of the City's existing system is of critical importance. Work that requires the temporary shutdown of any existing operations or utilities shall be planned in detail with appropriate scheduling of the work and coordinated with the City or Engineer. The approved schedule for shutdown or restart shall be indicated on the Design Build Firm's Progress Schedule, and advance notice shall be given 48 hours in advance so that the City or Engineer may witness the shutdown, tie-in, and start-up.
- D. All materials and equipment (including emergency equipment) necessary to expedite tie-in of proposed utilities shall be on hand prior to the shutdown of existing services or utilities.
- E. At no time shall the Design Build Firm undertake to close off any lines or open valves or take any other action that would affect the operation of the existing system, except as specifically required by the Drawings and Specifications and after approval is granted by the City. Request approval five (5) working days in advance of the time that interruption of the existing system is required.
- F. A detailed sequence of construction shall be submitted by the Design Build Firm and approved by the City or Engineer before any work is started. The City of Fort Lauderdale reserves the right to make changes to the sequence as necessary to facilitate the work or to minimize any conflict with operations.

### 1.07 USE OF PREMISES

- A. Design Build Firm shall not enter upon private property for any purpose without first coordinating with the City and/or Engineer and securing the permission of the property owner. This requirement will be strictly enforced during all backyard water meter relocations and private plumbing operations to reconnect residential services.
- B. Design Build Firm shall confine construction equipment, the storage of materials and equipment, and the operations of workers to areas permitted by law, ordinances, permits, or the requirements of the Contract documents and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. No storage of materials will be allowed on the site.

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- C. Design Build Firm shall conduct his work in such a manner as to avoid damage to private or public property. Any damage to existing structures or work of any kind, or the interruption of utility service, shall be repaired or restored promptly at no additional expense to the City.
- D. Design Build Firm shall preserve and protect all existing vegetation such as trees, shrubs, and grass on or adjacent to the site that do not reasonably interfere with the construction, as determined by Engineer. Design Build Firm shall be responsible for all unauthorized cutting or damaging of trees and shrubs, including damage due to careless operation of equipment, stockpiling of materials, or tracking of grass by equipment. Design Build Firm shall be liable for or shall be required to replace or restore at no additional cost to the City, all vegetation that is destroyed or damaged.
- E. During the daily progress of the work, Design Build Firm shall keep the premises free from accumulations of waste materials, rubbish, and other debris resulting from work. At the completion of the work, Design Build Firm shall remove all waste materials, rubbish, and debris from and about the premises daily, as well as all tools, appliances, construction equipment and machinery, and surplus materials and shall leave the site clean and ready for occupancy by the City. Design Build Firm shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents.
- F. Design Build Firm shall not load or permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Design Build Firm subject any part of the work or adjacent property to stresses or pressures that will endanger it.

#### **1.08 TEMPORARY CONSTRUCTION UTILITIES AND FACILITIES**

- A. The Design Build Firm shall provide and maintain sanitary facilities for his employees and his Design Build Firms' employees that will comply with the regulations of the local and state departments of environmental protection and as directed by the Engineer.
- B. The City will provide a place of connection for temporary water, if required, for testing at the site, all fees for water service will be paid for by the Design Build Firm. The Design Build Firm shall provide all temporary piping required to bring the water to the point of use and shall remove the piping when no longer needed.
- C. The Design Build Firm will be responsible for making application to the City of Fort Lauderdale to obtain hydrant meters. The Design Build Firm is responsible to provide and install a certified RPZ (backflow preventer).

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The City does not provide certified RPZ's. The Design Build Firm is responsible for all temporary water connections and backflow preventers at locations needed by the Design Build Firm and approved by the Engineer. Maintenance of such is the responsibility of the Design Build Firm.

- D. The Design Build Firm shall be responsible for all costs to obtain a source of electric power for construction. All temporary electric power installation shall meet the construction safety requirements of OSHA, state, and other governing agencies.

### 1.09 PROJECT RECORD DRAWINGS

- A. Engineer will review record drawings prepared and submitted by the Design Build Firm for compliance with specifications.

### 1.010 PRE-CONSTRUCTION CONFERENCE

- A. Within five (5) working days following execution of the Contract but before work at the site starts, the Design Build Firm shall meet with the City of Fort Lauderdale and its Engineer for discussion of scheduling requirements, procedures for handling shop drawings and other submittals, for processing applications for payment, and to establish a working understanding among the parties as to the work.

### 1.011 SAFETY AND ACCESS

- A. The Design Build Firm shall do all work necessary to protect the general public from hazards, including, but not limited to, surface irregularities or unramped grade changes in pedestrian sidewalk or walkway, and trenches or excavations in roadway. Barricades, lanterns, and proper signs shall be furnished in sufficient amount to safeguard the public and the work. All barricades and signs shall be clean and serviceable, in the opinion of the City or Engineer.
- B. The Design Build Firm shall notify all residences and businesses of planned construction at least 5 working days prior to the start of work in the block where they are located. Such notices shall be brochures or door-hangers with sufficient information to describe the extent and duration of the planned work. Notification activities shall be coordinated with the City and Engineer.
- C. Homeowners and business owners shall be provided reasonable access. The Design Build Firm shall provide temporary sidewalks, bridges or driveway access, including safe passage over open excavations as required.

**1.012 ACCIDENT REPORTS**

- A. In addition, the Design Build Firm must promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses. If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the Project Manager.
- B. If a claim is made by anyone against the Design Build Firm or any Design Build Firm on account of any accident, the Design Build Firm shall promptly report the facts in writing to the City and Engineer, giving full details of the claim.

**1.013 FIRE PREVENTION AND PROTECTION**

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

**1.014 ACCESS FOR POLICE, FIRE, SOLID WASTE AND POSTAL SERVICE**

- A. Notify the fire department, police department, and Public Works before closing any street or portion thereof. No closing shall be made without the City's approval of MOT plan. Notify said departments when the streets are again passable for emergency and solid waste vehicles. Do not block off emergency vehicle access to consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, without special written permission from the fire department. Conduct operations with the least interference to fire equipment access, and at no time prevent such access.
- B. Maintain postal service facilities in accordance with the requirements of the U.S. Postal Service.

**1.015 HURRICANE PREPAREDNESS PLAN**

- A. The Design Build Firm's attention is drawn to the possibility of hurricane or severe storm conditions occurring at the site of work during all construction.
- B. Within fourteen (14) days of the date of the Notice to Proceed, the Design Build Firm shall submit to the Engineer and City a Hurricane

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Preparedness Plan. The plan should outline the necessary measures which the Design Build Firm proposes to perform at no additional cost to the Owner in case of a hurricane or severe weather warning.

- C. In the event of inclement weather, or whenever the City shall direct, the Design Build Firm shall, and will, cause Design Build Firms to protect carefully the Work and materials against damage or injury. Work and materials damaged due to inclement weather shall be removed and replaced at the expense of the Design Build Firm.
1. Hurricane Watch: Upon designation of a hurricane watch, the Design Build Firm shall be responsible for storing all loose supplies and equipment on the job site that may pose a danger. In addition, the Design Build Firm shall remove all bulkheads and plugs in pipelines that would impede drainage in the case of flooding. Structures that may be in danger of floatation shall be flooded. The Design Build Firm shall also cooperate with the City in protecting any other structures at the site.
  2. Hurricane Warning: No mobile "temporary facility" under the control of or on the property of the City shall be staffed during a hurricane warning. Design Build Firm facilities meeting these criteria shall be evacuated. Reasonable steps shall be taken to protect all such facilities and their contents from damage and to avoid the facility causing damage to the surroundings. Reasonable steps shall be taken to protect existing improvements from damage and to avoid damage to the surroundings caused by staged materials, equipment, or other facilities related to the project.
- D. The Design Build Firm may be required to backfill excavation depending on the severity of the approaching storm or the expected amount of rainfall. Additionally, erosion protection and inlet protection may also be required by the Owner depending on the site conditions at the time of the Hurricane Watch.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Design Build Firm shall at his own expense furnish all supplies, labor, and facilities necessary to install all materials in a manner satisfactory to Engineer.

## PART 3 - EXECUTION (Not Used)

### END OF SECTION



**SECTION 01010****SUMMARY OF WORK****PART I - GENERAL****1.01 WORK COVERED BY THESE CONTRACT DOCUMENTS**

- A. The CITY has issued this Request for Proposal (RFP) to solicit competitive proposals from a Design Build Firm (DBF) for the design, permitting, and construction of the Pump Station A-16 Upgrade Wastewater Design Criteria Package Project.
- B. A new Federal Court House is proposed at the intersection of SE 11th Street and SE 3rd Avenue located in the City of Fort Lauderdale. Construction of the proposed Federal Court House will impact an existing wastewater pump station (Pump Station A-16), associated 10-inch gravity sewer and 6-inch force main piping, and a 30-inch water main all currently owned and operated by the City of Fort Lauderdale. The project objective is to relocate all CITY owned wastewater related utilities that impact construction of the new Federal Court House on the proposed site. The existing Pump Station A-16 and associated wastewater piping currently on the new Federal Court House site will be abandoned.
- C. Design Build Firm's Duties:
1. In addition to all design and permitting services, the Design Build Firm shall provide and include all costs associated with the following:
    - a. Mobilization and demobilization
    - b. Labor, materials, and equipment
    - c. Tools, construction equipment, and fuel
    - d. Electric, water and utilities required for construction
    - e. Temporary utilities, provisions, and controls
    - f. Freight and sales tax
    - g. Maintenance of traffic
    - h. Surveying, field engineering
    - i. Record drawings
    - j. New water and sewer utilities certifications and required closeout documentation.
    - k. Compliance with all the required project permit conditions
    - l. Construction dewatering
    - m. All project testing including but not limited to trench and roadway restoration, utility testing, equipment startup, and operational testing.

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**1.02 CONTRACTS**

- A. Construct the Work under a Guaranteed Maximum Price.
- B. All Work will be paid per the City's Front-End Documents and Contract Agreement.
- C. Consultants, Subconsultants, and subcontractors (when used) shall work directly for the Design Build Firm.

**1.03 WORK BY OTHERS AND FUTURE WORK**

- A. A separate DCP will be provided by the CITY for all work associated with relocating and abandoning all water related utilities that impact construction of the new Federal Court House on the proposed site.
- B. The conceptual water main relocation to be performed by others is shown on the Conceptual Plans for reference only.
- C. The Owner reserves the right to add to the work in accordance with the Contract Documents.
- D. No work is planned to be performed by the Owner.

**1.04 WORK SEQUENCE**

- A. The following is a proposed sequence of work for the Project. The Design Build Firm is required to submit a proposed project sequence and schedule for review by the City. Steps may be performed concurrently.
  - 1. Coordinate with FPL for pump station electrical service.
  - 2. Site and construct new submersible Pump Station A-16.
  - 3. Construct new wastewater utility improvements.
  - 4. Perform all testing and prepare utilities and pump station to place in service.
  - 5. Connect all new utilities.
  - 6. Decommission, abandon, demolish all impacted utilities and equipment
  - 7. Perform all roadway restoration.
  - 8. Perform finish work, landscaping, site cleanup, etc.
- B. The above items will be discussed at the Pre-Construction Conference. Certain areas may be assigned priority to accommodate Owner's interest.

**1.05 DESIGN BUILD FIRM-FURNISHED PRODUCTS AND RESPONSIBILITIES**

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- A. Products furnished to the site and paid for by Design Build Firm:
1. All products necessary to complete the work described herein these contract documents and specifications.
- B. Design Build Firm's Responsibilities:
1. Review and incorporate Owner-reviewed shop drawings, product data, and samples into the construction of the project.
  2. Prepare, apply for, and obtain all design and construction permits required for project completion.
  3. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
  4. Repair or replace items damaged after receipt.
  5. Arrange and pay for product delivery to site.
  6. Handle, store, install, and delivered products.
  7. Submit claims for transportation damage and replace damaged, defective, or deficient items.
  8. Arrange for manufacturers' warranties, inspections, and service.

#### 1.06 DESIGN BUILD FIRM'S USE OF THE PREMISES

- A. All work shall be within the limits of City of Fort Lauderdale right-of-way. Design Build Firm shall be responsible for maintenance of traffic when working within the public rights of way.
- B. The staging area location is the responsibility of the Design Build Firm but must be coordinated with the City of Fort Lauderdale. The Design Build Firm shall always maintain access to City of Fort Lauderdale facilities. The Design Build Firm shall restore the staging area to an equal or better condition than previously existed upon completion of the work.
- C. The Design Build Firm shall be fully responsible for the safety and security of the construction area including any temporary measures required to maintain its protection. The Design Build Firm will be responsible for any damages or theft incurred to his tools, equipment, machinery, and new work in-place not yet been fully accepted by the Owner.

#### PART 2 – PRODUCTS

- A. All products and materials must comply with the City of Fort Lauderdale Approved Manufacturers List included in Appendix A.

#### PART 3 – EXECUTION (Not Used)

#### END OF SECTION

**SECTION 01050****FIELD ENGINEERING AND SURVEYING****PART 1 - GENERAL****1.01 DESCRIPTION**

- A. Design Build Firm shall provide and pay for field engineering and surveying services required for the project.
- B. Owner's representative will identify existing control points, as required.

**1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE:**

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- B. Section 01010 - Summary of Work
- C. Section 01300 – Submittals
- D. Section 01720 - Project Record Drawings

**1.03 QUALIFICATIONS OF SURVEYOR**

- A. Professional Land Surveyor (PLS) registered in the State of Florida.

**1.04 SURVEY REFERENCE POINTS**

- A. Design Build Firm shall provide benchmarks as required to construct and/or prepare Record Drawings for the Project.
  - . Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- C. Promptly report to Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.

**1.05 PROJECT SURVEY REQUIREMENTS**

- A. Establish lines, grades, and elevations by instrumentation or similar appropriate means utilizing recognized engineering survey practices.

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- B. Horizontal alignment for the proposed construction will be controlled by property lines, easement boundaries, and existing structures. The Design Build Firm shall be responsible to establish reference lines and necessary offsets to establish piping alignment, and equipment and structure location.
- C. Vertical alignment for the proposed construction will be based on the existing grades. The Design Build Firm shall be responsible to establish proposed grades. The grade stakes shall be provided by the Design Build Firm.
- D. Establish a minimum of two permanent bench marks on site, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents.
- E. Periodically verify layouts by same means.
- F. Prior to destruction of existing improvements, record existing grades to be used in reconstruction to assure proper flow of surface water runoff is maintained after restoration.

#### **1.06 PROJECT EASEMENT REQUIREMENTS**

- A. The Design Build Firm is responsible to provide survey/sketch and legal drawings as needed to assist the CITY with obtaining all temporary and/or permanent easements for the installation of pump station and utility work not in the public Right-of-Way. The easement sketch and description shall be prepared by a Florida licensed professional surveyor and shall be in accordance with Fort Lauderdale requirements.

#### **1.07 RECORDS**

- A. Maintain a complete, accurate log of all control and survey work as it progresses.
- B. On completion of project, prepare record drawings in accordance with related specification section.

#### **1.08 SUBMITTALS**

- A. Submit name and address of Surveyor/Engineer to Owner.
- B. On request, submit copies of field notes and documentation verifying the accuracy of the survey work.

#### **1.09 EXAMINATION**

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- A. Design Build Firm is responsible for verifying survey control points prior to initiation of work.
- B. Design Build Firm shall promptly notify Engineer of any discrepancies discovered.

**1.10 QUALITY CONTROL**

- A. Quality control of the Work shall be the Design Build Firm's responsibility and Design Build Firm shall make every effort to produce the best quality work, as specified on the drawings and specifications.
- B. Forty eight (48) hour notification to the Engineer by the Design Build Firm shall be required for all specified field investigations unless otherwise noted.

**PART 2 – PRODUCTS (Not Used)****PART 3 – EXECUTION (Not Used)****END OF SECTION**

**SECTION 01060****REGULATORY REQUIREMENTS****PART 1 - GENERAL****1.01 DESCRIPTION****A. GENERAL**

1. Design Build Firm shall comply with and furnish all items necessary to satisfy any general and specific conditions that are part of the Design Build Firm obtained permits and licenses.
2. Obtain and pay for all permits, easements, and licenses as required for the project.
3. Schedule all inspections and obtain all written approvals of the agencies required by the permits, easements, and licenses.
4. The Design Build Firm shall keep a copy of all permits and easements complete with conditions, attachments, exhibits, and modifications at the work site. The Design Build Firm is responsible for ensuring that the permit conditions are explained to the appropriate construction personnel.

**B. PERMITS BY OWNER**

1. The City has not submitted any permit applications or obtained any permits associated with the design or construction of the Project.
2. It is the responsibility of the DBF as the Project Engineer of Record (EOR) to apply for and obtain all permits as needed to construct the Project.

**C. PERMITS/EASEMENTS BY DESIGN BUILD FIRM**

1. The selected DBF shall provide services in compliance with all regulations and guidelines created by the City of Fort Lauderdale, Florida Department of Transportation, South Florida Water Management District, Broward County Environmental Protection and Growth Management Department, Broward County Highway Construction and Engineering Department, Florida Department of Environmental Protection, U.S. Army Corps of Engineers and the Occupational Safety and Health Administration. These regulations and guidelines are to be followed by the Selected DBF except

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where explicitly described in this document. The most recent editions of the following publications must be used for the completion of the Project:

- a. Broward County Environmental Protection and Growth Management Department – A Consulting Engineer’s Guide for a Wastewater Collection/Transmission System Construction License Application
  - b. Florida Department of Environmental Protection - Division of Water Resource Management Rules and Regulations.
  - c. Florida Building Code
  - d. South Florida Water Management District – Environmental Resource Permit Information Manual
  - e. Federal Highway Administration - Manual on Uniform Traffic Control Devices
  - f. City of Fort Lauderdale Building Department.
  - g. Notice of Intent (NOI) to use the Generic Permit for Stormwater Discharge from Construction Activity, which will include Stormwater Pollution Prevention Plan (SWPPP) as required by F.A.C. 62-621.300(4) and the Environmental Protection Agency (EPA) as part of the National Pollutant Discharge Elimination System (NPDES).
  - h. Dewatering permits and/or any temporary stormwater discharge permits from the South Florida Water Management District and/or Florida Department of Environmental Protection as may be required to execute the project.
2. The Design Build Firm is responsible for obtaining any other permits that may be required by other agencies.
  3. Additional permit information and requirements are included in Sections 3, 7, and 11 of the DCP.
  4. The Design Build Firm shall be responsible for all permitting and application fees associated with these permits.
  5. The Design Build Firm shall conform to the conditions of all required and obtained permits as part of this Contract.



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6. The Design Build Firm is responsible to provide survey/sketch and legal drawings as needed to assist the CITY with obtaining all temporary and/or permanent easements for the installation of all pump station and utility work not in the public Right-of-Way.

D. NOTIFICATIONS

1. City of Fort Lauderdale: The Design Build Firm is required to notify the City of Fort Lauderdale Engineering Department 48 hours prior to initiating construction.
2. Utility Companies: Design Build Firm shall notify the Sunshine State One Call of Florida (SSOCF) service by dialing 811, 48 hours prior to digging for direct bury and 10 day prior to digging or initiating construction of underwater construction activities, as required by Florida Statutes Chapter 556 throughout the duration of the construction project.
3. The Design Build Firm shall give the Engineer not less than seven (7) calendar days notice of the time and place (or places) where he will start the work.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

**SECTION 01090****REFERENCE STANDARDS****PART 1 - GENERAL****1.01 REQUIREMENTS INCLUDED**

- A. Abbreviations and acronyms used in Contract Documents to identify reference standards.

**1.02 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.
- C. For Products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- D. Conform to reference standard by date of issue current on bid date.
- E. Obtain copies of standards when required by the Contract Documents.
- F. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- G. Should specified reference standards conflict with Contract Documents, request clarification from the Engineer before proceeding.
- H. Neither the contractual relationship, duties, nor responsibilities of the parties in Contract nor those of the Engineer shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

**1.03 ABBREVIATIONS, NAMES, AND ADDRESSES OR ORGANIZATIONS**

- A. Obtain copies of reference standards direct from publication source, when needed for proper performance of work, or when required for submittal by Contract Documents.

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- B. The following, as appropriate to project, is a list of referenced standards and their mailing addresses for requesting copies of standards:

AA	Aluminum Association 818 Connecticut Avenue, NW Washington, D.C. 20006
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, NW Washington, D.C. 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 16 <sup>th</sup> Street, NW Washington, D.C., 20036
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
ASME	American Society of Mechanical Engineers 345 East 47 <sup>th</sup> Street New York, NY 10017
ASPA	American Sod Producers' Association Association Building Ninth and Minnesota Hastings, NE 68901
ASSE	American Society of Sanitary Engineers 960 Illuminating Building Cleveland, OH 44113

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ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103
AWS	American Welding Society 2501 NW 7 <sup>th</sup> Street Miami, FL 33125
AWWA	American Water Works Association 6666 W. Quincy Avenue Denver, CO 80235
CDA	Copper Development Association 57 <sup>th</sup> Floor, Chrysler Building 405 Lexington Avenue New York, NY 10017
City	City of Fort Lauderdale Standards for the Construction Standards and Use of the Public Rights of Way and Easements 100 North Andrews Avenue Fort Lauderdale, FL 33301
CLFMI	Chain Link Fence Manufacturers Institute 1101 Connecticut Avenue Washington, D.C. 20036
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle Street, Suite 2110 Chicago, IL 60601
FDOT	Florida Department of Transportation Haydon Burns Building 605 Suwannee Street Tallahassee, FL 32301
FM	Factory Mutual System 1151 Boston-Providence Turnpike Norwood, MA 02062
FS	Federal Specifications General Services Administration Specifications and Information Distribution
NEMA	National Electrical Manufacturers Association 2101 L Street, NW

REFERENCE STANDARDS

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	Washington, D.C. 20037
NFPA	National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210
NFPA	National Forest Products Association 1619 Massachusetts Avenue, NW Washington, D.C. 20036
NSF	National Sanitation Foundation NSF Building 3475 Plymouth Road Ann Arbor, MI 48106
NSWMA	National Solid Waste Management Association 1120 Connecticut Avenue, NW Washington, D.C. 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, D.C. 20203
TCA	Technical Aid Series Construction Specifications Institute 1150 Seventeenth Street, NW Washington, D.C. 20036
UL	Underwriters Laboratories, Inc. 333 Pfingston Road Northbrook, IL 60062

**PART 2 – PRODUCTS (Not Used)****PART 3 – EXECUTION (Not Used)****END OF SECTION**

**SECTION 01150****MEASUREMENT AND PAYMENT****PART 1 GENERAL****1.01 SCOPE OF THIS SECTION**

- A. The following explanation of the Measurement and Payment for the Price Proposal Form items is provided; however, the omission of reference to any item shall not alter the intent of the price Proposal Form or relieve the Design Build Firm of the necessity of constructing a complete project under this Contract.
- B. Payment for the Price Proposal Form items shall include all compensation to be received by the Design Build Firm (DBF) for furnishing all tools, equipment, supplies, materials, and for all labor operations and incidentals appurtenant to the required work, as necessary to complete all work in accordance with requirements of the Contract Documents and including all costs of permits, cost of compliance with the regulations of public agencies having jurisdiction, and costs of all testing. No separate payment will be made for any item that is not specifically set forth in the Price Proposal Form, and all costs shall be included in the Price Proposal Form for the various appurtenances needed to complete all items of work.
- C. Payment for the various items on the Price Proposal Form shall constitute full compensation for the DBF's superintendent at the job site full-time during construction, for furnishing and installing all force main, gravity sewer, and pump station improvements complete in place including but not limited to pipes, fittings, valves, connections to existing pipelines, abandonment of existing pipelines, new submersible pump station with controls, demolition of existing pump station, and bypass pumping. Payment includes all surveying both horizontal and vertical control for construction of the roadways, pump station, pipelines and appurtenances; including protecting and replacing if necessary existing monuments, control points, found iron rods, valves; including all earthwork, horizontal directional drill, trench excavation, removal and disposal of waste, unsuitable and excess material, furnishing and installing pipe bedding material, all backfill and compaction of native material, and dewatering as required; restraint of all utility systems; including providing the water for pressure testing, cleaning the pipe, and disposal of the water as required when completed; site cleanup; all pump station and site restoration, and all improvements incidental to construction for which there are no other bid items; including but not limited to, existing sprinkler systems, and all other work not included in other bid items. No additional payment will be made for proving all project close-out documentation and the furnishing of accurate as-builts.

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- D. Payment shall also include providing the necessary equipment and labor to pothole and verify depths and locations of existing utilities sufficiently ahead of construction to avoid conflicts with the design alignment and grade of structures, culverts, storm drains and exfiltration trenches. Conflicts with utilities shown on the Drawings which result from the DBF's negligence to pothole sufficiently ahead of construction (a minimum of two days ahead of construction of the pipeline) shall be resolved by the DBF at no additional cost to the CITY.
- E. Payment for all bid items shall include completion of each bid item tested and ready for acceptance by the appropriate government agency.
- F. No separate payment for pavement restoration will be made unless specifically shown on the plans or called out in the price Proposal form.
- G. The Design Build Firm requested percent complete for all Lump Sum pay item progress payments and final payment must be coordinated in the field and approved by the Engineer and City prior to payment.

## 1.02 METHOD OF MEASUREMENT

- A. **Measurement of Length:** Unless otherwise specified for the particular items involved, all measurements of distance for items to be paid for on the basis of length shall be taken horizontally or vertically.
- B. **Measurement of Area:** In the measurement of items paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the actual dimensions measured along the surface of the completed work within the neat lines shown or designated. At intersections, the measurement used for length of side area will be measured from the outside edge of the width allowed along the main trench.

## PART 2 - PRODUCTS (Not Used)

## PART 3 – EXECUTION

### 3.01 BID ITEMS - DESIGN

#### A. BID ITEM NO. 1 – DESIGN DEVELOPMENT

**Measurement:** The costs shall include all professional services, additional investigation, existing utility exploration, coordination with the separate water related DBF, and all permitting based upon the activities required by the City and all governing agencies with jurisdiction in the project area for the completion of the project, all in accordance with the Contract

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Documents. Costs shall also include all surveying, stake-out, and as-built drawings based upon the activities required for the construction and close-out of the project, all in accordance with the Contract Documents.

**Payment:** Payment shall be made for professional services, additional investigation, permitting, surveying, stake-out, and as-built drawings at the lump sum price named in the Price Proposal Form. Total payment for design development services shall not exceed the lump sum price named in the Price Proposal Form.

**B. BID ITEM NO. 2 – CONSTRUCTION ADMINISTRATION**

**Measurement:** The costs shall include payment for construction administration services based upon the activities required by the City and all governing agencies with jurisdiction in the project area for the completion of the project, all in accordance with the Contract Documents. Costs shall also include coordination as needed with the separate water related DBF.

**Payment:** Payment shall be made for construction administration services at the lump sum price named in the Price Proposal Form. Total payment for construction administration services shall not exceed the lump sum price named in the Price Proposal Form.

**3.02 BID ITEMS - CONSTRUCTION, GENERAL**

**A. BID ITEM NO. 3 – MOBILIZATION**

**Measurement:** Work as specified in this section shall consist of work preparatory to actual construction at the site. It shall include, but not be limited to, movement of personnel, equipment, supplies, and incidentals to the project site, and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, sanitary and other facilities as required by these Specifications and state and local laws and regulations. This cost should include the construction of two (2) project signs that shall be displayed at approaches to the project area. The intent is that the signs will be freestanding. The sign shall display on both sides the project name, City Logo, elected officials, and contact information. The costs of any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials, shall be included in this section. Also included in this section will be all costs associated with meetings and coordination with the Owner and Engineer for the purpose of discussing project progress.

**Payment:** Payment shall be made as a lump sum quantity in accordance with the following schedule and the contract documents:



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<u>Percentage Contract Amount Earned</u>	<u>Allowable Percentage of Lump Sum Price</u>
5%	25%
10%	50%
25%	75%
50%	100%

The standard retainage will be applied to these allowances.

**B. BID ITEM NO. 4 – MAINTENANCE OF TRAFFIC**

**Measurement:** The cost shall include all services associated with traffic control on streets and roadways impacted by this project. Design Build Firm shall provide traffic control plans as needed prepared by a certified ATSSA certified technician and obtain MOT permit from the City of Fort Lauderdale with all required signatories. Where the repair is located on streets under the jurisdiction of FDOT or Broward County, or on City streets with a classification of collector street or higher, the Design Build Firm is required to provide all information, obtain all permits, and comply with all requirements of the authority having jurisdiction.

**Payment:** Payment shall be made as a lump sum quantity in accordance with the contract documents and includes all traffic control, vehicular and pedestrian access, and MOT maintenance to mitigate traffic impacts and/or always reduce inconvenience to the travelling public. Costs shall also include cones, signage, types of barriers and arrow boards as deemed necessary by permitting agencies. All crosswalks and sidewalks shall remain open and free of obstructions. Temporary painting for roadways and crosswalks shall be maintained throughout the project. Costs shall include the use of flagmen.

**C. BID ITEM NO. 5 – BYPASS PUMPING**

**Measurement:** The cost shall include all required pipe, hose, plugs, and pump to re-route wastewater during the relocation of Pump Station A-16, force main installation, and gravity sewer installation. Dependent on the location, the Design Build Firm may be required to build an enclosure around pumps or use an electric pump as a primary bypass for noise abatement issues. On sewer lines with minimum flow, as authorized by the Owner, the upstream manhole may be plugged, and wastewater pumped out with a contractor supplied vacuum truck. Bypass pumping activities must be manned 24/7 by the Design Build Firm. Response time must be within 10 minutes if a high-water alarm is triggered to avoid sewer overflows. All costs associated with manning bypass pumping activities,

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responding to high water alarms, and sewer overflow clean up are the responsibility of the Design Build Firm.

**Payment:** Payment shall be made as a lump sum quantity in accordance with the contract and includes all labor, equipment, material, shop drawings for approval, location and coordination of all existing utilities prior to construction, bypass pumping system installation, fittings, connection to existing system, restraining devices, clearing, grubbing, excavation and back fill, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, and repair or replacement of existing utilities impacted or damaged during construction for a complete bypass pumping system installation. Any item not specified shall be considered incidental to the work.

**D. BID ITEM NO. 6 – SITE RESTORATION**

**Measurement:** The cost shall include all construction requirements for project restoration not included as part of a separate bid item so that all areas disturbed or damaged during construction shall be installed as shown on the plans or restored to conditions existing prior to the work.

**Payment:** Payment for all site restoration work shall be made at the lump sum price and shall include all materials, labor and equipment necessary to perform site restoration work including grading, milling, asphalt over restored utility trench, asphalt in milled areas, base material, limerock, and asphalt in new paved areas, new or restored concrete sidewalk, curbing, valley gutter, driveways, bollards, planting, sodding, landscape, irrigation, lighting, temporary and permanent pavement markings/stripping, new and impacted signage, clean-up, and any other work required for project completion and acceptance. Any trench or pump station site restoration costs referenced as part of other bid items should be included in those bid items accordingly.

Restoration other than or in addition to what is indicated by the plans, specifications, and defined herein will be considered incidental to the construction and the costs of this incidental restoration should be included in the cost of project.

**3.03 BID ITEMS - CONSTRUCTION, FORCE MAIN**

**A. BID ITEM NO. 7 – ABANDON EXISTING 6” FORCE MAIN, CUT AND CAP**

**Measurement:** The cost shall include abandoning all existing 6-inch force main impacting the proposed Federal Court House site and as shown on

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the conceptual plans. Abandonment includes cutting and capping both ends of each pipe.

**Payment:** Payment for this work shall be made at the unit cost basis per utility cap and shall include, but not be limited to, all labor, equipment, material, location/coordination of existing utility, restraining devices, clearing, grubbing, excavation and back fill, compaction, disposal of undesirable material, new fill, grading, safety, dust/erosion, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during the cutting and capping process.

**B. BID ITEM NO. 8 – INSTALL 12” HDPE FORCE MAIN, HORIZONTAL DIRECTIONAL DRILL (HDD)**

**Measurement:** The cost shall include material and work associated with installing 12” HDPE force main piping utilizing horizontal directional drill methodology as shown on the plans on a lineal foot basis in accordance with the unit prices contained in the proposal.

**Payment:** Payment for this work shall be made at the unit cost basis and shall include, but not be limited to, all labor, equipment, material, location/coordination of all existing utilities, coordination with the separate water related DBF, Work Plan as specified, proposed piping layout, directional drilling equipment, drilling fluid, guidance system, HDEP pipe, HDPE fittings/adaptors, force main installation, system connections, restraining devices, clearing, grubbing, excavation and back fill, sheeting and shoring as needed, dewatering, compaction, disposal of undesirable material, new fill, grading, entry/exit pit and pipe laydown area restoration, safety, dust/erosion, pressure testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for a complete HDD force main installation. Costs shall also include all coordination, permitting, and permit compliance within the rights-of-way of Broward County, City of Fort Lauderdale, Florida Department of Environmental Protection, South Florida Water Management District, or other governing authorities having jurisdiction.

**C. BID ITEM NO. 9 – INSTALL 12” C900 PVD PIPE/DIP PIPE/DIP FITTINGS FOR HDD FORCE MAIN CONNECTION, OPEN CUT**

**Measurement:** The cost shall include material and work associated with installing 12” C900 PVC force main piping with fittings as shown on the plans on a lineal foot basis in accordance with the unit prices contained in the proposal.

**Payment:** Payment for this work shall be made at the unit cost basis and shall include all labor, equipment, material, location and coordination of all

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existing utilities prior to open cut construction, force main installation, DIP fittings with protective coatings, system connections, restraining devices, clearing, grubbing, excavation and back fill, sheeting and shoring as needed, dewatering, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, pressure testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for a complete force main installation.

**D. BID ITEM NO. 10 – INSTALL 12” PLUG VALVES**

**Measurement:** The cost shall include material and work associated with installing 12” plug valves as shown on the plans in accordance with the unit prices contained in the proposal.

**Payment:** Payment for this work shall be made at the unit cost basis and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, valve installation, valve box installation, concrete pads, extension nuts, restraining devices, fittings, clearing, grubbing, excavation and back fill, dewatering, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, pressure testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for complete a complete plug valve installation.

**E. BID ITEM NO. 11 – INSTALL WASTEWATER AIR RELEASE VALVE WITH VAULT**

**Measurement:** The cost shall include material and work associated with installing an air release valve as shown on the plans or as determined in the field in accordance with the unit prices contained in the proposal. The air release valves shall be for use with wastewater, automatic operation type and installed in a concrete vault with manhole cover as specified.

**Payment:** Payment for this work shall be made at the unit cost basis and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, automatic air release valve assembly installation, corporation stops, pipe, fittings, couplings, taps, valve vault/box, connection to force main, clearing, grubbing, excavation and back fill, dewatering, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, pressure testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for a complete air release valve assembly installation.

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**F. BID ITEM NO. 12 – INSTALL 36” X 12” TAPPING SLEEVE AND VALVE**

**Measurement:** The cost shall include material and work associated with installing a 36” x 12” tapping sleeve and valve for connection to an existing force main as shown on the plans in accordance with the unit prices contained in the proposal.

**Payment:** Payment for this work shall be made at the unit cost basis and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, field verification of all required dimensions, 36” x 12” tapping sleeve and valve, pipe sleeve installation, tapping valve installation and tapping procedure, valve box installation, extension nut, restraining devices, fittings, clearing, grubbing, excavation and back fill, dewatering, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, pressure testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for complete a complete tapping valve and sleeve installation. This process will require close coordination with the Owner and Engineer.

**3.04 BID ITEMS - CONSTRUCTION, GRAVITY SEWER**

**A. BID ITEM NO. 13 – ABANDON EXISTING 10” SANITARY SEWER, CUT AND CAP**

**Measurement:** The cost shall include abandoning all existing 10-inch sanitary sewer impacting the proposed Federal Court House site and as shown on the conceptual plans. Abandonment includes cutting and capping both ends of each pipe.

**Payment:** Payment for this work shall be made at the unit cost basis per utility cap and shall include, but not be limited to, all labor, equipment, material, location/coordination of existing utility, restraining devices, clearing, grubbing, excavation and back fill, compaction, disposal of undesirable material, new fill, grading, safety, dust/erosion, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during the cutting and capping process.

**B. BID ITEM NO. 14 – MODIFY EXISTING SANITARY MANHOLE/CAP EXISTING 6” FORCE MAIN CONNECTION**

**Measurement:** The cost shall include modification of an existing sanitary manhole to plug/cap an existing 6-inch force main connection to be abandoned.

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**Payment:** Payment for this work shall be made at the lump sum price for sanitary manhole modifications to cap/plug an existing opening to be abandoned. Work shall include, but not be limited to, all labor, equipment, material, location/coordination of existing utility, restraining devices, cleaning, removal of any wastewater in a legal manner, clearing, grubbing, excavation and back fill, compaction, disposal of undesirable material, new fill, grading, safety, dust/erosion, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during the sanitary manhole modification process.

**C. BID ITEM NO. 15 – MODIFY EXISTING SANITARY MANHOLE/CAP EXISTING 10” SANITARY SEWER CONNECTION/NEW 18” SANITARY SEWER CONNECTION.**

**Measurement:** The cost shall include modification of an existing sanitary manhole to plug/cap an existing 10” sanitary sewer force main connection to be abandoned. Costs shall also include modification, cleaning, evaluation, and coating of the existing sanitary manhole for a new connection to the proposed 18” sanitary sewer.

**Payment:** Payment for this work shall be made at the lump sum price for sanitary manhole modifications to cap/plug an existing opening to be abandoned as well as connection to the proposed 18-inch sanitary sewer system. Work shall include, but not be limited to, all labor, equipment, material, location/coordination of existing utility, restraining devices, cleaning, removal of any wastewater in a legal manner, sand blasting, pressure washing, cleaning, sewer connection modifications, installing invert flow channels, coating the sanitary manhole, clearing, grubbing, excavation and back fill, compaction, disposal of undesirable material, new fill, grading, safety, dust/erosion, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during the sanitary manhole modification process. Costs shall also include equipment, labor, and materials required to perform minor structural improvements such as concrete and rebar repairs.

**D. BID ITEM NO. 16 – ABANDON EXISTING SANITARY MANHOLE**

**Measurement:** The cost shall include abandonment of existing sanitary manholes impacting the proposed Federal Court House site and as shown on the conceptual plans. Abandonment includes cleaning, disconnection, demolition, plugging/capping all inverts, and filling the remaining structure with sand.

**Payment:** Payment for this work shall be made at the unit cost basis per abandoned sanitary manhole and shall include, but not be limited to, all labor, equipment, material, cleaning, removal of any wastewater in a legal

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manner, disinfection, excavation, removal of existing structure a minimum of 4-feet below grade, cutting hole in the bottom of the manhole, filling the remaining structure with clean sand, and backfill as required for a complete and accepted abandoned sanitary manhole.

**E. BID ITEM NO. 17 – INSTALL 18” PVC SANITARY SEWER**

**Measurement:** The cost shall include material and work associated with installing 18” PVC, gravity sewer as shown on the plans on a lineal foot basis in accordance with the unit prices contained in the proposal.

**Payment:** Payment for this work shall be made at the unit cost basis and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, gravity sewer installation, connection to existing/proposed system, pipe couplings, clearing, grubbing, excavation and back fill, sheeting and shoring as needed, dewatering, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for a complete gravity sanitary sewer installation.

**F. BID ITEM NO. 18 – INSTALL SANITARY SEWER MANHOLE**

**Measurement:** The unit price shall include work associated with installing new sanitary manholes including but limited to manhole structure, manhole covers and frames, invert channels, and accessories as shown on the plans.

**Payment:** Payment shall be at the contract unit price for the installation of sanitary manholes and shall include all costs for labor, equipment, materials, bypass pumping, connection to proposed/existing sanitary sewer system, grouting, interior and exterior protective coatings, clearing, grubbing, excavation and back fill, dewatering, compaction, disposal of undesirable material, new fill, grading, trench restoration, testing, utility cover adjustment, survey layout, record drawings, and repair or replacement of existing utilities impacted or damaged during construction for a complete sanitary manhole installation. Any item not specified shall be considered incidental to the work.

**3.05 BID ITEMS - CONSTRUCTION, PUMP STATION**

**A. BID ITEM NO. 19 – DEMOLITION OF PUMP STATION DRY PIT, WET WELL STRUCTURES, AND EQUIPMENT**

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**Measurement:** The cost shall include demolition, removal and salvage/disposal of all existing equipment, materials, controls, electrical system, and structures associated with the existing Pump station A-16 as shown on the conceptual drawings.

**Payment:** Payment for this work shall be made at the lump sum price and shall include, but not be limited to, all labor, equipment, and materials needed to salvage/dispose of all existing materials and equipment, cleaning and removal of any wastewater in a legal manner, disinfection, excavation, removal of existing structure a minimum of 4-feet below grade, cutting holes in the bottom of existing structures, filling the remaining structures with clean sand as indicated on the conceptual drawings. Costs shall include all efforts and costs associated with decommissioning the existing wastewater pump station as required by any jurisdiction having authority. Prior to disposal, the Design Build Firm will coordinate with Owner on any items to be recycled, salvaged or kept by the City.

**B. BID ITEM NO. 20 – INSTALL NEW 12’ ID, DUPLEX SUBMERSIBLE PUMP STATION WITH VALVE VAULT, 45 HP PUMPS**

**Measurement:** The cost shall include work associated with installing new submersible wastewater pump station including but not limited to wetwell, valve vault, submersible pumps, all valves, piping, fittings, odor control system, pump station accessories, water service, water meter, and backflow preventer as shown of the conceptual drawings.

**Payment:** Payment for this work shall be made at the lump sum price and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, pump station installation, connection to proposed sanitary sewer and force main systems, system restraining, concrete, clearing, grubbing, excavation and back fill, sheeting and shoring as needed, dewatering, compaction, disposal of undesirable material, new fill, grading, safety, dust/erosion control, survey layout, asbuilt drawings, repair or replacement of existing utilities impacted or damaged during construction, operation and maintenance manuals, and training for a complete wastewater pump station installation. Any item not specified shall be considered incidental to the work.

**C. BID ITEM NO. 21 – INSTALL NEW MAGNETIC FLOW METER MANHOLE ASSEMBLY**

**Measurement:** The unit price shall include work associated with installing a new magnetic wastewater flow meter manhole assembly with bypass piping, fittings, three (3) 12” valves, and accessories as shown on the conceptual drawings.



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**Payment:** Payment for this work shall be made at the lump sum price and shall include all costs for labor, equipment, and materials required to construct the magnetic flow meter manhole assembly including magnetic wastewater flow meter, piping, bypass piping, three (3) 12" valves, fittings, manhole structure, frame and cover, connection to proposed force main, grouting, interior and exterior protective coatings, clearing, grubbing, excavation and back fill, dewatering, compaction, disposal of undesirable material, new fill, grading, utility cover adjustment, survey layout, asbuilt drawings, operation and maintenance manuals, start-up services/testing, training, and any other items required for a complete magnetic flow meter manhole assembly installation.

**D. BID ITEM NO. 22 – PUMP STATION SITE IMPROVEMENTS**

**Measurement:** The cost shall include all construction requirements for the pump station site improvements as shown on the conceptual plans.

**Payment:** Payment for the pump station site improvements shall be made at the lump sum price and shall include all materials, labor and equipment necessary to perform site improvement work including but not limited to, clearing and grubbing, removal of existing trees and vegetation, grading, base material, limerock, and asphalt for new driveway, security fence, concrete work, new or restored concrete sidewalk, curbing, bollards, planting, sodding, landscape, irrigation, lighting, temporary and permanent pavement markings/stripping, new and impacted signage, clean-up, and any other work required for completion and acceptance of the pump station site. Any general site restoration costs referenced as part of other bid items should be included in those bid items accordingly.

**E. BID ITEM NO. 23 – INSTALL NEW ELECTRICAL SERVICE**

**Measurement:** The cost shall include material and work associated with installing a new electrical service including but not limited to drop connection, conduit, pullboxes, wiring, trenching and backfill, and grounding. Cost shall include all work required to coordinate and obtain temporary or permanent easements as needed for the new electrical service.

**Payment:** Payment for installation of a new electrical service shall be made at the lump sum price and shall include all labor, materials, equipment, and all terminations and tie-in at the control panel for a complete electrical service/distribution system. Cost shall also include coordination with FPL and the Owner as well as any fees charged by FPL for the new electrical service.

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**F. BID ITEM NO. 24 – INSTALL NEW CONTROL PANEL SYSTEM AND ELECTRICAL PUMP STATION COMPONENTS**

**Measurement:** The cost shall include material and work associated with installing a new control panel system and electrical components for the proposed pump station, all instrumentation, wastewater flow meter and pressure monitoring systems as shown on the conceptual drawings.

**Payment:** Payment for this work shall be made at a lump sum cost and shall include all labor, equipment, materials, location and coordination of all existing utilities prior to construction, lift station control panel, bubbler system and other level and pressure instruments, equipment rack, concrete pad, power, controls and instrumentation wiring, wastewater flow meter electrical, conduit, concrete work, clearing, grubbing, excavation and back fill, compaction, disposal of undesirable material, new fill, grading, safety, dust/erosion control, survey layout, asbuilt drawings, repair or replacement of existing utilities impacted or damaged during construction, operation and maintenance manuals, start-up/testing, and training for a complete control panel system.

**3.06 BID ITEMS - PERMIT FEE AND TESTING ALLOWANCE**

**A. BID ITEM NO. 25 – PERMIT FEE AND TESTING ALLOWANCE**

**Measurement:** The cost shall include a fixed amount for permit fee and testing costs as shown on the Price Proposal Form. Permit fees and testing costs will be based upon the actual fees/costs required by the DBF from the various agencies having jurisdiction and actual testing required for construction of the project, all in accordance with the Contract Documents. The allowance amounts shown on the Price Proposal Form are estimates of the permit fees and the testing costs required for the project and is a cost pass through item. The DBF shall produce documentation upon request verifying actual cost.

**Payment:** Use of the allocation account is subject to review and approval by the City. At the closeout of contract, monies remaining in the allowance account will be credited to the City by change order. Because payment for permit fees will be paid as part of this bid item, payment for permit fees will not be paid as part of Mobilization/Demobilization.

**END OF SECTION**

**SECTION 01152****APPLICATIONS FOR PAYMENT****PART 1 - GENERAL****1.01 REQUIREMENTS INCLUDED**

Submit Applications for Payment to Engineer in accordance with the schedule established by Conditions of the contract and Agreement between Owner and Design Build Firm.

**1.02 RELATED REQUIREMENTS**

- A. In other parts of the Construction Documents:
  - 1. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section
  - 2. Agreement between Owner and Design Build Firm
  - 3. General Conditions and Terms of the Contract
  
- B. Specified in Other Sections:
  - 1. Section 01010: Summary of Work
  - 2. Section 01700: Contract Closeout

**1.03 FORMAT AND DATA REQUIRED**

- A. Submit itemized applications typed in a format approved by Engineer. All applications for payment must be numbered, dated, and signed by the Design Build Firm.
  
- B. Provide itemized data on payment application (format, schedules, line items and values accepted by Engineer).
  
- C. Percent complete for Lump Sum pay items.

**1.04 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT**

- A. Application Form:
  - 1. Fill in required information, including that for Change Orders executed prior to the date of submittal of application
  - 2. Fill in summary of dollar values

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3. Execute certification with the signature of a responsible officer of the contract firm
4. Have resident project representative review and sign application prior to submission to Engineer
5. Include substantiating data as needed.

### 1.05 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the Owner or the Engineer requires substantiating data, Design Build Firm shall submit suitable information, with a cover letter identifying:
  1. Project
  2. Application number and date
  3. Detailed list of enclosures
  4. For stored products:
    - a. Item number and identification
    - b. Description of specific material
- B. Submit one copy of data and cover letter for each copy of application.
- C. Substantiating data for progress payments includes, but is not limited to, the following items:
  1. Project schedule updates
  2. Design Build Firm certification
  3. Partial releases of lien
  4. Construction/dewatering permits
  5. Applicable testing results/data
  6. Equipment start-up test reports
  7. Shop drawing log
  8. Red lined as-builts reflecting project changes
  9. Stored materials with supporting documentation
- D. The Design Build Firm requested percent complete for all Lump Sum pay item progress payments must be coordinated in the field and approved by the Engineer and City prior to payment.
- E. Only one application will be acceptable in any one month.

### 1.06 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Application Form:

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1. Fill in required information, including that for Change Orders executed prior to the date of submittal of application
  2. Fill in summary of dollar values
  3. Execute certification with the signature of a responsible officer of the contract firm
  4. Have resident project representative review and sign application prior to submission to Engineer
  5. Include substantiating data as needed.
- B. Substantiating data for final payments includes, but is not limited to, the following items:
1. Final Design Build Firm certification/affidavits
  2. Final release of lien
  3. Final testing certifications
  4. Confirmation of all permit closures
  5. Final as-builts/record drawings signed and sealed
  6. Maintenance and operation instructions
  7. Warranties/guarantees
- C. Only one application will be acceptable in any one month.

**1.07 SUBMITTAL PROCEDURE**

- A. Submit Applications for Payment to Engineer at the time stipulated in the Agreement.
- B. Number: Four copies of each progress Application.
- C. When Engineer finds the Application properly completed and correct, he will transmit the applications for payment to the Owner.

**PART 2 – PRODUCTS (Not Used)****PART 3 – EXECUTION (Not Used)****END OF SECTION**

**SECTION 01153****CHANGE ORDER PROCEDURES****PART 1 - GENERAL****1.01 REQUIREMENTS INCLUDE**

- A. Promptly implement Change Order Procedures
  - 1. Provide full written data required to evaluate changes.
  - 2. Maintain detailed records of work done on a time-and-material/force account basis.
  - 3. Provide full documentation to Engineer on request.
- B. Designate in writing the member of Design Build Firm's organization:
  - 1. Who is authorized to accept changes in the Work.
  - 2. Who is responsible for informing others in the Design Build Firm's employ of the authorization of changes in the Work.
- C. Owner will designate in writing the person who is authorized to execute Change Orders.

**1.02 RELATED REQUIREMENTS**

- A. The amount of established unit prices, if used.
- B. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- C. Terms and Conditions of the Contract:
  - 1. Methods of determining cost or credit to Owner resulting from changes in Work made on a time-and-materials basis.
  - 2. Design Build Firm's claims for additional costs.
- D. Section 01152: Applications for Payment
- E. Section 01300: Submittals and Progress Schedules
- F. Section 01720: Project Record Drawings

**1.03 PRELIMINARY PROCEDURES**

- A. Owner or Engineer may initiate changes by submitting a proposal Request to Design Build Firm. Request will include the following:
1. Detailed description of the Change, Products, and location of the change in the Project.
  2. Supplementary or revised Drawings and Specifications.
  3. The projected time span for making the change, and a specific statement as to whether overtime work is, or is not, authorized.
  4. A specific period of time during which the requested price will be considered valid.
  5. Such request is for information only, and is not an instruction to execute the changes, nor to stop work in progress.
- B. Design Build Firm may initiate changes by submitting a written notice to Engineer, containing:
1. Description of the proposed changes
  2. Statement of the reason for making the changes.
  3. Statement of the effect on the Contract Sum and the Contract Time.
  4. Statement of the effect on the work of separate Design Build Firms.
  5. Documentation supporting any changes in Contract Sum or Contract Time, as appropriate.

**1.04 CONSTRUCTION CHANGE AUTHORIZATION**

- A. In lieu of Proposal Request, Engineer may issue a "Construction Change Directive" (CCD) for Design Build Firm to proceed with a change for subsequent inclusion in a Change Order.
- B. Authorization will describe changes in the work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- C. Owner and Engineer will sign and date the CCD as authorization for the Design Build Firm to proceed with the Changes.

**1.05 DOCUMENTATION OF PROPOSALS AND CLAIMS**

- A. Support each quotation for a lump sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow Engineer to evaluate the quotation.

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- B. On request, provide additional data to support time and cost computation including the following:
1. Labor required.
  2. Equipment required.
  3. Products required:
    - a. Recommended source of purchase and unit cost.
    - b. Quantities required.
  4. Taxes, insurance bonds.
  5. Credit for work deleted from Contract, similarly documented.
  6. Overhead and profit.
  7. Justification for any change in Contract Time.
- C. Support each claim for additional costs, and for work done on a time-and-material / force account basis, with documentation as required for a lump sum proposal, plus the following additional information:
1. Name of the Owner's authorization agent who ordered the work, and date of the order.
  2. Dates and time work performed, and by whom.
  3. Time record, summary of hours worked, and hourly rates paid.
  4. Receipts and invoices for:
    - a. Equipment used, listing dates and times of use.
    - b. Products used, listing quantities.
    - c. Subcontracts.
- D. Document requests for substitutions for Products as specified in Section 01600.

**1.06 PREPARATION OF CHANGE ORDERS**

- A. Engineer will prepare each Change Order.
- B. Form: Change Order format provided in the Contract Documents.
- C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of change.
- D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.



**1.07 LUMP SUM / FIXED PRICE CHANGE ORDER**

- A. Content of Change Orders will be based on either:
1. Engineer's Proposal Request and Design Build Firm's responsible Proposal as mutually agreed upon between Owner and Design Build Firm.
  2. Design Build Firm's Proposal for a change, as recommended by Engineer.
- B. Owner and Engineer will sign and date the Change Order as authorization for the Design Build Firm to proceed with the changes.
- C. Design Build Firm shall sign and date the Change Order to indicate agreement with the terms therein.

**1.08 UNIT PRICE CHANGE ORDER**

- A. Content of Change Orders will be based on, either:
1. Engineer definition of the scope of the required changes.
  2. Design Build Firm's Proposal for a change, as recommended by Engineer.
  3. Survey of completed work
- B. The amount of the unit prices shall be:
1. Those stated in the Agreement.
  2. Those mutually agreed upon between Owner and Design Build Firm.
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
1. Owner and Engineer will sign and date the Change Order as authorization for Design Build Firm to proceed with the changes.
  2. Design Build Firm shall sign and date the Change Order to indicate agreement with the terms therein.
- D. When quantities of the items cannot be determined prior to start of the work:

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1. Engineer or Owner will issue a Change Order directing Design Build Firm to proceed with the change on the basis of unit prices and will cite the applicable unit prices.
2. At completion of the change, Engineer will determine the cost of such work based on the unit prices and quantities used.
  - a. Design Build Firm shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
3. Engineer will sign and date a second Change Order to establish the change in Contract Sum and in Contract Time.
4. Owner and Design Build Firm will sign and date the second Change Order to indicate their agreement with the terms therein.

**1.09 CORRELATION WITH DESIGN BUILD FIRM'S SUBMITTALS**

- A. Design Build Firm shall periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Contract Sum.
- B. Design Build Firm shall periodically revise the Construction Schedule to reflect each change in Contract Time.
  1. Revise sub-schedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

**SECTION 01200****PROJECT MEETINGS****PART 1 – GENERAL****1.01 DESCRIPTION**

- A. Owner shall schedule and administer a general preconstruction meeting, periodic progress meetings, and specially called meetings throughout the progress of the work. Owner/Engineer shall:
1. Distribute written notice of each meeting.
  2. Make physical arrangements for meetings.
  3. Preside at meetings.
  4. Record the minutes, include all significant proceedings and decisions.
  5. Reproduce and distribute copies of minutes:
    - a. To all participants in the meeting.
    - b. To all parties affected by decisions made at the meeting.
- B. Representatives of Design Build Firm, Design Build Firm's consultant, subconsultants, subcontractors, and suppliers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.

**1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE**

- A. Section 01010 - Summary of Work
- B. Section 01060 – Regulatory Requirements and Notifications

**1.03 PRE-CONSTRUCTION MEETING**

- A. To be held prior to the Notice to Proceed.
- B. Location: The project site, or as designated by the Owner/Engineer.
- C. Attendance:
1. Owner's Representative
  2. Engineer's Representative
  3. Design Build Firm
  4. Design Build Firm's Superintendent
  5. Design Build Firm's Consultant, subcontractors, and subconsultants
  6. Others as appropriate

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## D. Agenda:

1. Record of Attendance.
2. Project Summary Description.
3. Local Utilities to be affected.
  - a. Water lines
  - b. Sewer lines
  - c. Storm lines
  - d. Gas lines
  - e. Telephone lines
  - f. Cable TV lines
  - g. Electric lines
  - h. Roadways
  - i. Waterways
4. Design Build Firm Responsibilities:
  - a. Start date
  - b. Completion date
  - c. Work schedule
  - d. Notification Requirements
  - e. Regulatory Permit Requirements
  - f. Testing
  - g. Space utilization
  - h. Rights-of-Way occupancy
  - i. Progress Meetings
  - j. Progress Payment Application
  - k. As-builts (Records/Drawings)
  - l. Photographs
  - m. Shop drawings
  - n. Design Build Firm's team members
  - o. Project coordination
  - p. Operation and maintenance manuals
5. Owner Responsibilities:
  - a. Monthly meetings
  - b. Special meetings
  - c. Partial and final payment
  - d. Change Orders
  - e. Public announcements and public relations
  - f. Project acceptance
6. Engineer Responsibilities:

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- a. Technical representative of Owner
  - b. Interpreter of contract documents
  - c. Periodic inspections of job progress
  - d. Reviews partial and final payment applications
  - e. Reviews shop drawings
  - f. Reviews record drawings
  - g. Performs final inspection and issues certificate of completion
7. Resident Inspector Responsibilities:
- a. Owner's representative on site
  - b. Review materials and work and reports any deficiencies to Owner/Engineer
  - c. Reviews applications for payment
  - d. Works with Design Build Firm on public notification of work items
  - e. Attends progress meetings
  - f. Observes testing work
  - g. Maintains daily diary of work tasks
  - h. Furnishes reports to Owner/Engineer as deemed advisable

**1.04 PROGRESS MEETINGS**

- A. Hold periodic meetings as required by progress of the work.
- B. Location of the meetings: Project site, or as designated by the Owner or Engineer.
- C. Attendance:
  1. Owner's Representative
  2. Engineer's Representative
  3. Design Build Firm representatives as appropriate
  4. Suppliers as appropriate

**1.05 EMERGENCY MEETINGS**

- A. May be called by Owner, Engineer or Design Build Firm with a minimum of three hours notice to resolve conditions of an emergency nature.

**PART 2 – PRODUCTS (Not Used)****PART 3 – EXECUTION (Not Used)****END OF SECTION**

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## **SECTION 01300**

### **SUBMITTALS AND PROGRESS SCHEDULES**

#### **PART 1 - GENERAL**

##### **1.01 WORK INCLUDED**

- A. Submit, to the Owner and Engineer as applicable, shop drawings, estimated construction progress schedule, project data and samples required by specification sections.
- B. All products and materials must comply with the City of Fort Lauderdale Approved Manufacturers List included in Appendix A.

##### **1.02 RELATED WORK**

- A. Section 01010: Summary of Work

##### **1.03 SCHEDULES**

- A. Promptly after award of contract, prepare and submit to the Engineer estimated construction progress schedules for the work, including a separate schedule listing dates for submission and dates reviewed shop drawings, project data and samples will be needed for each product.

##### **1.04 FORM OF SCHEDULES**

- A. Prepare schedules in suitable format with dated schedule printout. A horizontal bar chart should be used as additional illustration and for revised progress schedules.
  - 1. Provide separate horizontal bar for each trade or operation
  - 2. Horizontal time scale: Identify the first work day of each week.
  - 3. Scale and spacing: To allow space for notations and future revisions.
  - 4. Minimum sheet size: 11" x 17"
- B. Format of listings: The chronological order of the start of each item of work.
- C. Identification of listings: By major specification section numbers.

##### **1.05 PROGRESS REVISIONS**

- A. Indicate progress of each activity to date of submission of schedule.

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- B. Show changes occurring since previous submission of schedule.
  - 1. Major changes in scope.
  - 2. Activities modified since previous submission.
  - 3. Revised projections of progress and completion.
  - 4. Other identifiable changes.
  
- C. Provide a narrative report as needed to define:
  - 1. Problem areas, anticipated delays, and the impact on the schedule.
  - 2. Corrective action recommended, and its effect.
  - 3. The effect of changes on schedules of other Design Build Firms working in the area.

### 1.06 SUBMISSIONS

- A. Submit initial schedules within 7 days after award of Contract.
  - 1. Engineer will review schedules with Owner and return review copy.
  - 2. If required, resubmit within 2 days after return of review copy.
  
- B. Submit updated progress schedules with each application for payment.

### 1.07 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
  - 1. Job site file.
  - 2. Design Build Firm.
  - 3. Other concerned parties.
  
- B. Instruct recipients to report promptly to the Design Build Firm, in writing, any problems anticipated by the projections shown in the schedules.

## PART 2 - PRODUCTS

### 2.01 SHOP DRAWINGS

- A. Original drawings, prepared by Design Build Firm, Supplier or Distributor, which illustrate some portion of the Work; showing fabrication, layout, setting or erection details including, but not limited to the following:
  - 1. Pumps and all other rotating equipment
  - 2. Mechanical equipment
  - 3. Valves and appurtenances (w/specific locations)

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4. Piping and fittings (w/specific locations)
  5. Electrical wiring diagrams
  6. Panel fabrication drawings
  7. Instrumentation
  8. Concrete mix designs (with specific locations), grouts, etc.
  9. Precast structures
  10. Structural metal fabrication drawings
  11. Paintings, coatings, liners, etc.
  12. Electrical and control equipment and materials
  13. Louvers, fans, and all ventilation equipment
  14. Asphalt and base material
  15. Dewatering plans
  16. Horizontal directional drill plans
  17. Operation and maintenance manuals
- B. Shop drawings shall be prepared by a qualified detailer.
- C. Identify details by reference to sheet and detail numbers shown on Contract Drawings.

## 2.02 PROJECT DATA

- A. Manufacturer's standard schematic drawings
1. Modify drawings to delete information which is not applicable to project.
  2. Supplement standard information to provide additional information application to project.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
1. Clearly mark each copy to identify pertinent materials, products or models.
  2. Show dimensions and clearances required.
  3. Show performance characteristics and capacities.
  4. Show wiring diagrams and controls.

## 2.03 SAMPLES

- A. Physical examples to illustrate materials, equipment or workmanship, and to establish standards by which completed work is judged.
- B. Office samples of sufficient size and quantity to clearly illustrate:



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1. Functional characteristics of product or material, with integrally related parts and attachment devices.
2. Full range of color samples.

## 2.04 PAY REQUESTS

- A. Pay Requests shall be made in accordance with the requirements of the Agreement between Owner and Design Build Firm.

## PART 3 - EXECUTION

### 3.01 DESIGN BUILD FIRM RESPONSIBILITIES

- A. Review Shop Drawings, Project Data and Samples prior to submission. Design Build Firm's approval stamp shall be on each submittal when received by the Engineer. Unstamped submittals will not be reviewed and will be returned "rejected" to the Design Build Firm.
- B. Verify
  1. Field measurements.
  2. Field construction criteria.
  3. Catalog numbers and similar data.
- C. Coordinate each submittal with requirements of Work and the Contract Documents.
- D. Design Build Firm's responsibility for errors and omissions in submittals is not relieved by Engineer's review of submittals.
- E. Design Build Firm's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Engineer's review of submittals, unless Engineer gives written acceptance of specific deviations.
- F. Notify Engineer, in writing at time of submission, of deviations in submittals from requirements of Contract Documents.
- G. Begin no work which requires submittals until return of submittals with Engineer's stamp and initials or signature indicating review.
- H. After Engineer's review, distribute copies.

### 3.02 SUBMISSION REQUIREMENTS

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- A. Schedule submissions at least 14 days before dates reviewed submittals will be needed.
- B. Submit number of copies of Shop Drawings, Project Datum and Samples which Design Build Firm requires for distribution plus 4 copies which will be retained by the Engineer.
- C. Accompany submittals with transmittal letter, in duplicate, containing:
  - 1. Date.
  - 2. Project title and number.
  - 3. Design Build Firm's name and address.
  - 4. Notification of deviations from Contract Documents.
  - 5. Other pertinent data.
- D. Submittals must include:
  - 1. Date of submittal and revision dates.
  - 2. Project title and number.
  - 3. The names of:
    - a. Engineer.
    - b. Design Build Firm.
    - c. Supplier.
    - d. Manufacturer.
    - e. Separate detailer when pertinent.
  - 4. Identification of product or material.
  - 5. Relation to adjacent structure or materials.
  - 6. Field dimensions, clearly identified as such.
  - 7. Identification of deviations from Contract Documents.
  - 8. Design Build Firm's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract Documents.

### 3.03 RESUBMISSION REQUIREMENTS

- A. Shop Drawings.
  - 1. Revise initial drawings as required and resubmit as specified for initial submittal.
  - 2. Indicate on drawings any changes which have been made other than those requested by Engineer.
- B. Project Data and Samples:
  - 1. Submit new datum and samples as required for initial submittal.

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### **3.04 DISTRIBUTION OF SUBMITTALS AFTER REVIEW**

- A. Distribute copies of Shop Drawings and Project Datum which carry Engineer's stamp, to:
1. Design Build Firm's file.
  2. Job site file.
  3. Record Documents file.
  4. Supplier.
  5. Fabricator.

**END OF SECTION**

**SECTION 01400****QUALITY CONTROL****PART 1 - GENERAL****1.01 WORK INCLUDED**

- A. This section covers the work as required to provide and/or coordinate:
1. Quality assurance and control of installation
  2. References
  3. Inspection
  4. Manufacturers' field services and reports

**1.02 REFERENCES**

- A. Conform to reference standard by date of current issue on date for receiving bids.
- B. Should specified reference standards conflict with Contract Documents, request clarification from City or Engineer before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

**1.03 QUALITY ASSURANCE/CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in the correct sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from City or Engineer before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

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- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

**SECTION 01410****TESTING LABORATORY SERVICES****PART 1 - GENERAL****1.01 REQUIREMENTS INCLUDED**

- A. Design Build Firm will employ and pay for the services of an independent testing laboratory to perform certain specified testing. All testing described in the Contract Documents shall be paid for by the Design Build Firm.
- B. Owner may employ and pay for the services of an independent testing laboratory to perform certain specified testing in addition to what is called for in the Contract Documents.
  - 1. Design Build Firm shall cooperate with the laboratory to facilitate the execution of its required services.
  - 2. Employment of a laboratory by the Owner shall in no way relieve Design Build Firm's obligations to perform the work of the Contract.
- C. Inspection, Sampling and Testing is required for:
  - 1. Densities and Proctors (for soil compaction)
  - 2. Cast-in-place Concrete (slump and compressive strength)
  - 3. Other operations specified in these specifications or as required by the Engineer or Owner.

**1.02 RELATED REQUIREMENTS**

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- B. Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.

**1.03 QUALIFICATION OF LABORATORY**

- A. Meet "Recommended Requirements for Independent Laboratory Qualification," published by American Council of Independent Laboratories.

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- B. Meet basic requirements of ASTM E329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction."
- C. Authorized to operate in the City, County, and State in which the Project is located.
- D. Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during the most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- E. Testing Equipment:
  - 1. Calibrated at reasonable intervals by devices of accuracy traceable to either:
    - a. National Bureau of Standards
    - b. Accepted values of national physical constants.

**1.04 LABORATORY DUTIES**

- A. Cooperate with Engineer and Design Build Firm; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling, and testing of materials and methods of construction:
  - 1. Comply with specified standards
  - 2. Ascertain compliance of materials with requirements of Contract Documents.
- C. Promptly notify Engineer and Design Build Firm of observed irregularities or deficiencies of work or products.
- D. Promptly submit written report of each test and inspection; one copy each to Engineer, Owner, and Design Build Firm, and one copy to Record Documents File. Each report shall include:
  - 1. Date issued
  - 2. Project title and number
  - 3. Testing laboratory name, address, and telephone number
  - 4. Name and signature of laboratory inspector
  - 5. Date and time of sampling or inspection
  - 6. Record of temperature and weather conditions
  - 7. Date of test

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8. Identification of product and specification section
  9. Location of sample or test in the Project
  10. Type of inspection or test
  11. Results of tests and compliance with Contract Documents
  12. Interpretation of test results, when requested by Engineer
- E. Perform additional tests as required by Engineer or the Owner

**1.05 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY**

- A. Laboratory is not authorized to:
1. Release, revoke, alter, or enlarge on requirements of Contract Documents
  2. Approve or accept any portion of the work
  3. Perform any duties of the Design Build Firm

**1.06 DESIGN BUILD FIRM'S RESPONSIBILITIES**

- A. Cooperate with laboratory personnel and provide access to work and to manufacturer's facilities.
- B. Secure and deliver to the laboratory adequate quantities of representative samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other material mixes which require control by the testing laboratory.
- D. Provide to the laboratory a representative proctor sample of the materials to be used for backfilling throughout the project.
- E. Furnish copies of product test reports as required.
- F. Furnish incidental labor and facilities:
1. To provide access to work to be tested
  2. To obtain and handle samples at the project site or at the source of the product to be tested
  3. To facilitate inspections and tests
  4. For storage and curing of test samples
- G. Notify laboratory, in advance of operations to allow for laboratory assignments of personnel and scheduling of tests.



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- H. Pay for services of the Testing Laboratory to perform additional inspections, sampling and testing required:
1. For Design Build Firm's convenience.
  2. When initial tests indicate Work does not comply with Contract Documents.
  3. Such payment shall be made directly by the Design Build Firm.
- I. Design Build Firm will be responsible for payment for all failing tests.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

**SECTION 01500****CONSTRUCTION CONSIDERATIONS****PART 1 - GENERAL****1.01 CUTTING AND PATCHING**

- A. The Design Build Firm shall perform all cutting and patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by such other work. The Design Build Firm shall not endanger any work of others by cutting, excavating or otherwise altering their work and shall only cut or alter work with the written consent of the Engineer and of the other Design Build Firms whose work will be affected.
- B. The Design Build Firm shall submit in writing to the Engineer in advance of executing any cutting or alteration that may impact the structural value or integrity of any element of the project, effectiveness or integrity of weather-exposed or moisture- resistance elements or systems, efficiency, life, maintenance or safety of operational elements, or visual qualities of exposed elements.
- C. The written request shall fully describe the work, the necessity for the alteration, proposed products, and schedule. The description should discuss procedures for inspection, preparation, performance, and restoration.

**1.02 ABANDONMENT AND SALVAGE OF EXISTING FACILITIES**

- A. General: The scope of work requires the Design Build Firm to interface with existing structures, and piping which will be abandoned or otherwise removed and/or relocated as part of the work. Prior to beginning any work associated with existing facilities to be abandoned, salvaged, or otherwise removed or relocated, the Design Build Firm shall inform the City and the Engineer of his intent so that all arrangements can be made with the City for isolating pipelines (where possible) or otherwise removing existing facilities from service to the extent possible. The Design Build Firm shall not proceed without written authorization from the City. Existing utilities coordination is exclusively the responsibility of the Design Build Firm.
- B. Pipelines: The Design Build Firm shall abandon, salvage or otherwise remove existing pipelines or segments of existing pipelines shown to be abandoned in place, salvaged, or removed as part of the contract work. Unless otherwise indicated in the Contract Documents, all piping shown on the Drawings to be abandoned shall be abandoned in place. Pipe shown to be abandoned need only be removed a minimum three feet clear of new

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utilities to be installed. Abandon-in-place shall be defined as installing plugs, or other permanent closure, as reviewed and accepted by the City, on all termination's, open ends or ends of pipe designated as being cut, capped and anchored in an acceptable manner. The pipe will remain buried unless otherwise noted.

- C. Piping indicated on the Drawings as being removed, or any piping to be abandoned which interferes with new structures or piping, shall be excavated and removed using methods which will not disturb adjacent piping or other facilities. All pipe materials shall be subject to salvage by the City as defined below. Any remaining piping on both ends of pipe segments removed shall be abandoned in-place, per the above definition. After piping has been removed, the Design Build Firm shall backfill the evacuated area in accordance with requirements set forth in other sections of these specifications.
- D. Equipment: The Design Build Firm shall abandon, salvage or otherwise remove existing equipment or other facilities as shown on the Contract Drawings or indicated herein. In all cases, the Design Build Firm shall exercise caution when handling the existing equipment so as not to disturb or damage adjacent facilities. The Design Build Firm shall make all repairs to adjacent facilities which may be damaged as a result of the Design Build Firm's efforts in abandoning, salvaging or otherwise removing existing facilities, at no additional cost to the City.
- E. Salvage: The City may desire to salvage certain items of existing equipment which are to be dismantled and removed during the course of construction. Prior to removal of any existing equipment or piping from the site of work, the Design Build Firm shall ascertain from the City whether or not the particular item or items are to be salvaged. Items to be salvaged shall be stockpiled on the site, in a location as designated by the City. All other items of equipment shall be disposed of off-site by the Design Build Firm at his own expense, in accordance with applicable laws, ordinances and regulations.

### 1.03 DIMENSIONS OF EXISTING STRUCTURES

- A. Where the dimensions and locations of existing structures are of critical importance in the installation or connection of new work, the Design Build Firm shall verify such dimensions and locations in the field before the fabrication of any materials or equipment which is dependent on the correctness of such information.

### 1.04 REHABILITATION

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- A. Certain areas of existing structures, piping, conduits, and the like will be affected by work necessary to complete modifications under this Contract. The Design Build Firm shall be responsible to rehabilitate those areas affected by its construction activities.
- B. Where new rectangular openings are to be installed in concrete or concrete masonry walls or floors, the Design Build Firm shall score the edges of each opening (both sides of wall or elevated slab) by saw cutting clean straight lines to a minimum depth of one inch and then chipping out the concrete. Alternately, the opening can be formed by saw cutting completely through the slab or wall. Saw cuts deeper than one inch (or the depth of cover over existing reinforcing steel, whichever is less) shall not be allowed to extend beyond the limits of the opening. Corners shall be made square and true by a combination of core drilling, chipping, or grinding. All necessary precautions shall be taken during removal of concrete to prevent debris from falling and damaging adjacent equipment or piping. Saw cuts allowed to extend beyond the opening shall be repaired by filling with nonshrink grout. The concrete around any exposed reinforcement steel shall be chipped back and exposed reinforcement steel cut a minimum of 1-1/2 inches from the finished face of the new opening. The inside face of the new opening shall be grout to fill any voids and cover the exposed aggregate and shall be trowel-finished to provide a plumb and square opening.
- C. Where new conduit or piping is to be installed through existing concrete walls, the Design Build Firm shall accurately position the core-drill openings. Openings shall be adequately sized to allow alignment of piping or conduit and fittings without deflection and to provide adequate clearance for satisfactory packing in the annular space between the piping or conduit and the core drilling opening as shown on the Drawings.
- D. Where new piping is to be connected to existing piping, the existing piping shall be cut square and the ends properly prepared for the connection shown on the drawings. Any damage to the lining and coating of the existing piping shall be repaired by the Design Build Firm.
- E. Where existing structural steel members are removed or modified, the surface of the remaining existing steel members damaged by construction activities shall be repaired. The affected areas shall be surface prepared and coated in accordance with Section entitled "Painting".
- F. All debris, materials, piping, and miscellaneous waste products from the work described in this section shall be removed from the project as soon as possible. They shall be disposed of in accordance with applicable federal, state, and local regulations. The Design Build Firm is responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

## 1.05 OBSTRUCTIONS

- A. All water pipes, storm drains, sanitary sewers, force mains, gas or other pipe, telephone or power cables or conduits and all other obstructions, whether or not shown, shall be temporarily supported across utility line excavations. The Design Build Firm shall be responsible for any damage to any such pipes, conduits, or structures. Approximate locations of known water, sanitary, drainage, power and telephone installations along route of new pipelines or in the vicinity of new work are shown but must be verified in the field by the Design Build Firm. The Design Build Firm shall uncover these pipes, ducts, cables, etc., carefully, by hand, prior to installing new lines. Any discrepancies or differences found shall be brought to the attention of the Engineer in order that necessary changes may be made to permit installation of new work.

## 1.06 TEST PITS

- A. Test pits or subsurface utility exploration to locate underground piping or structures in advance of construction shall be performed and restored by the Design Build Firm at his cost as directed by the Engineer. Test pits shall be backfilled and restored immediately after their purpose has been satisfied as directed by the Engineer.

## 1.07 SITE CONDITIONS

- A. The Design Build Firm acknowledges that he has investigated prior to bidding and satisfied himself as to the conditions affecting the Work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, canal stages, tides, water tables or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the Work. The Design Build Firm further acknowledges that he has satisfied himself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, or any contiguous site, as well as from information presented by the Drawings and Specifications made a part of this Contract, or any other information made available to him prior to receipt of Bids. Any failure by the Design Build Firm to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the Work. The City assumes no responsibility for any conclusions or interpretations made by the Design Build Firm on the basis of the information made available by the City.

## 1.08 SUBSURFACE INVESTIGATIONS

- A. The Design Build Firm shall be responsible for having determined to his satisfaction, prior to the submission of his bid, the nature and location of the work, the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the groundwater condition, the character of equipment and facilities required preliminary to and during the performance of the work, the general and local conditions and all other matters which can in any way affect the work under this Contract. The prices established for the work to be done shall reflect all costs pertaining to the work. Any claims for extras based on the substrata or ground water table conditions will be disallowed.
- B. The Design Build Firm further acknowledges that he assumes all risk contingent upon the nature of the subsurface conditions actually encountered by him in performing the work covered by the Contract, even though such actual conditions may result in the Design Build Firm performing more or less work than he originally anticipated.

## 1.09 PROTECTION OF PROPERTY

- A. The Design Build Firm shall protect all property that may be affected by his work or operations. The location and extent of underground and covered facilities are not guaranteed and the Design Build Firm is cautioned to proceed with care in order to prevent the undermining or damage to existing utilities including piping, power cable, utility poles, conduit, duck bank, fiber optic cable, gas, telephone and cable TV services, structures, piping, and other facilities.
- B. The Design Build Firm shall take all measures necessary to protect new and existing mechanical equipment from dust and debris. All protective measures shall be furnished, installed, lighted, ventilated, maintained, and removed at the Design Build Firm's own cost.
- C. When City water is being used, the supply source shall be protected against contamination in accordance with existing codes and regulations.
- D. In the event any of the Design Build Firm's activities were to disrupt or endanger any facilities, he shall at his own expense make all necessary repairs or replacements necessary to correct the situation to the satisfaction of the Engineer. Such work shall progress continuously to completion on a 24-hour per day, seven workday basis. The Design Build Firm shall be responsible for the services of repair crews on call 24 hours per day for emergencies that arise involving work under this Contract.

## 1.010 WEATHER CONDITIONS

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- A. Work that may be affected by inclement weather shall be suspended until proper conditions prevail. In the event of impending storms, the Design Build Firm shall take necessary precautions to protect all work, materials and equipment from exposure. The City reserves the right, through the opinion of the Engineer, to order that additional protection measures over and beyond those proposed by the Design Build Firm, be taken to safeguard all components of the project. The Design Build Firm shall not claim any compensation for such precautionary measures so ordered, nor claim any compensation from the City for damage to the work from the elements of weather.

### **1.011 FIRE PROTECTION**

- A. The Design Build Firm shall take all necessary precautions to prevent fires at or adjacent to the work, including his own buildings and trailers. Adequate fire extinguisher and hose line stations shall be provided throughout the work area.

### **1.012 SAFETY AND HEALTH REQUIREMENTS**

- A. The Design Build Firm shall comply in every respect with all Federal, State and local safety and health regulations.
- B. The Design Build Firm shall provide all barricades and flashing warning lights or other devices necessary to warn pedestrians and area traffic.

### **PART 2 – PRODUCTS (Not Used)**

### **PART 3 – EXECUTION (Not Used)**

## **END OF SECTION**

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## SECTION 01510

### TEMPORARY UTILITIES

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Furnish, install, and maintain temporary utilities required for construction; remove on completion of entire project.
- B. Provide temperature, ventilation, and lighting requirements, if applicable, as specified in each individual section.

##### 1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work

##### 1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with federal, state, and local codes and regulations, and with utility company requirements.

#### PART 2 - PRODUCTS

##### 2.01 MATERIALS (GENERAL)

- A. Materials may be new or used but must be adequate in capacity for the required usage. They MUST NOT create unsafe conditions and MUST NOT violate requirements of applicable codes and standards.

##### 2.02 TEMPORARY ELECTRICITY AND LIGHTING

- A. The Design Build Firm must maintain power to all existing buildings, pump stations, businesses, residences, and other related areas.
- B. The Design Build Firm is responsible for providing and paying for all power required for his operations. Design Build Firm shall make arrangements with Owner for temporary power.
- C. Design Build Firm is responsible for arranging power for his office trailers(s), power tools, etc., at his own expense. The Design Build Firm shall pay the costs of all power used.



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- D. Provide Power Centers for miscellaneous tools and equipment used in the work:
  - 1. Weatherproof distribution box with minimum of four 20-amp., 120-volt grounded outlets.
  - 2. Locate so that power is available at any point of use with minimum 100-foot Construction-Type power cords.
  - 3. Provide circuit breaker protection for each outlet.
- E. Provide adequate artificial lighting for all areas of work, when natural light is not adequate for work, and for areas accessible to persons other than Design Build Firm's employees.
- F. If Design Build Firm requires service other than specified above, he shall arrange for, provide maintenance, and pay all costs incurred.

### 2.03 TEMPORARY WATER

- A. The Design Build Firm will be responsible for making application to the City of Fort Lauderdale to obtain hydrant meters. The Design Build Firm is responsible to provide and install a certified RPZ (backflow preventer). The City does not provide certified RPZ's. The Design Build Firm is responsible for all temporary water connections and backflow preventers at locations needed by the Design Build Firm and approved by the Engineer. Maintenance of such is the responsibility of the Design Build Firm.
- B. Construction water will be paid for by the Design Build Firm. In an event that damage to these facilities occurs, the Design Build Firm will be responsible for all costs associated with their replacement by the City's standard rate.

### 2.04 TEMPORARY SANITARY FACILITIES

- A. Design Build Firm shall provide temporary sanitary facilities in compliance with laws and regulations. Location of such facilities will be subject to the approval of the City. Existing City/Residence facilities are not available for use by the Design Build Firm.
- B. Design Build Firm shall provide for regular service, cleaning, and maintenance of temporary facilities and enclosures.

## PART 3 - EXECUTION

### 3.01 GENERAL

TEMPORARY UTILITIES

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- A. Maintain and operate systems to ensure continuous service.

**3.02 REMOVAL**

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Restore existing facilities used for temporary services to specified, or to original, condition.

**END OF SECTION**

**SECTION 01530****PROTECTION OF EXISTING FACILITIES****PART 1 - GENERAL****1.01 THE REQUIREMENT**

- A. The Design Build Firm shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- B. The Design Build Firm shall obtain a "sunshine one call" certification number at least 2 working days prior to beginning any excavation.
- C. The Design Build Firm shall verify the exact locations and depths of all utilities shown and the Design Build Firm shall make exploratory excavations of all utilities that may interfere with the Work. All such exploratory excavations shall be performed as soon as practicable after award of Contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Design Build Firm's work.
- D. If upon excavation, an existing utility is found to be in conflict with the proposed construction or to be of a size or material different from that shown on the plans, the Design Build Firm shall immediately notify the Engineer of Record, who will in turn notify the City of Fort Lauderdale Public Works Department.
- E. The Design Build Firm shall be responsible for damage to any existing utilities for which the Design Build Firm fails to request locations from sunshine one call. The Design Build Firm is also responsible for damage to any existing utilities which are properly located.
- F. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.

**1.02 RESTORATION OF FACILITIES**

- A. General: All paved areas cut or damaged during construction shall be replaced with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit. All temporary and permanent pavement shall conform to the requirements of the affected

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pavement City. All pavements which are subject to partial removal shall be neatly saw cut in straight lines.

- B. Temporary Restoration: Temporary restoration includes repair to all driveways, sidewalks and roadways. They shall be swept clean and be maintained free of dirt and dust. All areas disturbed by the construction activities shall be restored to proper grade, cleaned up, including the removal of debris, trash, and deleterious materials. All construction materials, supplies, or equipment, including piles of debris shall be removed from the area. All temporarily restored areas shall be maintained by the Design Build Firm. These areas shall be kept clean and neat, free of dust and dirt, until final restoration operations are completed. The Design Build Firm is responsible to utilize dust abatement operations in the temporarily restored areas as required, to the satisfaction of the Engineer.
- C. Temporary Resurfacing: Wherever required by the public authorities having jurisdiction, the Design Build Firm shall place temporary surfacing promptly after backfilling and shall maintain such surfacing for the period of time fixed by said authorities before proceeding with the final restoration and improvements.
- D. Permanent Resurfacing: In order to obtain a satisfactory junction with adjacent surfaces, the Design Build Firm shall saw cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement, unless otherwise shown on the drawings.
- E. Final Restoration: Final restoration shall include the completion of all required pavement replacement of roadways, driveways, curbs, gutters, sidewalks and other existing improvements disturbed by the construction: final grading, placement of sod, installation or replacement of any trees or shrubs, repair of irrigation systems, pavement markings, etc., all complete and finished, acceptable to the Engineer.

### 1.03 EXISTING UTILITIES AND IMPROVEMENTS

- A. General: The Design Build Firm shall protect all underground utilities and other improvements which may be impaired during construction operations. It shall be the Design Build Firm's responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Design Build Firm will verify the restraint of existing utility

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lines, and shall restrain as necessary to prevent blowouts, prior to connecting to existing utilities.

- B. Utilities to be Moved: In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon request of the Design Build Firm, be notified by the City to move such property within a specified reasonable time. When utility lines that are to be removed are encountered within the area of operations, the Design Build Firm shall notify the City a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.
- C. Where the proper completion of the Work requires the temporary or permanent removal and / or relocation of an existing utility or other improvement which is shown, the Design Build Firm shall remove and temporarily replace or relocate such utility or improvement in a manner satisfactory to the City and the OWNER of the utility/facility. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the Design Build Firm in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.
- D. City's Right of Access: The right is reserved to the City and to the Owner's of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work of this Contract.
- E. Underground Utilities Shown or Indicated: Existing utility lines that are shown or the locations of which are made known to the Design Build Firm prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired by the Design Build Firm.
- F. Underground Utilities Not Shown or Indicated: In the event that the Design Build Firm damages any existing utility lines that are not shown or the locations of which are not made known to the Design Build Firm prior to excavation by the City and Sunshine One-Call Notification, a written report thereof shall be made immediately to the City. The Design Build Firm shall make the repairs immediately under the provisions for changes and extra work contained in the General Conditions.
- G. Approval of Repairs: All repairs to a damaged improvement are subject to inspection and approval by an authorized representative of the City before being concealed by backfill or other Work.

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- H. No fill, excavation material, construction generated debris or equipment shall obstruct water valves, gas meters or sewer manholes. Water, sewer and gas service shall be made accessible to repair or maintenance crews representing the City or a privately-owned utility company.
- I. Maintaining in Service: All power and telephone or other communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the City are made with the owner of said utilities. The Design Build Firm shall be responsible for and shall repair all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

#### 1.04 TREES WITHIN STREET RIGHTS-OF-WAY AND PROJECT LIMITS

- A. If any tree removal or relocation is required, the Design Build Firm needs to coordinate with the Engineer, accordingly. All required permits related to tree removal are the responsibility of the Design Build Firm.

#### PART 2 – PRODUCTS (Not Used)

#### PART 3 – EXECUTION (Not Used)

END OF SECTION

**SECTION 01550****SITE ACCESS AND STORAGE****PART 1 - GENERAL****1.01 SITE ACCESS**

- A. The Design Build Firm shall make its own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the site of the Work. It shall be the Design Build Firm's responsibility to construct and maintain any haul roads required for its construction operations.
- B. The Design Build Firm shall submit a Site Access Route Map and a Storage Area Site Plan for review and approval by the Engineer and the City prior to start of work. Submittals shall comply with Section 01300 of these specifications.

**1.02 STORAGE**

- A. Limited storage area is available within the work areas. Any equipment and materials stored shall be in accordance with the manufacturer's recommendations and as indicated by the City.
- B. Responsibility for protection and safekeeping of equipment and materials will be solely that of the Design Build Firm, and no claim shall be made against the City by reason of any act of an employee or trespasser. Should an occasion arise necessitating access to an area occupied by stored equipment and/or materials, the Design Build Firm shall immediately move them.
- C. Upon completion of the Contract, the Design Build Firm shall remove from the storage and work areas all of their equipment, temporary fencing, surplus materials, rubbish, etc., and restore the area to its original or better conditions.

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION (Not Used)****END OF SECTION**

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## SECTION 01560

### TEMPORARY CONTROLS

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Furnish, install, and maintain temporary control facilities required for construction; remove on completion of entire project any features not intended to remain on the project site.
- B. Provide noise control, dust control, water control, debris control, pollution control and erosion control as specified in the appropriate sections of these documents.

##### 1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with federal, state, and local codes and regulations and utility company requirements.
- B. Comply with the requirements of all permits and easements issued by the FDEP, SFWMD, and City of Fort Lauderdale and any other agencies that have issued permits for the project.

##### 1.03 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.

#### PART 2 - PRODUCTS

##### 2.01 MATERIALS (GENERAL)

- A. Materials may be new or used but must be adequate in capacity and quality for the required usage, MUST NOT create unsafe conditions and MUST NOT violate requirements of applicable codes and standards.

##### 2.02 TEMPORARY NOISE CONTROL

- A. Mechanical equipment shall be fitted with mufflers to reduce noise from internal combustion type engines. The City of Fort Lauderdale has specific requirements for sound levels within their municipal limits. The Design Build Firm shall familiarize himself with these requirements and adhere to them during the construction of the project. This will be strictly enforced



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during the project. Special provisions for noise, especially for those pieces of equipment that are required to run on a continuous basis, shall be made.

- B. Bells, sirens, alarms, etc., shall be adjusted to provide adequate warnings to personnel on the project site; however, they shall be regulated to an intensity that is amenable to the neighboring communities and within applicable limitations stated within the local Code of Ordinances.
- C. Exterior construction work noises shall be kept to a minimum during evening, night, and early morning hours. All construction noise shall not exceed the limits set forth with the applicable limits stated in the local Code of Ordinances. If noise levels need to exceed these levels to allow the work to progress, special permission from the City shall be requested by the Design Build Firm a minimum of 60 days before this work is to begin.
- D. In addition to on-site control, noise considerations shall be made to off-site vehicles and equipment (mobilization, demobilization, deliveries, etc.).

### **2.03 TEMPORARY DUST CONTROL**

- A. Dust formed as a result of the construction shall be controlled by the Design Build Firm. Cleaning of work areas and application of dust control materials are the most effective methods of dust control. Design Build Firm shall adhere to the methods indicated in the Stormwater Pollution Prevention Plan (SWPPP) prepared by the Design Build Firm for the NPDES permit.

### **2.04 TEMPORARY WATER CONTROL**

- A. The flow of water through the construction site shall be controlled by the Design Build Firm such that it does not damage any constructed items; however, it shall be diverted and channeled to effectively leave the site as soon as possible. Puddling and ponding on the site is not permitted.
- B. Water shall be controlled such that it does not enter excavated areas, nor is deposited on or against constructed features.

### **2.05 TEMPORARY DEBRIS CONTROL**

- A. Provision shall be made by the Design Build Firm to have available adequate containers to hold any and all debris that is to be generated from the project. Containers should be covered to prevent wind blowing paper, plastic, and lightweight products around and off the site.
- B. Instructions shall be given to personnel to utilize the trash containers. Containers shall be placed in convenient places at the site.

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- C. At least once per week, a thorough cleaning of trash and debris shall be made at the construction site. An acceptable method of disposal shall be employed.

**END OF SECTION**

**SECTION 01570****TRAFFIC REGULATIONS AND MAINTENANCE OF TRAFFIC****PART 1 - GENERAL****1.01 THE REQUIREMENT**

- A. Maintenance of traffic in the public Right - Of - Way shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and Broward County Traffic Engineering Division (BCTED) and submitted to the City of Fort Lauderdale Public works - Engineering Department.
- B. All open trenches and holes adjacent to roadways or walkways shall be marked and barricaded to assure the safety of both vehicular and pedestrian traffic.
- C. No trenches or holes near walkways or in roadways or their shoulders are to be left open during nighttime hours without express permission of the City of Fort Lauderdale.

**1.02 TRAFFIC CONTROL**

- A. Design Build Firm shall obey all traffic laws and comply with all the requirements, rules and regulations of the State of Florida Department of Transportation (FDOT), the City of Fort Lauderdale, Broward County and other local authorities having jurisdiction, to maintain adequate warning signs, lights, barriers, etc., for the protection of traffic on public roadways and the treatment plant site.
- B. The Design Build Firm shall maintain traffic and protect the public from all damage to persons and property within the Contract Limits, in accordance with the Contract Documents and all applicable state, city and local regulations. The Design Build Firm shall conduct its construction operations so as to maintain and protect access, for vehicular and pedestrian traffic, to and from all properties and business establishments adjoining or adjacent to those streets affected by his operations, and to subject the public to a minimum of delay and inconvenience. Suitable cones, signage, barricades, railing, types of barricades, arrow boards, etc. shall be erected and the work outlined by adequate lighting at night. Danger lights shall be provided as required. Watchmen, flagmen, and crossing guards shall be provided as may be necessary for the protection of traffic. Traffic Control and Maintenance of traffic during construction shall be included in the Design Build Firm's bid and no additional payment shall be requested to the City for these activities

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- C. For the protection of traffic in public or private streets and alleyways, the Design Build Firm shall provide, place, and maintain all necessary barricades, traffic cones, warning signs, lights, and other safety devices in accordance with the requirements of the MUTCD, Part VI, Traffic Controls for Street and Highway Construction and Maintenance Operations”, published by U.S. Department of Transportation, Federal Highway Administration (ANSI D6.1).
- D. The Design Build Firm shall submit a Maintenance of Traffic (MOT) Plan for Engineer and/or City approval at least 60 days prior to construction work.
- E. Prior to performing any work within or abutting the State rights-of-way, the Design Build Firm shall submit a Maintenance of Traffic (MOT) Plan to FDOT for approval as required by the FDOT Utility Permit.
- F. All signs, signals, and barricades shall conform to the requirements of Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.
- G. All dirt spilled from the Design Build Firm’s trucks on existing pavements shall be removed by the Design Build Firm immediately and whenever in the opinion of the City the accumulation is sufficient to cause the formation of mud, dust, interference with traffic or create a traffic hazard.
- H. Areas designated by the Broward County Traffic Engineering Division as “Safe Walk Routes” shall adhere to the requirements of the Broward County Maintenance of Traffic School/Pedestrian.

### 1.03 TEMPORARY CROSSINGS

- A. General: Wherever necessary or required for the convenience of the public or individual residents at street or highway crossings, private driveways, or elsewhere, the Design Build Firm shall provide suitable temporary bridges over unfilled excavations, except in such cases as the Design Build Firm shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges, which written consent shall be delivered to the City prior to excavation. All such bridges shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the Design Build Firm shall adopt designs furnished by said authority for such bridges, or shall submit designs to said authority for approval, as may be required.
- B. Street Use: Nothing herein shall be construed to entitle the Design Build Firm to the exclusive use of any public street, alleyway, or parking area during the performance of Work hereunder, and it shall so conduct its

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operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such streets, alleyways, or parking areas. No street shall be closed to the public without first obtaining permission of the City and proper governmental authority. Where excavation is being performed in primary streets or highways, one lane in each direction shall be kept open to traffic at all times unless otherwise provided or shown. Toe boards shall be provided to retain excavated material if required by the City or the agency having jurisdiction over the street or highway. Fire hydrants on or adjacent to the Work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the Design Build Firm to assure the use of sidewalks and the proper functioning of all gutters, sewer inlets, and other drainage facilities.

- C. The Design Build Firm shall take all necessary precautions for the protection of the Work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. The Design Build Firm shall station such guards or flaggers and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. All signs, signals, and barricades shall conform to the requirements of Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.
- D. The Design Build Firm shall remove traffic control devices when no longer needed, repair all damage caused by installation of the devices, and shall remove post settings and backfill the resulting holes to match grade.
- E. Temporary Street Closure: If closure of any street is required during construction, a formal application for a street closure shall be made to the authority having jurisdiction at least 30 days prior to the required street closure in order to determine necessary sign and detour requirements. Detour signs shall be provided, installed prior to street closure, and removed after construction by the Design Build Firm.
- F. Temporary Driveway Closure: The Design Build Firm shall notify the City or occupant (if not owner-occupied) of closure of driveways to be closed more than one eight-hour work day, at least three working days prior to the closure. The Design Build Firm shall minimize the inconvenience and minimize the time period that the driveways will be closed. The Design Build Firm shall fully explain to the owner/occupant how long the work will take and when closure is to start.
- G. Temporary Bridges: Whenever necessary, the Design Build Firm shall provide suitable temporary bridges or steel plates over unfilled excavations, except in such cases as the Design Build Firm shall secure the written consent of the individuals or authorities concerned to omit such temporary

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bridges or steel plates, which written consent shall be delivered to the Engineer prior to excavation. All such bridges or steel plates shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges or steel plates for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the Design Build Firm shall adopt designs furnished by said authority for such bridges or steel plates, or shall submit designs to said authority for approval, as may be required.

#### **1.04 DESIGN BUILD FIRM PARKING**

- A. The Design Build Firm shall obtain off-site parking for all personnel vehicles as required.

**Part 2 - PRODUCTS (Not Used)**

**Part 3 - EXECUTION (Not Used)**

**END OF SECTION**

**SECTION 01590**

**PROJECT SIGN**

**PART 1 - GENERAL**

**1.01 PROJECT SIGN**

- A. Design Build Firm shall furnish and install a 4' x 8' sign (with white painted posts) prior to start of construction. A sample sign template is below but is not specific to the project. The exact style and design of the sign will be provided by the CITY to the Design Build Firm during the preconstruction meeting in PDF format.



**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

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## **SECTION 01600**

### **MATERIAL AND EQUIPMENT**

#### **PART 1 - GENERAL**

##### **1.01 REQUIREMENTS INCLUDED**

- A. Products
- B. Workmanship
- C. Manufacturer's Instructions
- D. Transportation and Handling
- E. Storage and Protection

##### **1.02 RELATED REQUIREMENTS**

- B. Section 01010 - Summary of Work
- C. Section 01090 - Reference Standards
- D. Section 01300 - Submittals and Progress Schedules
- E. Section 01740 - Warranties and Bonds

##### **1.03 PRODUCTS**

- A. Products include materials, products, equipment and systems.
- B. Comply with specifications and referenced standards as minimum.
- C. DO NOT provide used materials and products, except as specifically allowed by notation or indication in Contract Documents.

##### **1.04 WORKMANSHIP**

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship of specified quality.



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- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and rocking.

### 1.05 MANUFACTURER'S INSTRUCTIONS

- A. When work is specified to comply with manufacturer's printed instructions, obtain and distribute copies to persons involved, and maintain one set at job site in field office.
- B. Perform work in accordance with manufacturer's instructions and specified requirements.
- C. Should a conflict exist between Specifications and manufacturer's instructions, consult with Engineer.

### 1.06 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accordance with construction schedules; coordinate to avoid delay of progress, conflict with work and with conditions at the site.
- B. Transport products by methods to avoid product damage; deliver dry in an undamaged condition in manufacturer's unopened containers or packaging.
- C. Provide equipment and personnel to handle product by methods to prevent soiling or damage.
- D. Promptly inspect shipments to assure that products comply with requirements, quantities are correct and products are undamaged.

### 1.07 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
- B. Store sensitive products in weather-tight enclosures; maintain within temperatures and humidity ranges recommended/required by manufacturer's instructions. PVC pipe shall not be stored in a place where it can be exposed to ultraviolet light.
- C. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.

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- D. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- E. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged and are maintained under required conditions.
- F. After installation, provide coverings to protect products from damage from traffic and construction operations, remove when no longer needed.

#### **1.08 PRODUCT OPTIONS**

- A. Within 30 days after date of Contract, submit complete list of major products proposed, with name of manufacturer, trade name and model.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

**SECTION 01700****CONTRACT CLOSEOUT****PART 1 - GENERAL****1.01 REQUIREMENTS INCLUDED**

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- B. Related requirements specified in other sections:
  - 1. Section 01720 - Project Record Documents
  - 2. Section 01730 - Operating and Maintenance Manuals
  - 3. Section 01740 - Warranties and Bonds

**1.02 SUBSTANTIAL COMPLETION**

- A. When Design Build Firm considers his work is substantially complete, he shall submit to Engineer:
  - 1. A written notice that the work, or designated portion thereof, is substantially complete.
  - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, Engineer will review the work to determine the status of completion.
- C. Should Engineer determine that the work is not substantially complete:
  - 1. Engineer will promptly notify the Design Build Firm, in writing, giving the reasons.
  - 2. Design Build Firm shall remedy the deficiencies in the work, and shall send a second written notice of substantial completion to Engineer
  - 3. Engineer will re-review the work
- D. When Engineer concurs that the work is substantially complete, he will:
  - 1. Prepare a Certificate of Substantial Completion, accompanied by a list of items to be completed or corrected
  - 2. Submit the Certificate to Owner and Design Build Firm for their written acceptance of the responsibilities assigned to them in the certificate.

### 1.03 FINAL INSPECTION

- A. When Design Build Firm considers the work is complete, he shall submit written certification that:
1. Contract Documents have been reviewed
  2. Work has been inspected for compliance with Contract Documents
  3. Work has been completed in accordance with Contract Documents
  4. Equipment and systems have been tested in the presence of the Owner's representative and are operational
  5. Equipment and systems instructions to Owner's personnel have been completed in accordance with Section 01730
  6. Work is completed and ready for final inspection
- B. Engineer will review the work to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should Engineer consider that the work is incomplete or defective:
1. Engineer will promptly notify the Design Build Firm, in writing, listing the incomplete or defective work.
  2. Design Build Firm shall take immediate steps to remedy the stated deficiencies and send a second written certification to Engineer that the work is complete.
  3. Engineer will re-review the work
- D. When Engineer finds that the work is acceptable under the Contract Documents, he shall request the Design Build Firm to make closeout submittals.

### 1.04 RE-INSPECTION FEES

Should the Engineer perform re-inspection due to failure of the work to comply with the claims of status of completion made by the Design Build Firm, Design Build Firm will compensate Engineer/Owner for such additional services.

### 1.05 ADDITIONAL SERVICES

Should Engineer be required to provide representation at the site for the administration of the Contract for Construction, more than thirty days after the specified Date of Substantial Completion of the work, Design Build Firm will compensate Engineer for such additional services.

### 1.06 DESIGN BUILD FIRM'S CLOSEOUT SUBMITTALS TO ENGINEER

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- A. Evidence of compliance with requirements of governing authorities.
- B. Project Record Documents: To requirements of Section 01720 and the General Conditions and Terms of the Contract.
- C. Warranties and Bonds: To requirements of Section 01740 and the General Conditions and Terms of the Contract.
- D. Evidence of Payment and Release of Liens: To requirements of the General Conditions and Terms of the Contract.
- E. Certificate of Insurance for Products and Completed Operations.
- F. One (1) Year Maintenance Bond
- G. Certificate of Operation from equipment manufacturers

**1.07 FINAL ADJUSTMENT OF ACCOUNTS**

- A. Submit a final statement of accounting to Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:
  - 1. The original Contract Sum
  - 2. Additions and deductions resulting from:
    - a. Previous change orders
    - b. Unit prices
    - c. Deductions for uncorrected work
    - d. Deductions for liquidated damages
    - e. Deductions for re-inspection payments
    - f. Other adjustments
  - 3. Total Contract sum, as adjusted
  - 4. Previous payments
  - 5. Sum remaining due
- C. Engineer will prepare a final change order, reflecting approved adjustments to the Contract sum which were not previously made by change order.

**1.08 FINAL APPLICATION FOR PAYMENT**

- A. Design Build Firm shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

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**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

CONTRACT CLOSE-OUT

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**SECTION 01720****PROJECT RECORD DRAWINGS****PART 1 - GENERAL****1.01 REQUIREMENTS INCLUDED**

- A. Design Build Firm shall maintain at the site for the Owner one record copy of the following:
1. Drawings
  2. Specifications
  3. Addenda
  4. Change orders and other modifications to the Contract
  5. Engineer field orders or written instructions
  6. Approved shop drawings, product data, and samples
  7. Field test records
- B. Related requirements specified in other sections:
1. Section 01300 - Submittals
  2. Section 01700 - Contract Close-out

**1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES**

- A. Design Build Firm shall store documents and samples in the field office apart from documents used for construction.
1. Provide files and racks for storage of documents.
  2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with Specifications – Table of Contents.
- C. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by Engineer and City. Record drawing information shall be maintained concurrently with Pay Requests.

**1.03 MARKING DEVICES**

- A. Provide felt tip marking pens for recording information in the color red.

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**1.04 RECORDING (SEE ALSO GENERAL CONDITIONS AND TERMS)**

- A. The Design Build Firm shall provide record drawings for all pay applications, partial releases and final release submittals. With each submittal provide survey data, signed and sealed by the Design Build Firm's Surveyor, to support elevation information depicted on the record drawings.
- B. Label each document "PROJECT RECORD" in neat large printed letters.
- C. Record information concurrently with construction progress. DO NOT conceal or backfill any work until required information is recorded.
- D. Drawings-General: The Record Drawings shall correctly and accurately be drawn to record actual construction. Legibly mark to record actual construction:
1. Horizontal location of pipes and other improvements shall be provided any time the pipe passes a permanent surface reference point. Permanent surface reference points must be permanent structures manholes, catch basins, concrete sidewalk or concrete curbs. Edge of pavement and road intersections may not be used without the Engineer's approval. Any deviations from the alignment shown on the drawings must be noted.
  2. Vertical location of piping shall be provided at fittings, tie-ins and 25 foot intervals. Vertical location shall be pipe elevation as called for on the drawings.
  3. All fittings, including sleeves and valves shall be located vertically and horizontally by two measurements to permanent surface reference points.
  4. All building, electrical, and mechanical deviations, additions or deletions, not shown on the design plan shall be recorded.
  5. Existing utilities that are not shown on the plans that are found in the field are to be noted and recorded on the record drawings. Actual locations of all utilities shall be noted and recorded on the record drawings.
  6. Field changes of dimension and detail.
  7. Changes made by Work Change Directives or by Change Order.
  8. Details not on original Contract Drawings
  9. Limits of work including temporary storage equipment area
  10. All information required by the City Standards.
- E. Drawings – General Requirements for Pressure Mains. Record Drawings shall legibly and accurately depict record actual construction and showing the following, as a minimum:



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1. Material used to construct mains.
2. Location and top of pipe elevation of all fittings, including sleeves, and valves by stationing and offsets
3. Top of pipe elevation at every 25 feet and at every change of direction.
4. Length of restrained pipe
5. All elevations and horizontal control of all storm sewer, gravity sewers including laterals, electric cables, television cables, telephone cables, force mains and water mains which are crossed or exposed.
6. Locations and elevations as required to define major horizontal/vertical pipe deflections/conflicts. Data shall include beginning and end of deflection/conflicts, all changes in elevations and alignment and the location and elevation of subject conflict item.
7. Location and elevation of all connections to existing systems.
8. Locations and elevations as required to describe all other improvements.

F. Drawings – Specific Requirements for Pressure Mains

1. General - FOR ALL LAYERS:
  - a. All references to "proposed" and "plan" are to be removed from the Final Record Drawings
  - b. All lines, structures, and other items that are relocated will be removed and shown in the proper location (hand written notes and "x"ing out will not be allowed)
  - c. All record drawings will be signed and sealed by Certified Land Surveyor or Professional Engineer licensed to practice in the State of Florida. If certified by a Surveyor, P.E. will sign off stating that the record drawings was checked by the engineer, verifying that they inspected the work
  - d. Clearly mark existing infrastructure which is to remain.
  - e. Clearly mark existing infrastructure which has been abandoned, and how it was abandoned.
  - f. Station, length, width and depth of flowable fill used.
  - g. Record Drawings shall not be greater than 1" - 30' in scale
  - h. All Detail sheets shall be included with each record drawing
  - i. Location by station and elevation, width, depth and length of flowable fill used for all uses.
  - j. Supply all surveys of the project and or property.
2. Water and Force Mains - TO BE SHOWN ON ONE layer:

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- a. Location of all meter boxes, valves, tees, bends, reducers, caps, plugs, fire hydrants, backflow preventers, water services, taps, air release valves, including top of pipe at ARV, and centerline of water main on station and offset not to exceed 100'. All horizontal deflections shall be called out.
  - b. Top of pipe elevations should be shown on all tees, valves, bends, reducers, caps, plugs, centerline of water main not to exceed 100 lineal feet, and bottom flange of barrel section of the fire hydrant. All vertical deflections shall be called out
  - c. Restrained joint pipe length (station to station).
  - d. Manufacturer, model, usage, type and size of valves shall be shown on the plan
  - e. Numbered sample points locations needed for Health Dept. submittal (to be removed from "final" as-built).
  - f. Length of run between fittings, type of and size of pipe material.
  - g. Call out variation (if it exists) in stationing of corporation compared to meter box
3. Sanitary Sewers - TO BE LOCATED ON THE SAME layer AS WATER AND FORCE MAINS
- a. Manhole rim elevation, invert elevations and directions.
  - b. Length of run between sanitary structures, type of and size of pipe material with calculated percentage of slope for the run of pipe.
  - c. Location of sanitary service wyes with station and offset, together with the invert elevation, station and offset, pipe diameter and material (only at clean-out).
  - d. Locations and type of flexible eccentric coupling with station and offset, and adjoining pipe diameters and materials.
  - e. Applicable lift station information should be filled out on the detail sheet for lift stations.
4. Water/Sanitary/Storm Pipe Crossings and Separations - Part of WATER, SANITARY, AND/OR STORM layer
- a. Pipe types, sizes and material
  - b. Crossings: Top and bottom elevations of pipes crossing each other and the distance between the outside of the two lines
  - c. Separation: Distance between the OD of the two lines
5. Conflict Storm/Water/Sanitary Structures - Part of each APPLICABLE layer:

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- a. Top and bottom of casing
  - b. All info asked for in storm or sanitary manhole descriptions with the addition of top of all pipes.
6. Casings - Part of each APPLICABLE layer:
- a. Material and thickness
  - b. Top of and invert of casing
  - c. Length and station and offset of ends
  - d. If used, station and offset for vent, including tap location, and fittings
7. Storm Sewers - TO BE LOCATED ON A separate layer:
- a. Manhole and catch basin rim elevation, outfalls and top of headwall invert elevations and direction, weir elevations, bottom of manholes and catch basins (sumps)
  - b. Length of run between storm structures, type of and size of pipe material with calculated percentage of slope for the run of pipe
  - c. Location of service connections (without manholes) together with the invert elevation, pipe diameter and material
  - d. Dry retention, wet retention, dry detention, wet detention areas
  - e. Exfiltration trenches, Station at beginning and end of system, width, depth
  - f. Top of and toe of slope on berm elevation designed to stop flooding
8. Street Lights - TO BE LOCATED ON A separate layer:
- a. Manufacturer, model, and height of poles shall be shown on the record drawings
  - b. Manufacturer, model, and wattage and voltage of lights shall be shown on the record drawings
  - c. Pull boxes, station and offset.
  - d. Length of conduit runs between boxes and poles, type of, and size of pipe material. Show as laid in the ground, not as a wiring schematic, with amount, by color, type of, and size of wiring material
  - e. Service connection, type (FP&L owned, City metered) station and offset
9. Irrigation - TO BE LOCATED ON A separate layer:

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- a. Backflow preventer, control stand location, Control valve, zone, station and offset
- b. Main line piping size, material, lengths, depth
- c. Heads, Type (1/4, half, 3/4, full circle) zone, station and offset
- d. Control Stand, station and offset

10. Landscaping - TO BE LOCATED ON A separate layer:

- a. Tree type, caliper, and height
- b. Tree grate, size, and model
- c. Station, elevation, length, width, and depth of Structural Soil used
- d. Top of and toe of slope on berm elevation for landscaping

11. Private Construction Impacts to Right-of-Way - TO BE LOCATED ON A separate Layer:

- a. Private utility or revocable easements in the City ROW's or on City property must be shown on the plan. Any improvements within the easement need to be shown and called out as private. The recording information should be on the as-built.
- b. Privately owned lighting, irrigation and landscaping in the City right-of-way needs to be called out as private and identified.
- c. All aerial and underground footer easements (in ROW)

G. Specifications and Addenda: Legibly mark each section to record:

1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
2. Changes made by field order or by change order.

H. Photographs:

1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
2. Changes made by field order or by change order.

## 1.05 SUBMITTAL

- A. Record drawings shall be submitted to the Engineer with pay applications, and partial and final releases in the following formats:

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1. All incoming as-built survey AutoCAD drawing files shall be received in digital format and in state plane coordinates. The disk label shall include the following:
    - a. Engineering and/or Survey Company Name with prepared by statement
    - b. Project Name
    - c. City of Fort Lauderdale Project Number
    - d. Date the data is burned onto disk
    - e. Designate "Record Drawings", "Preliminary Record Drawings", or "Final Record Drawings"
  2. Four (4) - 24" by 36" hard copies, signed and sealed.
  3. An electronic PDF of the record drawing.
  4. AutoCAD Files must be submitted in DWG format, latest AutoCAD version.
  5. Each file should be for one section of development and one layer as described in 1.04. Multiple sections will not be accepted in one file.
  6. Tie into section corners in the Florida State Plane Coordinate System to insure proper orientation at each end of baseline.
- B. At Contract close-out, deliver Record Documents to Engineer for the Owner.
- C. Accompany submittal with transmittal letter in duplicate, containing:
1. Date
  2. Project title and number
  3. Design Build Firm's name and address
  4. Title and number of each Record Document
  5. Signature of Design Build Firm or his authorized representative

## 1.06 AS-BUILT SURVEYS

- A. CONTROL INFORMATION FOR AS-BUILT UTILITY SURVEY WORK
1. All as-built drawings shall state in 1" lettering "AS-BUILT RECORD SURVEY" located in the bottom right hand side of the drawing original and/or copies, along with the as-built date.
  2. All as-built surveys shall meet the minimum requirements of the Chapter 61G17, Florida Administrative Code Pursuant to Section 472 of the Florida Statutes. All surveys shall be based on a minimum horizontal control Third Order, "Class 2."
  3. All state plane coordinates shall be based on the Florida State Plane Horizontal Data (East Zone); Florida High Precision Geodetic Network (Superstation) and NAD 83/1990 – final adjustment.

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4. State plane coordinates shall be physically tied to a minimum of two known state plane coordinate benchmarks that utilize number 3 above. State plane coordinates shall be shown on survey at benchmarks used.
5. All record data shall be digitally positioned on the design drawings prepared by the engineer of record. Said design drawings shall be complete and include both plan and profile views of the infrastructure.
6. All as-builts shall clearly depict as-built utility lines that were constructed along with all easements.
7. All as-builts shall include the information required by the City Standards.

**PART 2 – PRODUCTS (Not Used)**

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

**END OF SECTION**

**SECTION 01730****OPERATION AND MAINTENANCE MANUALS****PART 1 – GENERAL****1.01 RELATED INFORMATION**

- A. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under the Contract.
  - 1. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of Specifications.
- B. Instruct Owner's personnel in the maintenance of products and in the operation of equipment and systems.

**1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE**

- A. Section 01300 - Submittals
- B. Section 01720 - Project Record Drawings

**I.03 FORM OF SUBMITTALS**

- A. Prepare data in the form of an instructional manual and electronic format for use by Owner's personnel.
- B. Hard-Copy Format:
  - 1. Size: 8-1/2 in. x 11 in.
  - 2. Text: Manufacturer's printed data, or neatly typewritten.
  - 3. Drawings:
    - a. Provide reinforced punch binder tab, bind in with text.
    - b. Fold larger drawings to the size of the text pages.
  - 4. Provide fly-leaf for each separate product, or each piece of operating equipment.
    - a. Provide typed description of product, and major component parts of equipment.
  - 5. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS". List:

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- a. Title of Project.
  - b. Identity of separate structure as applicable.
  - c. Identity of general subject matter covered in the manual.
- C. Binders:
- 1. Commercial quality expandable catalog binders with durable and cleanable plastic covers.
  - 2. When multiple binders are used, correlate the data into related consistent groupings.
- D. Electronic format shall be in .pdf file format. Copies of specific manuals shall either be scanned or converted to .pdf format and submitted in a digital format to Owner. Submit after approval of hard copies.

#### I.04 CONTENT OF MANUAL

- A. Neatly typewritten table of contents for each volume, arranged in a systematic order.
- 1. Design Build Firm, name of responsible principal, address and telephone number.
  - 2. A list of each product required to be included, indexed to the content of the volume.
  - 3. List, with each product, the name, address and telephone number of:
    - a. Design Build Firm or installer.
    - b. Maintenance Company, as appropriate.
    - c. Identify the area of responsibility of each.
    - d. Local source of supply for parts and replacement.
  - 4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- B. Product Data:
- 1. Include only those sheets which are pertinent to the specific product.
  - 2. Annotate each sheet to:
    - a. Clearly identify the specific product or part installed.
    - b. Clearly identify the data applicable to the installation.
    - c. Delete references to inapplicable information.



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- C. Drawings:
1. Supplement product data with drawings as necessary to clearly illustrate relations of component parts of equipment and systems.
  2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
  3. Do not use Project Record Documents as maintenance drawings.
- D. Written text, as required to supplement product data for the installation:
1. Organize in a consistent format under separate headings for different procedures.
  2. Provide a logical sequence of instructions for each procedure.
- E. Copy of each warranty issued.
1. Provide information sheet for Owner's personnel, give:
    - a. Proper procedures in the event of failure.
    - b. Instances which might affect the validity of warranties.

#### **I.05 MANUAL FOR EQUIPMENT AND SYSTEMS**

- A. Submit three (3) complete copies of manual in final form.
- B. Content, for each unit of equipment and system, as appropriate:
1. Description of unit and component parts.
    - a. Function, normal operating characteristics, and limiting conditions.
    - b. Performance curves, engineering data and tests.
    - c. Complete nomenclature and commercial number of all replaceable parts.
  2. Operating procedures:
    - a. Start-up, break-in, routine and normal operating instructions.
    - b. Regulation, control, stopping, shut-down and emergency instructions.
    - c. Summer and winter operating instructions.
    - d. Alignment, adjusting and checking.
  3. Servicing and lubrication schedule:

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- a. List of lubricants required for each piece of equipment.
  - b. Schedule for manufacturer recommended maintenance.
4. Manufacturer's printed operating and maintenance instructions.
  5. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
  6. Manufacturer's written warranties for parts and labor.
  7. Other data as required under pertinent sections of specifications.

**I.06 SUBMITTAL SCHEDULE**

- A. Submit one copy of completed data in final form fifteen days prior to final inspection or acceptance.
  1. Copy will be returned after final inspection or acceptance, with comments.
- B. Submit specified number of copies of approved data in final form 10 days after final inspection or acceptance.

**I.07 INSTRUCTION OF OWNER'S PERSONNEL**

- A. Prior to final inspection or acceptance, fully instruct Owner's designated operating and maintenance personnel in the operation, adjustment and maintenance of all products, equipment and systems.
- B. Operating and maintenance manual shall constitute the basis of instruction.
  1. Review contents of manual with personnel in full detail to explain all aspects of operations and maintenance.

**PART 2 – PRODUCTS (Not Used)****PART 3 – EXECUTION (Not Used)****END OF SECTION**

**SECTION 01740****WARRANTIES AND BONDS****PART 1 - GENERAL****1.01 REQUIREMENTS INCLUDED**

- A. Compile specified warranties and bonds.
- B. Compile specified service and maintenance contracts.
- C. Review submittals to verify compliance with Contract Documents
- D. Submit to Engineer for review and transmittal to Owner

**1.02 RELATED REQUIREMENTS**

- A. Section 01700 - Contract Closeout.
- B. Each respective section of Specifications shall have Warranties and Bonds required for specific products.
- C. Provisions of Warranties and Bonds, Duration: The respective section of specification which specifies the product.

**1.03 SUBMITTAL REQUIREMENTS**

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers and suppliers.
- B. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
  - 1. Product or work item
  - 2. Firm, with name of principal, address, and telephone number.
  - 3. Date of beginning of warranty, bond or service and maintenance contract.
  - 4. Duration of warranty, bond or service maintenance contract.
  - 5. Provide information for Owner's personnel:
    - a. Proper procedure in case of failure
    - b. Instances which might affect the validity of warranty bonds.
  - 6. Design Build Firm, name of responsible principal, address and telephone number.

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**1.04 FORM OF SUBMITTALS**

- A. Prepare in duplicate packets.
- B. Format:
  - 1. Size 8-1/2" X 11" punched sheets for 3-ring binder
    - a. Fold larger sheets to fit into binders
  - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS." List:
    - a. Title of project
    - b. Name of Design Build Firm
- C. Binders: Commercial quality, three-ring, with durable and cleanable plastic cover.
- D. Provide one electronic Adobe Acrobat format copy of warranties, bonds, and service maintenance contract in digital format.

**1.05 TIME OF SUBMITTALS**

- A. Make submittals within ten days after Date of Substantial Completion, prior to final request for payment.
- B. For items of work, where acceptance is delayed materially beyond the Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing the date of acceptance as the start of the warranty period.

**PART 2 – PRODUCTS (Not Used)****PART 3 – EXECUTIVE (Not Used)****END OF SECTION**

**SECTION 02016****EXISTING UTILITIES AND STRUCTURES****PART 1 – GENERAL****1.01 GENERAL**

- A. The plans depict the approximate location of the existing utilities. The locations of those facilities (horizontal and vertical) were obtained from record drawings. Guarantee is not made that all existing underground utilities are shown or that the location of those shown are entirely accurate. Finding the actual location of any existing utilities is the Design Build Firm's responsibility and shall be done before he commences and work in the vicinity. Furthermore, the Design Build Firm shall be fully responsible for any and all damages due to the Design Build Firm's failure to exactly locate and preserve any and all underground utilities.

**1.02 DESIGN BUILD FIRM'S RESPONSIBILITIES**

- A. Design Build Firm shall notify the Sunshine State One Call of Florida (SSOCF) service at 811, 48 hours prior to digging.
- B. Locate the cables, ducts, conduit, pipeline, etc. in advance of the proposed construction.
- C. Notify Engineer of any substantial changes and/or conflicts that would require a deviation in the plans. Late discovery of existing underground utilities does not constitute "required" deviations should early discovery prevent them.
- D. Repair any damage done to existing utilities at no additional expense to the Owner.
- E. Remove or modify those utilities scheduled to be removed or modified on the plans.

**1.03 PRECONSTRUCTION VIDEO**

- A. At least one (1) week prior to the start of construction, the Design Build Firm shall have video recordings taken of the entire project area. This area includes but is not limited to, the entire length of the uplands utility and FPL work, the construction staging area, the site area around the new and existing building, and the inside of the existing building including the

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upstairs, dry pit, and wetwell. Such recordings shall be provided to the Owner and Engineer before the commencement of construction. These recordings shall serve as record of the conditions as they existed prior to the start of the work. They will be used in the event of a dispute that arises from restoration or damage claims. The Design Build Firm shall pay particular attention to existing damage on public and private property near the work area and ensure that these items are documented on the video.

- B. Video tapes are to be delivered to the Owner and Engineer on a DVD in a standard video format that is able to be viewed on a Windows operating system. All videotapes shall become the property of the Owner.

**END OF SECTION**

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## SECTION 02060

### SANITARY SEWERAGE SYSTEM

#### PART 1 - GENERAL

##### 1.01 SYSTEM DESCRIPTION

- A. These Specifications shall govern the design, materials and installation requirements for gravity sanitary sewer systems constructed within the City of Fort Lauderdale's service area when using Poly Vinyl Chloride (PVC) pipe and fittings or Ductile Iron (DIP) pipe and fittings.
- B. This Specification does not purport to cover all material or installation procedures which may be required, whether by the nature of the proposed work, or by the City, or by other regulatory agencies.
- C. It is intent of the City to obtain a complete and working installation under this project, and any items of labor, equipment or materials which may reasonably be assumed as necessary to accomplish this end shall be supplied, whether or not they are specifically shown on the Plans or stated herein.

##### 1.02 RELATED WORK

- A. Section 01090 - Applicable Standards and Codes
- B. Section 01300 - Submittals
- C. Section 01400 – Quality Control
- D. Section 01570 - Traffic Regulations and Maintenance of Traffic
- E. Section 02070 - Sanitary Sewer Manholes
- F. Section 02210 - Earth Excavation, Backfill, Fill and Grading

##### 1.03 SUBMITTALS

- A. Submit manufacturers' literature and data for all materials.
- B. Submit drawings accurately showing wastewater collection systems and related site improvements in their installed locations prior to the placement of any asphalt or concrete pavement.
- C. Submit complete "as-built" information in the form of Project Record Documents as required by Section 01300, "Submittals":
  - 1. Maintain accurate, clear, legible and complete records forming a true representation of the Work completed and in progress.
  - 2. Provide drawing and specification documentation relative to:

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- a. Center of manholes, valves, services and fittings
- b. Vertical and horizontal locations of all fittings, cleanouts, and connection points.
- c. Pipe length, size, and material type.
- d. Television inspection, lamping tests, and any other required testing results.
- e. Dimensioned locations and elevations of all other related improvements and system components.

#### 1.04 QUALITY ASSURANCE

- A. All material and installation shall be in accordance with the City of Fort Lauderdale Utilities Department Specifications and Standard Details.
- B. The material and installation for this project shall be in full compliance with all applicable standards listed in Section 01090, "Applicable Standards and Codes".
- C. Survey Data: Base all elevations on North American Vertical Datum 88 (NAVD).
- D. Inspections: Design Build Firm shall notify the City of Fort Lauderdale, Engineer, and any other local, state or federal agencies having jurisdiction at least 48 hours prior to arrange the required inspection of the gravity sewer system.

#### 1.05 DESIGN REQUIREMENTS

- A. General:
  1. Gravity sanitary sewer systems shall be designed in accordance with State of Florida Department of Environmental Protection (FDEP) rules for wastewater facilities (Chapter 62-604), with the Recommended Standards for Wastewater Facilities ("Ten States Standards"), and the recommendations of Chapter 12 of ASCE Manual No. 37, "Sewer Design and Construction", except as otherwise provided herein. Wet wells and manholes shall be classified as hazardous areas, Class 1, Division 2, Group C.
  2. In addition, systems shall be designed in accordance with the requirements of the Broward County Environmental Protection and Growth Management Department Development and Environmental Regulation Division, the requirements of the latest edition of the Florida Building Code and the City of Fort Lauderdale Utilities Department Standards and Specifications.



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3. Manhole to manhole runs shall be kept in the range of no more than 300 feet without permission.
4. Minimum slope for terminal runs shall be 0.40 percent for eight-inch pipe. This slope shall be maintained for a minimum of 300 feet and longer if loading is abnormally light.
5. Design shall be performed by experienced personnel who have previously designed sewerage collection systems in the State of Florida. All design work submitted for approval shall be signed, sealed and dated by a registered professional engineer licensed to practice in the State of Florida.
6. Sewer pipe shall be installed in accordance with ASTM D-2321, and the manufacturers "recommended practice for the installation of PVC sewer pipe".
7. DIP shall be installed in accordance with ANSI/AWWA C600 latest revision.

**1.06 SAFETY REQUIREMENTS**

- A. The Design Build Firm shall be in compliance with all applicable provisions of the Occupational Safety and Health Act of 1970, in general, and any subsequent amendments and revisions thereto, especially the provisions concerning confined space entry.
- B. The Design Build Firm's personnel will be in the vicinity of raw sewage. For their own protection, the Design Build Firm shall check with the Health Department, and based upon their recommendation, shall have his personnel properly immunized against disease.
- C. Under this project, personnel may be required to enter existing manholes and/or sewers to perform work. Before entering, the Design Build Firm shall be in compliance with OSHA, and shall make certain that above-ground safety personnel be on duty at all times when someone enters or works in a manhole/sewer, and shall test the air within the manhole/sewer with a combination oxygen deficiency meter/explosion meter to determine oxygen content and explosion potential. A test for the presence of hydrogen sulfide shall also be performed. The work area must be ventilated mechanically by the use of an air blower before entry and during occupancy, to insure that an adequate quantity of oxygen is supplied to the work area.
- D. The Design Build Firm shall comply with all requirements of Section 01570, "Traffic Regulations and Maintenance of Traffic", and shall have the required traffic control devices, flagmen and uniformed police officers in place for the protection of the public and of the workers.
- E. In the instance of men working within the manholes, the Design Build Firm shall provide safety provisions to cover any possible consequences of

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structural failure and/or flooding. Such provisions might take the form of, but not be limited to, ladders in position to permit rapid egress, safety harnesses, stand-by pumping equipment, extra air supplies, and such other measures as the situation and good construction practices might indicate.

- F. Certain products specified for use on this project may include warnings from the manufacturers stating that under certain conditions, if instructions for proper use of the product are not followed, hazardous conditions may arise. It is the Design Build Firm's responsibility to instruct all workmen in the safe use of all specified products or approved substitutes.

## **PART 2 - PRODUCTS**

### **2.01 GENERAL**

- A. All material for use in the Project shall be new and of recent domestic manufacture and shall be the products of reliable manufacturers or suppliers who, unless otherwise specified, have been regularly engaged in the manufacture of such materials and equipment for at least five (5) years.
- B. All fittings and components shall, wherever possible, be standard stock articles of well-known manufacturers.
- C. Where the Specifications designate the products of a particular manufacturer, the product specified has been found suitable for the intended use, but, unless otherwise provided, articles or products of similar characteristics may be offered for the approval of the City.
- D. Copies of complete descriptive data shall be furnished regarding all material, consisting of dimension drawings, catalog references and other information necessary to clearly identify each article.
- E. When substitutions are permitted, the Design Build Firm shall make all necessary changes in adjacent or connected structures and equipment, at his expense
- F. Unless otherwise specified, all bolts, nuts, washers and all other miscellaneous ferrous metal items (except ductile iron) furnished by the Design Build Firm shall be AISI Type 316 stainless.

### **2.02 CASTINGS**

- A. General:
1. Material used in the manufacture of the castings shall conform to ASTM A48, "Gray Iron Castings", for Class 30 iron. Manhole and

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valve box covers shall have a roadway or pedestrian type surface as required by location, and shall be non-rocking.

2. Castings shall be delivered unpainted with a shot-blasted finish.

B. Manhole Frames and Covers:

Refer to Section 02070, "Sanitary Sewer Manholes".

### 2.03 BRICK

- A. Clay Brick: Bricks for manhole construction shall be dense, hard burned, common clay brick conforming to ASTM Standard C62, "Building Brick (Solid Masonry Units made from Clay or Shale)", except that brick absorption shall be between 5 and 25 grams of water absorbed in 1 minute by dried brick, set flat face down, in 1/8 inch of water.
- B. Concrete Brick: Concrete bricks shall conform to ASTM Standard C55, "Concrete Building Brick".
- C. All bricks shall have true edges and sharp corners and shall have been cured for at least 14 days before being placed.
- D. Thoroughly wet all brick before laying up.
- E. Lay up with shove joint in full beds, thoroughly slushed up with mortar at every corner.

### 2.04 CONCRETE, MORTAR AND GROUT

See Section 03315, "Grout", and Section 04060, "Mortar".

### 2.05 EMBEDMENT MATERIAL

- A. Embedment material for bedding, haunching and initial backfill shall conform to the requirements of Section 02222, "Excavation and Backfill for Utilities", and Section 02223, "Excavation and Backfill for Structures".

### 2.06 MANHOLES

Refer to Section 02070, "Sanitary Sewer Manholes".

### 2.07 SANITARY SEWER PIPE AND FITTINGS

- A. General:

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1. Pipe for use in gravity sewer systems shall be Ductile Iron lined with polyethylene or ceramic epoxy, PVC SDR 26, or AWWA C900, C905 PVC as shown on the plans or called out elsewhere herein. For further information on these types of pipe, refer to Section 15060, "Piping and Fittings".
- B. Gravity sewer pipe and fittings:
1. PVC sewer pipe and fittings shall be non-pressure polyvinyl chloride pipe conforming to ASTM D-3034, SDR 35, with push-on rubber gasket joints unless otherwise noted.
  2. Ductile Iron Pipe (DIP) shall be epoxy lined conforming to ANSI / AWWA C104/A21.4 latest revision, or polyethylene lined inside conforming to ANSI / AWWA C105/A21.5, or approved equal and shall have a coal tar epoxy exterior coating, manufactured in accordance to ANSI / AWWA C151/A21.51 latest revision, minimum wall thickness class 350 (unless otherwise specified). Class 52 shall be used in paved areas.
  3. All fittings and accessories shall be as manufactured or supplied by the pipe manufacturer.

## PART 3 - EXECUTION

### 3.01 PREPARATION

- A. Existing Utilities
1. Provide temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers, and other obstructions encountered in the progress of the Work.
  2. Permanently support, relocate, remove, or reconstruct existing utility structures (such as conduits, ducts, pipe branch connections to main sewers, main drains or other structures) where the grade or alignment of the pipe is obstructed Deviations from the required line or grade: Not permitted.
  3. Contact the "No-Cuts" Center and verify existing utility field locations at least 48 hours prior to beginning any excavation.
  4. Verify the size, location, elevation, and material of all existing utilities within the area of construction.
- B. Unloading Materials: Exercise care in unloading and handling pipe, valves, fittings, and all other material.
- C. Excavation

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1. Excavate pipe trenches to required depths.
2. In general, water distribution lines have a minimum of 36 inches cover.
3. If rock is encountered, excavate to a minimum of 6 inches below bottom of pipe, and backfill trench.
4. Width of trench: Sufficient to allow workmen to perform all operations incidental to constructing the pipeline.
5. Provide hand dug bell holes to permit proper joint making.
6. Pipe bearing on rock: Not Permitted.

**3.02 INSTALLATION**

- A. Install sewer pipe under provisions of ASTM D2321 and the Uni-Bell Plastic Pipe Association's "Recommended Practice for the Installation of PVC Sewer Pipe".
- B. Lay pipe commencing at the lowest point, with spigot ends pointing in the direction of flow:
  1. Lay all pipes with ends abutting and true to line and grade.
  2. Carefully center pipe and form a uniform invert.
  3. Lay pipe under provisions of manufacturer's requirements.
- C. Lay pipe accurately to the line and grade required for system performance:
  1. Clean and dry all surfaces of the portions of the pipe to be jointed or of the factory-made jointing material.
  2. Use lubricant, primers, adhesives, etc. as recommended by the pipe or joint manufacturer's specifications.
  3. Place, fit, join and adjust jointing materials or factory-fabricated joints in such a manner as to obtain a watertight line.
  4. Place sufficient backfill material along each side of the pipe to prevent movement of pipe off line and grade as soon as possible after the joint is made.
- D. Plug exposed ends of pipes to prevent earth, water or other substances from entering the pipe when construction is not in progress.
- E. Cleanouts: Install at all services exceeding 75 feet in length with cleanouts at the property line, or 5 feet from a building.
- F. All sanitary sewer service piping/laterals shall be 6-inch minimum diameter with minimum slope of 1/8-inch (vertical) per foot (horizontal) and 36-inch minimum ground cover.

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- G. Minimum slope of all service lines shall be as indicated in the "Florida building code".
- H. Service laterals shall terminate at a depth not to exceed 30 inches below finished grade.
- I. Each service connection shall be plugged watertight with an approved plug.
- J. Connection of services to building's plumbing shall be coordinated with the City of Fort Lauderdale building department, plumbing section.
- K. Concrete Encasement of Sewer Pipe:
  - 1. Excavate trenches with mechanical equipment.
  - 2. Provide temporary supports consisting of timber, wedges or masonry prior to formation of the encasement to support the pipe in place.
  - 3. Provide temporary supports of minimum dimensions and support the pipe at not more than 2 places, 1 at the bottom of the barrel of the pipe adjacent to the shoulder of the socket, and the other near the spigot end.
  - 4. After completion of jointing of the pipe has been completed, uniformly pour concrete beneath and on both sides of the pipe. Provide uniform encasement of at least 4 inches thick at all points.

**3.03 FIELD QUALITY CONTROL**

- A. Protect pipe during handling against impact shocks and free falls. Keep pipe clean at all times. Do not use pipe that does not conform to the specifications.
- B. Notify the utility company and authorities having jurisdiction at least 48 hours prior to beginning construction in order to arrange inspection of the sanitary sewer.
- C. The entire sewer system, including services/laterals and manholes, shall be tested in whole or in sections in accordance with Section 15995, "Testing and Disinfecting Mains".
- D. Temporary Drainage During Construction
  - 1. Construct and maintain temporary drainage facilities, which may be required to provide drainage relief for the new construction without causing abnormal or adverse flooding impacts to the existing or new facilities.
  - 2. Temporary facilities may include swales, pipe, etc. as necessary.

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E. Cleaning Up

1. Remove surplus pipeline material, tools, temporary structures, etc.
2. Dispose of all dirt, rubbish, and excess earth off site.

**END OF SECTION**

**SECTION 02065****DEMOLITION****PART 1 - GENERAL****1.01 SCOPE OF WORK**

- A. The Design Build Firm shall furnish all supervised labor, materials, equipment, and incidentals required for the removal of the existing wastewater pumps with associated piping, electrical and mechanical equipment, etc.
- B. The Design Build Firm shall furnish all supervised labor, materials, equipment, and incidentals required for the pump station structural, mechanical, and electrical demolition as shown on the plans.
- C. The Design Build Firm shall furnish all supervised labor, materials, equipment and incidentals required for the above grade and below grade structural demolition as shown on the plans.
- D. Removal procedures are as outlined below:
  - 1. Complete or partially remove and dispose of specified existing piping, mechanical equipment, electrical equipment and miscellaneous appurtenances encountered during construction operations.
  - 2. Temporarily modify structures, equipment, appurtenances and utilities as necessary to allow for operation of the facilities during construction.
  - 3. Demolish, remove and cut existing concrete and masonry structures as required for construction of the project.
  - 4. Handle existing equipment to be reinstalled or salvaged as specified.
  - 5. Arrange for off-site disposal of excess and unacceptable materials including but not limited to concrete, concrete blocks, bricks, steel, PVC, DIP, fuel, etc. All materials are to be disposed of in a legal manner.
  - 6. This section may not cover all of the activities necessary to perform the work. The Design Build Firm shall exercise due concern for the utility system operation and shall diligently direct all of the Design



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Build Firm's activities toward maintaining continuous operation of the existing facilities and minimizing operation impacts.

7. It is understood that there will be certain times that the station will be out of service. During these times, the Design Build Firm shall provide for the appropriate bypass pumping or make the modifications necessary to maintain at least one main pump in service at all times.

## 1.02 RULES AND REGULATIONS

- A. The Building Code of the State of Florida shall control the demolition, modification or alteration of the existing site.
- B. No blasting shall be done on site.
- C. Refer to the City of Fort Lauderdale and the project permits for additional requirements.

## 1.03 ACCESS

- A. Conduct demolition and modification operations, and the removal of equipment and debris to ensure minimum interference with roads and walks both on-site and off-site and to ensure minimum interference with occupied or used facilities.
- B. Special attention is directed towards maintaining safe and convenient access to the existing facilities.
- C. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the City. Provide alternate routes around closed or obstructed traffic in access ways.

## 1.04 PROTECTION

- A. The Design Build Firm shall conduct construction activities to minimize damage to adjacent buildings, structures, roadways, utilities, storm drainage, and other facilities, including persons.

## 1.05 DAMAGE

- A. The Design Build Firm shall immediately report damage caused to adjacent facilities by demolition operations. The Design Build Firm shall promptly make all required repairs as directed by the Engineer and at no cost to the City.

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## 1.06 UTILITIES

- A. It shall be the Design Build Firm's responsibility to maintain existing utilities in service and protect against damage during demolition operations.

## 1.07 POLLUTION CONTROL

- A. For pollution control, use sprinkling, temporary enclosures, and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air to the lowest level of air pollution practical for the conditions of work. Comply with the governing regulations.
- B. Clean adjacent structures and improvements of all dust, dirt, and debris caused by demolition operations. Return areas to conditions existing prior to the start of work.
- C. Pollution control measures outlined in the Stormwater Pollution Prevention Plan shall be implemented during the entire construction timeline to control turbidity and sediment discharges to the stormwater system
- D. The Design Build Firm shall provide for any required water quality monitoring programs as may be outlined in the SFWMD Dewatering Permit, if applicable.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

**SECTION 02070****SANITARY SEWER MANHOLES****PART 1 - GENERAL****1.01 SCOPE**

- A. The work specified in this Section includes all labor, materials, accessories, equipment and tools required for the construction, installation and testing of precast concrete sanitary sewer manholes, with or without outside drop connections. Manholes shall be located along sanitary sewer mains or at the intersection ("T") of sanitary sewer mains. Work in this section also includes frame/rim leveling and adjustment, manhole coatings, invert flow channels, connections to new and existing manholes, and connections to existing sewer.

**1.02 RELATED WORK**

- A. Section 01300 – Submittals  
B. Section 02141 - Temporary Bypass Pumping Systems

**1.03 REFERENCES**

- A. American Society for Testing and Materials/Latest Edition
1. ASTM A-48 - Specification for Gray Iron Casting
  2. ASTM C-62 - Specification for Sewer and Manhole Brick
  3. ASTM C-139 - Specification for Concrete Masonry Units for Construction
  4. ASTM C-443 - Specification for Joints for Circular Concrete, Sewer and Culvert
  5. ASTM C-478 - Specification for Pre-Cast Reinforced Concrete Manhole Sections
  6. ASTM C-923 - Specification for Resilient Connections Between Reinforced Concrete Manhole Structures, Pipes and Laterals
  7. ASTM C-1244 - Air Testing

**1.04 SUBMITTALS**

- A. The Design Build Firm shall submit Shop Drawings and other information for review in accordance with Section 01300 - Submittals, including: dimensions; elevations; dewatering, sheeting and bracing plans; cement type; concrete strength; reinforcement; lifting hooks; joint material; openings; castings; and other applicable information.

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**1.05 UPLIFT**

- A. All precast concrete manholes placed below grade shall have adequate safety factors against uplift (excluding weight of soil and associated skin friction) as follows:

<u>Water Elevation</u>	<u>Safety Factor</u>
High Water Level (H.W.L.)	1.5
100-year flood elevation	1.2

**PART 2 - PRODUCTS****2.01 FRAMES AND COVERS**

- A. All workmanship and materials shall be of the highest quality. The manhole ring and cover shall be the product of a manufacturer actively engaged in research, development, and manufacturing of watertight manhole rings and covers.
- B. Castings for frames and covers for manholes shall be composed of best quality, tough, gray iron, free from cold shuts, blow holes, and other imperfections, and shall meet the requirements of ASTM A-48 for Class No. 30B, designed for AASHTO Highway Loading Class H-20.
- C. All bearing surfaces shall be machined to fit true and shall be watertight. No plugging or filling will be allowed.
- D. Frame and cover shall be set to grade. Lid adapters or adjustment rings shall not be used on new construction.

**2.02 PRECAST MANHOLES**

- A. Precast concrete manholes or sections (hereinafter referred to as "precast sections") shall be furnished with waterstops, sleeves and openings as noted on the Drawings. Box out for wall pipes shall conform accurately to the sizes and elevations of the adjoining pipes. Precast sections shall be watertight and conform to the requirements of ASTM C 478 with reinforcement of ASTM A 615, Grade 60 bars and the following modifications there to:
1. The minimum wall thickness shall be 8 inches.
  2. Cement to be used in precast manholes and grout shall be ASTM C 150, Type II.
  3. The date and name of manufacturer shall be marked inside each precast sections.
  4. No more than 2 lift holes may be cast or drilled in each section.

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5. Minimum 28-day concrete strength shall be 4,000 psi.
- B. Walls of manholes shall be constructed of reinforced concrete ring sections with a minimum inside diameter of forty-eight (48) inches. Riser sections shall have tongue and groove ends (tongue on top of section). Top sections shall be of eccentric cone or flat slab top design as required by the Drawings. Eccentric cones shall have the same minimum wall thickness and area of circumferential steel reinforcement as the round riser sections. Flat slab tops shall have a minimum thickness of eight (8) inches and shall be reinforced with steel in accordance with the design requirements specified in ASTM C-478.
- C. Top sections shall have a top width of such design and dimensions as to properly support the required manhole frame and cover and the lower joint shall be of tongue and groove design.
- D. Top sections of cones or flat tops shall have an opening of thirty (30) inches.
- E. Manholes shall be precast per ASTM C-478 type 2 with 4000 psi concrete and Grade 60 steel, monolithically poured bases only.

**2.03 REINFORCED CONCRETE BASES**

- A. Pre-cast reinforced concrete bases shall normally be used in lieu of cast-in-place concrete bases.
- B. The base, for either type, shall extend six (6) inches beyond the outside face of the manhole wall and shall be at least eight (8) inches thick.
- C. Bottom section walls shall be monolithically cast with the base section to a minimum height of three feet (3') from the bottom of the base slab.
- D. Pre-poured flow lines in base are generally not accepted and will be approved only after inspection of a completed example.

**2.04 PRE-CAST CONCRETE GRADE RINGS**

- A. Grade rings shall be pre-cast; reinforced concrete in solid rings a minimum of 8" wide from 1" to 4" thick.
- B. Pre-cast concrete (grade) rings shall be manufactured in accordance with ASTM C-478.
- C. Rings shall have dimensions matching inside diameter of cone or flat top sections and be of adequate outside diameter to support full manhole

frame.

- D. Field molding of grade rings is prohibited.

## 2.05 GRADE RING SEALANTS

- A. Grade rings shall be installed using modified polymer sealant/adhesive between each sealing face.

## 2.06 PIPE-TO-MANHOLE CONNECTIONS

- A. Pipe-to-manhole connectors are required on all pipe connections to the structure, sized for respective pipe.
- B. Pipe opening shall be fitted with seals cast integrally with manhole section, sized to fit pipe specified, and set at correct elevation and location, or,
- C. Pipe openings shall be pre-cast four inches (4") larger than the pipe with a keyway all around the opening.
- D. Sewer pipe connections to manholes shall be made with flexible, resilient, waterproof connectors designed in accordance with ASTM C923, "Resilient Connectors between Reinforced Concrete Manhole Structures, Pipes and Laterals". Resilient pipe connectors shall be installed following casting in a cored or cast opening of the manhole wall. When the pipe is installed in the resilient manhole connector, the pipe shall be capable of a 20 degree minimum deflection in any direction.
- E. Resilient connectors shall either be of the gasket-type, or flexible neoprene boot with stainless steel clamps.

## PART 3 - EXECUTION

### 3.01 PREPARATION

- A. Traffic Control. The Design Build Firm is required to obtain all permits, use appropriate traffic regulating devices, notify all appropriate governmental agencies and conform to all the requirements listed in Section 01570 - Traffic Regulation and Maintenance of Traffic.
- B. Flow Control. Flow control shall be exercised as required to ensure that no flowing sewage comes into contact with sections of the manhole under construction.
  - 1. Plugging and Blocking of Flow. A sewer line plug shall be inserted into the line at a manhole upstream from the section to be

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inspected. The plug shall be so designed that all or any portion of the sewage flows can be released. During the inspection, testing and replacement portion of the construction, flows shall be shut off or substantially reduced as indicated by the City. The upstream manholes shall be constantly monitored for degree of surcharging. After the testing, inspection or repair is complete, flows shall be restored to normal level.

2. Pumping and Bypassing of Flow. Wherever lines are blocked off and the possibility of backing up the sewage and causing harm to public and private property is foreseen, it shall be the Design Build Firm's responsibility to bypass flow from manhole to manhole. See Section 02141 – Temporary Bypass Pumping Systems.
3. Bypassing shall be accomplished using sewer plugs with pump connections, by pumping down surcharged manholes, or by other methods acceptable to the City. All bypassed flow must be discharged to a sanitary sewer. Bypassed flow shall not be allowed to enter any storm line, drainage ditch or street gutter.
4. During a bypass operation, the pump shall be manned continuously. The Design Build Firm shall maintain the pump and bypass equipment and shall be responsible for any damages to public or private property due to the malfunction of same.

### 3.02 EXCAVATION AND BACKFILL

- A. The Design Build Firm shall excavate, backfill, and compact in accordance with Section 02222 - Excavation and Backfill for Utilities. Under no circumstances shall the Design Build Firm be allowed to remove concrete or asphalt without prior cutting. The saw cutting shall be deep enough to produce an even, straight cut. Backfilling shall occur in MAX 12-inch lifts with compaction by an engine driven hand tamp or other mechanical means as acceptable to the City.

### 3.03 DEWATERING, SHEETING AND BRACING

- A. The Design Build Firm shall dewater, sheet and/or brace all excavations in accordance with Section 02222 - Excavation and Backfill for Utilities. Well points, pumps, sheeting, bracing and/or sock drain shall be used to provide a safe, dry, open hole for all repairs or replacements specified herein.

### 3.04 NEW MANHOLE CONSTRUCTION

- A. General:
  1. At the locations indicated by the City, the Design Build Firm shall excavate and locate the existing piping in order to obtain the

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- relative elevations of existing sanitary sewer pipes with respect to ground surface elevation. Excavation shall be non-disruptive and non-destructive soil extraction as provided by Accurate Locating, Inc. or approved equal. After all measurements have been obtained, the excavated hole shall be backfilled and surface shall be restored to its original condition. Excavation and measurements shall be witnessed by the City. Inside measurement shall be used when replacing existing manholes.
2. The sewer pipe connections shall be cut to 2 to 3 feet outside the existing manhole exterior wall. Proper dewatering sheeting and bracing of the hole is critical; no manhole shall be allowed to be installed in an unsafe or wet hole.
- B. Bedding Requirements: The Design Build Firm shall excavate an additional 18 inches below the base of the manhole and fill with "Crushed Stone" as defined in Section 02222 - Excavation and Backfill for Utilities and shown in the Drawings. The Design Build Firm shall also use this crushed stone for bedding of all the sewer connections. No excavated fill shall be allowed in the hole until all connections are complete and proper bedding requirements have been met.
- C. Bases
1. Cast-in-Place
    - a. Base shall be to the design and dimensions indicated on the Drawings.
    - b. Set pre-cast wall section into fresh concrete for integral joint.
    - c. When using wall sections that contain no integral pipe seals, use length of pipe which extends five (5) feet minimum from outside of base dimension. Place approved waterstop on pipe at center point of wall thickness.
    - d. Flow channels shall be formed directly in the concrete of the manhole base and shall be smooth and accurately shaped to a semi-circular bottom conforming to the inside of the adjacent sewer sections. Changes in the direction of the sewer and entering branches shall have a true curve of as large a radius as the size of the manhole will permit. Channels shall be so conformed as to allow the unrestricted entry of television cameras into the sewer line.
    - e. Complete concrete placement around pipe openings, working well into water stop. Finish flush on outside.
    - f. All slopes (benches) outside flow channels shall be sloped gradual toward invert.
  2. Pre-Cast



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- a. Flow channels shall be placed after pipe placement.
- b. Flow channels, same size as pipe, may be constructed directly with the pre-cast base at time of manufacture. Submit manufacturer's product data to City for approval before placing order.

D. Setting Precast Sections

1. Precast reinforced concrete sections shall be set so as to be vertical and with sections in true alignment. A flexible, watertight gasket such as "Ram-Nek" or approved equal shall be used between sections. After the sections are assembled, the remaining space in the joint shall be pointed up and filled with a dense cement mortar and finished so as to make a smooth, continuous surface inside and outside the wall sections.
2. All holes in sections, used for their handling, shall be thoroughly plugged with mortar. All seams, keyways, and pipe connections shall be thoroughly plugged with brick and mortar inside and out as needed. The mortar shall be hammered into the holes until it is dense and an excess of paste appears on the surface; then finished smooth and flush with the adjoining surfaces.
3. The Invert Elevations that were surveyed by the Design Build Firm prior to manhole construction shall be used to install the inverts in the new manhole. The inverts shall be resurveyed and submitted to the City for as-built purposes.
4. Manholes shall be set plumb to line and grade on firm clean subgrade providing uniform bearing under the base.

E. Frames and covers

1. Install pre-cast concrete grade rings, minimum of 4" and total maximum of 12", set in two (2) strips of modified polymer sealant/adhesive compound on each sealing face.
2. Bricks shall not be used for grade adjustment.
3. Set maintenance access structure frame to proper elevation and to cross-section slope where required. Set in two strips of sealing compound and cover with a bed of Portland cement and silica sand. Set frame in cement bedding and bring mortar up over frame. Recheck elevation due to possible sealant compression.
4. Design Build Firm shall be responsible for adjusting the tops of all frames and covers to match the new paving elevation and providing a smooth even transition from pavement to maintenance access structure cover.
5. All lids shall be provided with a polyethylene watertight manhole insert.

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**F. Backfill**

1. The backfill shall be compacted; road subgrade (if in paved area) shall be replaced with acceptable material and compacted as specified in Section 02222 – Excavation and Backfill for Utilities. Prior to backfilling, ensure that all concrete cradles and encasements are dry; all spalls, scars, etc. are repaired; and all coatings have been applied.

**3.05 DISPOSAL**

- A. All excavated material such as pipe sections, concrete, debris or any other items excavated shall become property of the Design Build Firm. The Design Build Firm shall take full responsibility for proper disposal and include the cost in the appropriate bid items.

**3.06 TESTING**

- A. After construction or replacement work at each manhole has been completed and the materials used have been allowed to cure, it shall be tested for excess infiltration by the Design Build Firm in the presence of the City. THERE SHALL BE NO VISIBLE INFILTRATION. All manholes must meet this requirement before acceptance by the City.
- B. Manhole leakage shall be nonexistent.
- C. Visible manhole and sewer pipe infiltration leakage shall not be permitted.

**3.07 COVER ADJUSTMENT**

- A. Adjustment of existing (old) work requiring raising shall be performed in accordance with this Section.
- B. Rises in excess of twelve (12) inches shall be made by removing the top section of the manhole and inserting pre-cast sections required to meet the required elevation.
- C. When elevation changes require removal of an existing manhole section(s), the City shall be consulted in advance of the work to determine the best method to accomplish the work. The City will inspect all work.
- D. Methods and materials for lowering manhole frames shall comply with this Sections.

**3.08 CONNECTIONS TO EXISTING MANHOLE**

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- A. Design Build Firm shall cut an opening (core-bore) in the existing manhole to a size to allow the pipe with a waterstop attached plus one (1) inch clearance on all sides. Cut out existing concrete channel fill, allowing room to form satisfactory new flow channel.
- B. Coupling Adapters (Boots) shall be installed sized for the opening and the pipe diameter.
- C. Place length of pipe to provide joint at five (5) feet minimum from outside of manhole wall or base. Center waterstop in wall, fill opening with waterproof non-shrink grout material and form new flow channel. Second joint shall be five (5) feet ahead/back. Encase to first joint with Type II concrete.
- D. Pipe connection into manhole wall shall be PVC pipe, cast-in neoprene rubber boot, or equal as approved by the City of Fort Lauderdale Engineering and Utilities Departments.

### 3.09 CONNECTIONS TO EXISTING SEWERS

- A. For proposed sewers of a diameter equal to the existing sewer, a new manhole shall be constructed over the existing sewer to the proper invert elevation.
- B. Existing sewer service shall be maintained during base and flow channel work.
- C. When broken or damaged pipe results from this operation, replace with new pipe to meet current standards. Saw any piping to be removed to preclude cracking or irregular edges caused by breaking out with a hammer or using other methods.
- D. When replacing pipe, use pipe length to have a joint at five (5) feet minimum from manhole wall or base. Cradle and doghouse pipe to first joint with Class A concrete.
- E. For proposed sewers of eight (8) inch diameter or less, a direct connection to an existing sewer may be permitted by using a cutting-in saddle or wye. This method would generally apply to single family dwelling units. For industrial, commercial, or multifamily residences, the City may require that a manhole be constructed on the property to be served and over an existing sewer should one exist. All connections to existing sewers are subject to review by the City on an individual basis.
- F. Proposed sewers of a diameter larger than the existing sewer to which it is

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to be connected will not be normally permitted without providing additional capacity to the existing sewer.

**3.010 DROP MANHOLES**

- A. Drop connection shall be made where the invert of any inlet pipe is two (2) feet or higher than the invert out of the manhole.
- B. Pre-cast manhole sections shall have openings with integrally cast pipe seals to fit design elevations for new installations.
- C. When using "doghouse" sections or connecting to existing manholes refer to Sub-Section 3.09 for construction details of pipe through wall section.
- D. Connection configuration to manhole shall be made in accordance with Standard Details.
- E. Entire configuration of piping shall be encased in Type II concrete to a minimum thickness of six (6) inches.

**END OF SECTION**

**SECTION 02075****SUBMERSIBLE WASTEWATER PUMP STATION****PART 1 - GENERAL****1.01 SUMMARY**

- A. Section Includes:
  - 1. Submersible wastewater pump station.
  - 2. Initial operation of pump station.

**1.02 RELATED WORK**

- A. Section 01300 - Submittals
- B. Section 02141 - Temporary Bypass Pumping Systems
- C. Section 05540 - Access Hatches
- D. Section 11930 - Pumps General
- E. Section 11931 – Submersible Wastewater Pumps
- F. Section 16050 – Electrical – General Provisions

**1.03 REFERENCES**

- A. City of Fort Lauderdale Public Works – Engineering Department Standards and all applicable Broward County Standards.

**1.04 SYSTEM DESCRIPTION**

- A. Pumping Station: Duplex; field assembled; with precast concrete and/or cast-in-place concrete basin; submersible non-clog pumps; multiple automatic control for in ground installation.
- B. Service/Controls: FPL service, duplex control panel with level transducer and floats, conduits and wiring.
- C. Wetwell shall be in accordance with Class I, Div. II, hazardous location requirements, per necessity.
- D. Sound, Vibration, and Thermal Control: Dampen or suppress noise, absorb vibration, accommodate thermal expansion and stresses, and adjust or correct for misalignment in piping systems.
- E. Pump station control panel shall be provided by the instrumentation Vendor as shown on instrumentation drawings and as specified Division 16 – Electrical.

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## 1.05 SUBMITTALS

- A. Shop Drawings: Show size, materials, and components of system. Indicate wet well size, inlet and discharge location, cover dimensions, vent location, lifting cable location, valve vault, check valve location, plug valve location, pump location, emergency pump out location, guide rail assembly location, level transducer location, switch float locations and ballast support flange dimensions.
- B. Product Data:
  - 1. Include catalog data for basin, cover, hinged door, slide rail assembly, discharge piping, and valves.
  - 2. Include pump catalog data, performance curve, breakaway fittings data, and access frame data.
- C. Test Reports: Submit written report showing factory pump inspections and tests have been successfully performed.
- D. Manufacturer's Installation Instructions: Submit manufacturer's published installation instructions. Submit manufacturer's published instructions for basin, pump, and panel systems procedures.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.
- F. Manufacturer's Field Reports: Submit start-up report before final acceptance of pumps to document pumping station operation meets performance requirements.

## 1.06 CLOSEOUT SUBMITTALS

- A. Section 01700 – Contract Closeout

## 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Section 01600 – Equipment and Materials.

## 1.08 WARRANTY

- A. Section 01700 – Project Closeout.

## PART 2 - PRODUCTS

### 2.01 WET WELL

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- A. Concrete shall have not less than 3000 psi. Compressive strength at 28 days. Precast concrete shall be 4000 psi. Class ii minimum.
- B. Reinforcing steel shall conform to A.S.T.M Spec. A-615 and shall be deformed according to A.S.T.M Spec.305.
- C. Access Hatch: Per Section 05540 – Access Hatches
- D. Rail System: Slide rail assemblies consisting of 316 stainless steel upper and lower rail brackets and pump guide brackets per manufacturer's specifications.
- E. Switch Floats: Roto-Float mercury type.
- F. Odor Control System shall be Wagner Company Model 2025-100i as shown on the Conceptual Design Drawings. Odor control system to include necessary piping and fittings for connection to wetwell.
- G. Finish for interior and exterior of wetwell and valve vault shall comply with City of Fort Lauderdale Public Works – Engineering Department Standards and all applicable Broward County Standards.

**2.02 PUMPS**

- A. Pump shall be able to pump raw and unscreened wastewater from wet well.
- B. Pump Design: Per Section 11931 – Submersible Wastewater Pumps

**2.03 ACCESSORIES**

- A. Plug valves shall be of the non-lubricated, eccentric type with resilient faced plugs. Valves are to be equipped with actuating nuts as appropriate for the installation and type of operator.
- B. All fittings inside wetwell and valve pit shall be flanged.
- C. Grout: Non-shrink grout for pipe and conduit penetrations in basin/wet wall/ vaults
- D. Anchor Bolts, Nuts, and Washers: ASTM A709/A709M, Grade 36, bent anchor bolts; ASTM A307, Grade A, nuts; ASTM A126, stainless steel washers. Stainless steel bolts, nuts and washers in accordance with ASTM A153/A153M. Stainless steel on nuts and bolts shall be of different grades to prevent galling.

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- E. All hardware inside wetwell shall be stainless steel.
- F. Provide all hooks and brackets for guide rails, lifting chain, power and control cables as shown on drawings and as stated in this specification.

## 2.04 SPARE PARTS

- A. Provide spare parts that are identical and interchangeable with similar parts that are installed
  - 1. For each pump:
    - a. One complete set of gaskets and O-rings
    - b. One set of wearing rings.

## PART - EXECUTION

### 3.01 PUMP STATION INSTALLATION

- A. All piping shall be epoxy lined with flanged joints.
- B. All pipe opening shall be cast at time of fabrication.
- C. Locate level transducer to account for operating levels of "all pumps off", "lead pump on", "lag pump on", "low water alarm", "high water alarm" and "fault backup start". Set pumps to automatically switch operation from one pump to another after shut off of each pumping cycle.
  - 1. Start one pump automatically at "lead pump on" level.
  - 2. Start second pump automatically at "lag pump on" level.
  - 3. Signal alarm condition automatically at "low water alarm" level.
  - 4. Signal alarm condition automatically at "high water alarm" level.
  - 5. Start pumps automatically at "backup floats active" level.
  - 6. Stop both pumps automatically at "all pumps off" level.
- D. Locate three (3) mercury switch floats consisting of "low water alarm all pumps OFF", "high water alarm" and "backup floats active pumps ON" in wet well.
  - 1. Signal alarm condition automatically at "low water alarm all pumps OFF" level.
  - 2. Signal alarm condition automatically at "high water alarm" level.
  - 3. Start pumps automatically at "backup floats active pumps ON" level

### 3.02 PUMP INSTALLATION



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- A. Install pump including fittings, brackets, discharge piping, check valve to basin rail assembly, lifting device, and discharge. Wire pump to junction box.

### **3.03 BACKFILL**

- A. Backfill basin and direct burial cable in accordance with Section 02223 – Excavation and Backfill for Structures, and 02222 - Excavation and Backfill for Utilities, respectively.
- B. Maintain optimum moisture content of fill material to attain required compaction density.
- C. Do not use wheeled or tracked vehicles for tamping.
- D. Design Build Firm shall take precautions against floatation of the wetwell during construction.

### **3.04 WATER SERVICE INSTALLATIONS**

- A. Design Build Firm to provide new water service for the proposed pump station in full compliance with City of Fort Lauderdale Standard details as shown on the Conceptual Plans.

### **3.05 STATION STARTUP, INITIAL TESTING AND OPERATION**

- A. Notify the City and Engineer 3 days prior to flow rate testing. Pump supplier shall coordinate with instrumentation Vendor for the testing and operation.
- B. Provide technical staff for the startup and initial testing of pump station and association system.
- C. Correct failures during test by repairing or replacing malfunctioning parts or equipment or faulty workmanship, regardless of cause, within 48 hours after notification from Engineer.
- D. After correcting failures caused by defective equipment, material, or faulty workmanship, retest until failures are eliminated.
- E. Confirm general sequencing of pump and float operations at basin and control panel are in accordance with performance requirements.
- F. Document and certify startup results in start-up report.

### **3.06 MANUFACTURER'S FIELD SERVICE**

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- A. Section 01400 – Quality Control: Requirements for manufacturer’s field services.
- B. Furnish factory trained representative and field technical assistance during the following periods of pumping station installation:
  - 1. Unloading of station materials and components.
  - 2. Start-up, testing, and demonstration of station systems-basin, pump, and control panel.

**3.07 ADJUSTING**

- A. Section 01700 – Project Closeout: Requirements for starting and adjusting.
- B. Adjust pump and control panel systems so station operates to performance requirements and in accordance with specifications.

**3.08 DEMONSTRATION**

- A. Section 01700 – Project Closeout: Requirements for demonstration and training.
- B. Demonstrate operation of pumping station - basin components, pump system, and control panel.

**END SECTION**

**SECTION 02110****CLEARING AND GRUBBING****PART 1 - GENERAL****1.01 SCOPE**

- A. The work to be performed under this item shall consist of either the clearing of or the clearing and grubbing of the area of construction as designated on the drawings.
- B. Clearing - Where clearing only is required it shall consist of the cutting and removal of all trees, stumps, bush, logs, hedges, and the removal of all fences, concrete, debris, asphalt, and other loose or projecting material from the designated area. The grubbing of stumps and roots will be required.
- C. Clearing and Grubbing - Clearing and grubbing shall consist of clearing the surface of the ground of the designated areas of all trees, stumps, down timber, logs, snags, brush, undergrowth, hedges, heavy growth of grass or weeds, fences, structures, debris, and rubbish of any nature, natural obstructions or such material which, in the opinion of Engineer, is unsuitable, including grubbing of stumps, roots, matter roots, foundations and disposal from the project of all spoil materials resulting from clearing and grubbing by burning or otherwise.

**1.02 REFERENCES**

- A. Florida Department of Transportation Standard Specifications for Road and Bridge construction (F.D.O.T.), latest edition.

**PART 2 - MATERIALS****2.01 MATERIALS FOR REPLACEMENT**

- A. All materials required to be brought on to the site for filling of holes caused by grubbing or otherwise shall be as specified in Section 02220 – Excavation, Backfill and Compaction.

**PART 3 - EXECUTION****3.01 SCHEDULE**

- A. Design Build Firm shall schedule the clearing or clearing and grubbing work at a satisfactory time in advance of the project improvement construction operation.

**3.02 SPOIL MATERIALS REMOVAL**

- A. All materials to be disposed of by removal from the site shall be disposed of offsite in a legal manner by Design Build Firm at the Design Build Firm's expense. The manner and location of disposal of materials shall be subject to review by Engineer and shall not create an unsightly or objectionable view.

**3.03 CLEARING**

- A. Clear the area of all objectionable materials. Trees and other debris unavoidably falling outside the specified limits must be cut up, removed, and disposed of in a satisfactory manner. Preserve and protect from injury all trees not to be removed. The trees, stumps, and brush shall be cut to a height of not more than 12-inches above the ground. The grubbing of stumps and roots will be required.
- B. On site burning of debris will not be allowed.

**3.04 CLEARING AND GRUBBING**

- A. In areas designated to be cleared and grubbed, all stumps, roots, buried logs, brush, grass and other unsatisfactory materials shall be removed.
- B. All holes remaining after the grubbing operation in embankment areas shall have the sides broken down to flatten out the slopes, and shall be filled with acceptable material, moistened and properly compacted in layers to the density required in Section 02220. The same construction procedure shall be applied to all holes remaining after grubbing in excavation areas where the depth of holes exceeds the depth of the proposed excavation.

**END OF SECTION**

**SECTION 02141****TEMPORARY BYPASS PUMPING SYSTEMS****PART 1 - GENERAL****1.01 SUMMARY**

- A. Section Includes: Furnishing all materials, labor, equipment, power, maintenance, etc. to implement a temporary pumping system for the purpose of diverting the existing flow around the work area for the durations specified and disassembly of the bypass pumping system as specified herein.
- B. Be responsible for the design, installation and operation of the temporary pumping system. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
- C. The Design Build Firm is responsible to maintain flow throughout the contract period of construction. Once the Design Build Firm mobilizes, the City relinquishes responsibilities of any lift station operations to the Design Build Firm until Substantial Completion is reached.
- D. The Design Build Firm is responsible for maintenance of traffic associated with any bypass pumping systems in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), Broward County Traffic Engineering Division (BCTED), and as specified in Section 01570, Traffic Regulation and Maintenance of Traffic.
- E. Bypass pumping activities must be manned 24/7 by the Design Build Firm. Response time must be within 10 minutes if a high-water alarm is triggered to avoid sewer overflows. All costs associated with manning bypass pumping activities, responding to high water alarms, and sewer overflow clean up are the responsibility of the Design Build Firm.

**1.02 SYSTEM DESCRIPTION**

- A. Design Requirements:
  - 1. Provide bypass pumping systems with firm capacity to handle peak flow conditions, as determined by the Engineer.
  - 2. Provide all pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow can be safely diverted around the area of work. Bypass pumping system will be required to operate 24 hours per day.
  - 3. Provide control system for the sanitary sewage lift station bypass

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- pumping systems, which will run the pump(s) between preset levels. Additional controls are required for high-high level and low-low level alarms, and any pump faults.
4. Provide adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. One standby pump for each size pump utilized shall be installed at the mainline flow bypassing locations, ready for use in the event of primary pump failure.
  5. The bypass pumping system shall be capable of bypassing the flow around the work area as necessary for satisfactory performances of work.
  6. Make all arrangements for bypass pumping during the time when the pumping station is shut down for any reason. System must overcome any downstream pressure on discharge.
- B. It is essential to the operations of the existing wastewater system that there be no interruption in the flow of sewage throughout the duration of the project. To this end, provide, maintain and operate all temporary facilities such as, pumping equipment (both primary and back-up units as required), conduits, all necessary power, and all other labor and equipment necessary to intercept the wastewater flow before it reaches the point where it would interfere with the work, carry it past the work and return it to the existing wastewater downstream of the work.
- C. Provide all necessary means to safely convey the raw wastewater past the work area. Do not stop or impede the main flows under any circumstances.
- D. Maintain wastewater flow around the work area in a manner that will not cause surcharging of wastewater, damage to existing pipe line and that will protect public and private property from damage and flooding.
- E. Fluid Character: Provide pumping units to pump applicable type of water.
- F. Furnish pumps which meet rating capacity and head indicated on Process Pump Schedule.
- G. Pumps shall be capable of passing a minimum of a 3-inch non-deformable sphere.

### 1.03 SUBMITTALS

- A. Engineer approval is required for submittals with an "A" designation; submittals having an "FIO" designation are for information only. Provide all submittals, including the following, in accordance with Section 01300, Submittals.

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## B. Data:

## 1. Pump Data:

- a. Pump performance curves. Draw curves for the specified conditions. Include head, brake horsepower, efficiency and required NPSH, all plotted as a function of capacity, from zero to maximum capacity.
- b. Calculations of static lift, friction losses, and flow velocity.
- c. Submit a specific, detailed description of the proposed pumping system.
- d. Submit operating descriptions, component descriptions, control schematics, electrical connection diagrams and general arrangement drawings, for control equipment.

## C. Drawings:

## 1. Shop Drawings:

- a. Submit shop drawings, including arrangement and erection drawings of the equipment and equipment operating characteristics. Include the following:
  - I. Submit detailed plans and descriptions outlining all provisions and precautions to be taken regarding the handling of existing flows. The plan shall include schedules, locations elevations, capacities of equipment, materials and all other incidental items necessary and/or required to insure proper protections of the facilities, including protection of the access and bypass pumping locations from damage due to the discharge flows, and compliance with the requirements and all permit conditions
  - II. The plan shall include but not be limited to details of the following:
- b. Staging areas for pumps;
- c. Number, size, material, location and method of installation of suction piping;
- d. Number, size, material, location of installation of discharge piping;
- e. Bypass pump sizes, capacity, number of each size to be on site and motor power of fuel requirements;
- f. Standby power generator size, location;
- g. Downstream discharge plan;

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- h. Thrust and restraint block sizes and locations;
- i. Sections showing suction and discharge pipe depth, embedment, select fill and special backfill;
- j. Method of noise control for each pump and/or generator;
- k. Any temporary pipe supports and anchoring required;
- l. Design plans and computation for access to bypass pumping locations indicated on the drawings;
- m. Calculations for selection of bypass pumping pipe size;
- n. Schedule for installation of and maintenance of bypass pumping lines;
- o. Plan indicated selection location of bypass pumping line locations.

## PART 2 - PRODUCTS

### 2.01 EQUIPMENT

- A. All pumps used for water by-pass shall be centrifugal self-priming units that do not require the use of foot-valves or Compressor in the priming system. The pumps shall be diesel or electric powered. Pumps shall have sound attenuation enclosure designed for operation at sound levels of 70 decibels and below. The Design Build Firm is fully responsible for coordinating and obtaining temporary electrical service.
- B. All pumps used must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of influent flows. The pumps shall not be hydraulic submersible type.
- C. Provide the necessary stop/start control system for each pump. The control system shall remotely alarm the Design Build Firm of any problem. The Design Build Firm is responsible for responding within one (1) hour to the alarm and correcting the problem.
- D. Discharge Piping – in order to prevent the accidental spillage of flows, all discharge systems shall be temporarily constructed of rigid pipe with positive, restrained joints.
- E. Under no circumstances will aluminum “Irrigation” type piping and glued PVC pipe be allowed. Discharge hose will only be allowed in short sections and by specific permission from the Engineer. Provide piping materials of steel pipe, ductile iron pipe, or fused, high density polyethylene pipe.

## PART 3 - EXECUTION

### 3.01 PRECAUTIONS

TEMPORARY BYPASS PUMPING

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- A. Be responsible for locating any existing utilities in the area selected for installing the bypass pipelines. Locate bypass pipelines to minimize any disturbance to existing utilities and obtain approval of the pipeline locations from the Engineer. All costs associated with relocating utilities and obtaining all approvals shall be included in the Contract Price.

### 3.02 INSTALLATION AND REMOVAL

- A. Make connections to the existing pipe lines and construct temporary bypass pumping structures only at the access location indicated on the drawings and as may be required to provide adequate suction conduit.
- B. Plugging or blocking of flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance or work, it is to be removed in a manner that permits the flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.
- C. The installation of the bypass pipelines is prohibited in all saltmarsh/wetland areas. The pipeline must be located off streets and sidewalks and on shoulder of the roads. When the bypass pipeline crosses local streets and private driveways, place the bypass pipelines in trenches and cover with temporary pavement. Upon completion of the bypass pumping operations, and after the receipt of written permission from the Engineer, remove all the piping, restore all property to pre-construction condition and restore all pavement. Be responsible for obtaining any approvals for placement of the temporary pipeline within public ways from the City.

### 3.03 FIELD QUALITY CONTROL AND MAINTENANCE

- A. Testing: Perform leakage and pressure tests of the bypass pumping discharge piping using clean water prior to actual operation. Test the piping at a test pressure of 50 psi or anticipated operating pressure multiply by a safety factor of 1.5, whichever is greater. Provide 24 hours notice to the Engineer prior to testing.
- B. Inspection: Inspect bypass pumping system as needed to ensure that the system is working correctly.
- C. Maintenance Service: Ensure that the temporary pumping system is properly maintained and a responsible operator is on hand at all times when pumps are operating.
- D. Extra Materials:

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1. Spare parts for pumps and piping shall be kept on site as required.
2. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

**END OF SECTION**

**SECTION 02150****DEWATERING****PART 1 – GENERAL****1.01 SECTION INCLUDES**

The work covered by this Section consists of furnishing all permits, labor, equipment, appliance and materials, and performing all operations required for dewatering all excavations, if required, complete.

**1.02 RELATED SECTIONS SPECIFIED ELSEWHERE**

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- B. Section 01060 – Regulatory Requirements
- C. Section 02220 – Excavation, Backfill and Compaction.

**PART 2 - PRODUCTS****2.01 TEMPORARY FACILITIES**

- A. All materials and equipment shall be suitable and adequate to function continuously as a dewatering system.
- B. All material and equipment used in the dewatering system remain the property of the Design Build Firm and shall be removed off-site when dewatering is completed.
- C. All dewatering equipment shall conform with the noise standards set forth in the City of Fort Lauderdale standards.

**2.02 SUBMITTALS**

- A. Submit the dewatering method or plan in accordance with Submittal specifications prior to commencing dewatering if it is determined by the Design Build Firm that dewatering beyond that allowed by a no-notice dewatering permit is required to construct the project.
- B. The Design Build Firm shall prepare and submit the necessary permit applications and supporting documents for the purposes of obtaining a

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dewatering permit from the South Florida Water Management District and any other required agencies.

**PART 3 - EXECUTION****3.01 METHODS**

- A. The method of dewatering is to be selected by the Design Build Firm and may include:
1. Wellpoints
  2. Sump pumps
  3. Bedding rock
  4. Dewatering wells
  5. Other approved items.

**3.02 DISCHARGE**

- A. The Design Build Firm shall provide all labor, materials, tools and equipment necessary to properly control the quality of the discharge from his dewatering operations as described herein. The Design Build Firm shall comply with all applicable laws, rules and regulations governing the discharge of water from his dewatering operations.
- B. Design Build Firm shall not discharge water in any manner that will:
1. Adversely affect water quality of nearby water bodies.
  2. Violate Federal, State or local laws or regulations.
  3. Allow discharge to flow onto private property.
  4. Hamper movement of traffic.
  5. Damage portions of the work previously constructed.
  6. Damage portions of existing facilities or structures.
  7. Violate the conditions of the SFWMD Dewatering Permit.
  8. Violate the conditions of the Stormwater Pollution Prevention Plan.
- C. Design Build Firm shall obtain and pay for any permits required to discharge the dewatering waters.
- D. Design Build Firm shall coordinate and pay for any water quality monitoring program that may be required by the applicable dewatering permit(s).

**END OF SECTION**

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## SECTION 02210

### EARTH EXCAVATION, BACKFILL, FILL AND GRADING

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

- A. Perform the following earth excavation, backfill, fill and grading as indicated or specified:
1. Make excavations to accommodate piping, conduits, foundations and other structures.
  2. Provide materials for backfilling excavations and constructing embankments and fills as indicated and specified.
  3. Construct embankments of compacted materials.
  4. Grade surfaces to meet finished grades indicated.
  5. Immediately notify the Engineer if suspected hazardous materials are encountered and cease operations in that part of work.
  6. Immediately stop work and notify the Engineer if historical artifacts or human remains are encountered.
  7. Remove boulders within the excavation limits.

##### 1.02 RELATED WORK

- A. Section 01300 – Submittals  
B. Section 01560 - Special Controls  
C. Section 02100 - Clearing and Grubbing  
D. Section 02140 - Dewatering  
E. Section 02220 - Excavation, Backfill and Compaction  
F. Section 02222 - Excavation and Backfill for Utilities  
G. Section 02223 - Excavation and Backfill for Structures

##### 1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM) Publications:
1. C33 - Specification for Concrete Aggregates.
  2. C136 - Sieve Analysis of Fine and Coarse Aggregates.
  3. D421 - Practice for Dry Preparation of Soil Samples for Particle Size Analysis and Determination of Soil Constants.
  4. D422 - Test Method for Particle-Size Analysis of Soils.
  5. D1140 - Test Method for Amount of Material in Soils Finer than the No. 200 (75 Fm) Sieve.
  6. D1556 - Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.

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7. D1557 - Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
  8. D2167 - Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
  9. D2922 - Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods. (Shallow Depth).
  10. D3017 - Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).
  11. D4318 - Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.
  12. D4718: Practice for Correction of Unit Weight and Water Content for Soils Containing Oversized Particles.
  13. D4944: Test Method for Field Determination of Water (Moisture) Content of Soil by the Calcium Carbide Pressure Tester Method.
  14. D4959: Test Method for Field Determination of Water (Moisture) Content of Soil by Direct Heating Method.
  15. D5080: Test Method for Rapid Determination of Percent Compaction.
- B. Occupational Safety and Health Administration (OSHA) Standards and Regulations contained in Title 29: Subpart P - Excavations, Trenching and Shoring.

#### 1.04 DEFINITIONS

- A. Percentage of compaction is defined as the ratio of the field dry density, as determined by ASTM D1556 to the maximum dry density determined by ASTM D1557 Procedure C, multiplied by 100.
- B. Proof Roll: Compaction with a minimum of 4 passes of a vibratory steel drum or rubber tire roller. Vibratory plate compactors shall be used in small areas where vibratory steel drum or rubber tire roller cannot be used.
- C. Acceptable Material: Material which does not contain organic silt or organic clay, peat, vegetation, wood or roots, stones or rock fragments over 6-inch in diameter, porous biodegradable matter, loose or soft fill, excavated pavement, construction debris, or refuse. Stones or rock fragments shall not exceed 40% by weight of the backfill material.
- D. Unacceptable Materials: Materials that do not comply with the requirements for the acceptable material or which cannot be compacted to the specified or indicated density.

#### 1.05 SUBMITTALS

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- A. Submit the following in accordance with Section 01300 - Submittals:
- B. Submit an excavation, backfilling, and filling plan at least two weeks prior to start of any earth moving activities. The review will be only for the information of the Owner and third parties for an overall understanding of the project relating to access, maintenance of existing facilities and proper utilization of the site. The Design Build Firm shall remain responsible for the adequacy and safety of the means, methods and sequencing of construction. The plan shall include, but not be limited to the following items:
  - C. Laboratory testing results of gradation and moisture-density relationship. Submittal shall include specific location of the source and the date when sample was taken.
  - D. During Construction, submit written confirmation of fill lift thickness, in-place soil moisture content, and percentage of compaction to the Engineer before placing the next lift or constructing foundations.

#### 1.06 QUALITY ASSURANCE AND CONTROL

- A. Provide in accordance with Section 01400 and as specified.
- B. The Design Build Firm shall be solely responsible for making all excavations in a safe manner. All excavation, trenching, and related sheeting, bracing, etc. shall comply with the requirements of OSHA excavation safety standards (29 CFR Part 1926 Subpart P) and State requirements. Where conflict between OSHA and State regulations exists, the more stringent requirements shall apply.
- C. Do not excavate, construct embankments, or fill until all the required submittals have been reviewed by the Engineer.
- D. Formulate excavation, backfilling, and filling schedule and procedures to eliminate possibility of undermining or disturbing foundations of partially and completed structures, pipelines and embankments or existing structures and pipelines.
- E. Field and Laboratory Testing and Inspections:
  - 1. Field and laboratory testing shall be performed by an independent testing laboratory (the Testing Laboratory) selected by the City. The first round of tests will be paid from the "Permit Fee and Testing Allowance".
  - 2. The location of tests shall be mutually acceptable to Testing Laboratory and the Engineer, or as directed by the Engineer.
  - 3. In the event compacted material does not meet specified in-place

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density, re-compact material and re-test this area until specified results are obtained. All costs shall be borne by the Design Build Firm at no additional cost to the City.

4. The Testing Laboratory shall perform inspections at least once daily to confirm lift thickness and compaction effort for entire fill area.

F. Methods of Field Testing

1. In-Place Density: ASTM D1556, ASTM D2167, or ASTM D2922.
2. In-Place Moisture Content: ASTM D3017, ASTM D4944, or ASTM D4959.

G. Material Testing Frequency: The following testing frequencies are minimum required for all structural and non-structural fill, grading and embankment.

1. Field In-Place Density and Moisture Content - Screened gravel and crushed stone shall be compacted as specified and indicated. For other backfill and fill materials, minimum test frequency shall be as follows, and no less than one test per:
  - a. Trenches under structures, foundation preparation, or roadways subbase: Every 500 linear foot per lift.
  - b. Trenches in areas without structures or roadways: Every 1000 linear foot per alternate lift.
  - c. Paved Roadways: Every 200 linear foot per lift.
  - d. Paved Areas: 3,500 square foot per lift.
  - e. Under each structure: 1,000 square foot per lift.
  - f. Around each structure: 1,500 square foot per lift.
  - g. Embankment Fills: 10,000 square foot per lift.
2. Moisture Density - One per source, except for screened gravel and crushed stone. Repeat the moisture density test for every 5,000 cubic yard of material use, and whenever visual inspection indicates a change in material gradation as determined by the Engineer.
3. Gradation Analysis - A minimum of one per source and for each moisture density test and whenever visual inspection indicates a change in material gradation.

H. Construction Tolerances

1. Construct finished surfaces to plus or minus 1 inch of the elevations indicated.
2. Grade cut and fill areas to plus or minus 0.20 feet of the grades indicated.



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3. Complete embankment edges to plus or minus 6 inches of the slope lines indicated.
  4. Provide the Engineer with adequate survey information to verify compliance with above tolerances.
- I. Cut pavement with a saw or pneumatic tools to prevent damage to remaining pavement without extra compensation. Where pavement is removed in large pieces, dispose of pieces before proceeding with excavation.
  - J. Pipes, drains, and other utilities may exist in certain locations not indicated on drawings. No attempt has been made to show all services. Completeness or accuracy of information given is not guaranteed. Design Build Firm is to conform with all Sunshine One Call (811) requirements.
  - K. Dig test pits considered as incidental to the normal excavation as indicated and specified in this Section, at no additional compensation.
  - L. Carefully support and protect from damage, existing pipes, poles, wires, fences, curbing, property line markers, and other structures, which the Engineer determines must be preserved in place without being temporarily or permanently relocated. Should such items be damaged, restore without compensation therefore, to at least as good condition as that in which they were found immediately before the work was begun.
  - M. Whenever certain existing structures, as described below, are encountered, and the Engineer so directs, change the location, remove and later restore, or replace such structures, or assist the Owner in doing so.
  - N. In removing existing pipes or other structures, include for payment only those new materials which are necessary to replace those unavoidably damaged as determined by the Engineer.
  - O. The preceding two paragraphs apply to pipes, wires, and other structures which meet the following: (a) are not indicated on the drawings or otherwise provided for, (b) encroach upon or are encountered near and substantially parallel to the edge of the excavation, and (c) in the opinion of the Engineer, will impede progress to such an extent that satisfactory construction cannot proceed until they have been changed in location, removed (to be later restored), or replaced.
  - P. Restore existing property or structures as promptly as practicable.
  - Q. If material unacceptable for foundation (in the opinion of the Engineer) is found at or below the grade to which excavation would normally be carried

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in accordance with the drawings and/or specifications, remove such material to the required width and depth as directed by the Engineer and replace it with screened gravel, select borrow, or concrete.

- R. Do not remove excavation materials from the site of the work or dispose of except as directed or permitted by the Engineer.
- S. Haul away and dispose of surplus excavated materials at locations directed by the Engineer at no additional cost to the Owner.
- T. During progress of work, conduct earth moving operations and maintain work site so as to minimize the creation and dispersion of dust. Furnish and spread calcium chloride if the Engineer decides that it is necessary for more effective dust control.
- U. Provide suitable and safe bridges and other crossings where required for accommodation of travel, and to provide access to private property during construction, and remove said structures thereafter.

**PART 2 - PRODUCTS****2.01 GENERAL**

- A. Use only acceptable materials from excavations or borrows.
- B. Provide 3,000 psi concrete.
- C. Provide Fine Aggregate conforming to ASTM C33.

**2.02 EQUIPMENT**

- A. The compaction equipment shall be selected by the Design Build Firm, and shall be capable of consistently achieving the specified compaction requirements. The selected compaction equipment shall meet the following minimum requirements:
  - 1. Manually operated vibratory plate compactors weighing no less than 200 pounds with vibration frequency no less than 1600 cycles per minute.
  - 2. Vibratory steel drum or rubber tire roller weighing at least 12,000 pounds.

**PART 3 - EXECUTION****3.01 SITE MAINTENANCE**

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- A. Roadway and Site Leveling: Grade roadway and site as to maintain them in a level unrutted condition and to eliminate puddling of surface and subsurface water.

### 3.02 EXCAVATION

- A. Execution of any earth excavation shall not commence until the related excavation support systems and backfill and fill materials submittals are reviewed by the Engineer and all Engineer's comments satisfactorily addressed.
- B. Carry out program of excavation, and excavation support systems to eliminate possibility of undermining or disturbing foundations of existing structures or of work previously completed under this contract.
- C. Excavate to widths that give suitable room for building structures or laying and jointing piping.
- D. Do not plow, scrape or dig by machinery near to finished subgrade in a manner that would result in disturbance of subgrade.
- E. Excavate to lines and grades indicated in an orderly and continuous program.
- F. Establish limits of excavation to allow adequate working space for installing forms and for safety of personnel.
- G. Excavate to elevations indicated, or deeper, as directed by the Engineer, to remove unacceptable material.
- H. Exercise care to preserve material below and beyond the lines of excavations.
- I. Place excavated material at the approved stockpile locations and in no case closer than 3 feet from edge of excavations to prevent cave-ins of bank slides.
- J. Regard small, less than one cubic yard, boulders, rock fragments, and concrete encountered during excavation as a normal part of in-place soils and not included for payment as rock.

### 3.03 SEPARATION OF EXCAVATED MATERIALS FOR REUSE

- A. Remove only existing pavement that is necessary for prosecution of work.
- B. Carefully remove loam and topsoil from excavated areas. Store

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separately for further use or furnish equivalent loam and topsoil as directed.

- C. Carefully remove acceptable material from excavated areas and store separately for further use as backfill material.

**3.04 TRENCH EXCAVATION**

- A. It is a basic requirement that all excavations shall be free from water before pipe or structures are installed. The Design Build Firm shall submit to the Engineer its proposed methods of handling trench water and the locations at which the water will be disposed of. Methods shall be as specified in Section 02222, Excavation and Backfill for Utilities and acceptable to the Engineer before starting the excavation.
- B. When pipe is to be laid in gravel bedding or concrete cradle, excavate trench by machinery to, or just below designated subgrade. If material remaining at bottom of trench is disturbed, re-compaction shall be required.
- C. When pipe is to be laid directly on bottom of trench, do not excavate lower part of trenches by machinery to subgrade. Remove remainder of material to be excavated just before placing of pipe by use of hand tools. Form a flat or shaped bottom, true to grade, so pipe will have a uniform and continuous bearing. Support on firm and undisturbed material between joints, except for limited areas where use of pipe slings have disturbed bottom.
- D. Depth and width of trench are to conform with OSHA and Florida Trench Safety Act requirements, whichever are more stringent.
- E. It shall be the Design Build Firm's responsibility to provide trench safety systems such as sheeting and bracing, in accordance with state, local, and OSHA regulations.

**3.05 TRENCH EXCAVATION IN FILL**

- A. Place and compact material to top of fill or to a minimum height of 1 foot above top of pipe, whichever is less, when pipe is to be laid in embankment or other recently filled material. Take particular care to ensure maximum consolidation of material under pipe location. Excavate pipe trench as though in undisturbed material.

**3.06 EXCAVATION NEAR EXISTING STRUCTURES**

- A. Discontinue digging by machinery when excavation approaches pipes,

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conduits, or other underground structures. Continue excavation by use of hand tools. Include such manual excavation in work to be done when incidental to normal excavation and under items involving normal excavation.

- B. Excavate test pits when determination of exact location of pipe or other underground structure is necessary for doing work properly.

### 3.07 REMOVAL OF SUBSURFACE OBSTRUCTIONS

- A. Remove indicated subsurface structures and related obstructions to extent shown
- B. Promptly notify the Engineer when any unexpected subsurface facilities are encountered during excavation such as utility lines and appurtenances, walls and foundations.

### 3.08 UNAUTHORIZED EXCAVATION

- A. When the bottom of any excavation for structures is taken out beyond limits indicated or specified, backfill, with screened gravel and crushed stone wrapped with non-woven geotextile fabric or with 1,500 psi (10 Mpa) concrete.

### 3.09 REUSE AND DISPOSAL OF SURPLUS EXCAVATED MATERIALS

- A. Reuse surplus acceptable excavated materials for backfill; deposit neatly and grade so as to make or widen fills, flatten side slopes, or fill depressions; or legally dispose off-site; all as directed or permitted and without additional compensation.

### 3.010 SUBGRADE PREPARATION AND PROTECTION

- A. Remove loam and topsoil, loose vegetable matter, stumps and large roots from areas upon which embankments will be built or material will be placed for grading. Shape subgrade as indicated on drawings, and prepare by forking, furrowing, or plowing so that the first layer of new material placed thereon will be well bonded to it.
- B. As directed by the Engineer, over excavate unacceptable materials below the foundation subgrade. Backfill the over excavation with compacted screened gravel or crushed stone wrapped with nonwoven geotextile fabric. In no case shall the screened gravel be placed directly on the exposed subgrade prior to placing the geotextile fabric.
- C. Proof roll the foundation subgrade prior to backfilling and filling operation

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or placing foundation concrete.

- D. Proof roll the pipe trench foundation subgrade prior to backfilling and filling operation or placing soil-supported pipeline.
- E. Utilize excavating equipment equipped with a toothless or smooth edged, excavating bucket to expose the pipe trench foundation subgrade to avoid disturbance of the bearing surface. Tamp the exposed subgrade with the excavating bucket prior to backfilling and filling operation or placing soil-supported pipeline.

### 3.011 CARE AND RESTORATION OF PROPERTY

- A. Enclose uncut tree trunks adjacent to work in wooden boxes of such height as may be necessary for protection from injury from piled material, equipment, operations, or otherwise due to work. Operate excavating machinery and cranes of suitable type with care to prevent injury to trees not to be cut and particularly to overhanging branches and limbs.
- B. Cut all branches, limbs, and roots smoothly and neatly without splitting or crushing. Neatly trim, cut the injured portions and cover with an application of grafting wax or tree healing paint as directed.
- C. Protect cultivated hedges, shrubs, and plants which might be injured by the Design Build Firm's operations by suitable means or dig up and temporarily replant and maintain. After construction operations have been substantially completed, replant in original positions and care for until growth is reestablished. If cultivated hedges, shrubs, and plants are injured to such a degree as to effect their growth or diminish in their beauty or usefulness, replace by items of equal kind and quality existing at the start of the work.
- D. Do not use or operate tractors, bulldozers, or other power-operated equipment on paved surfaces when their treads or wheels of which are so shaped as to cut or otherwise damage such surfaces.
- E. Restore surfaces damaged by the Design Build Firm's operations to a condition at least equal to that in which they were found immediately before work commenced. Use suitable materials and methods for such restoration.

### 3.012 BACKFILLING - GENERAL

- A. Do not place, spread, roll or compact fill material during unfavorable weather conditions. If interrupted by heavy rain or other unfavorable conditions, do not resume until ascertaining that the moisture content and

density of the previously placed soil are as specified.

- B. Do not use puddling, ponding or flooding as a means of compaction.

### **3.013 MATERIAL PLACEMENT AND COMPACTION REQUIREMENTS**

- A. Select Borrow, and Fine Aggregate

1. Dump and spread in layers not to exceed 8 inches uncompacted thickness.
2. Compacted fill and backfill under structures and used for pipe bedding (from below pipe to spring line) shall be as indicated but not less than 95%. Other areas to be compacted to not less than 90% unless otherwise indicated.

- B. Screened Gravel and Crushed Stone

1. Dump and spread in layers not to exceed 8 inches. uncompacted thickness.
2. Compact using self-propelled vibratory steel drum or rubber tire rollers with a minimum of 4 passes in directions perpendicular to one another in open areas. In small areas, use manually operated vibratory plate compactors with a minimum of 4 passes.

- C. Bank-run Gravel and Acceptable materials for use as non-structural fill

1. Dump and spread in layers not to exceed 12 inches uncompacted thickness.
2. Compact to not less than 90% unless otherwise indicated.

- D. Backfilling and filling operation shall be suspended in areas where tests are being made until tests are completed and the Testing Laboratory has advised the Engineer that adequate densities are obtained.

### **3.014 STRUCTURAL FILL AND BACKFILL UNDER STRUCTURES**

- A. Compact fill and backfill under structures and pavements with screened gravel, crushed stone, select borrow, or fine aggregate as specified and indicated.

### **3.015 NON-STRUCTURAL BACKFILL AROUND STRUCTURES**

- A. Use acceptable materials for non-structural backfill around structures and compacted as specified and indicated.
- B. Conduct hydraulic testing as soon as practicable after structures are

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constructed and other necessary work has been done. Start backfilling promptly after completion of tests.

- C. Deposit material evenly around structure to avoid unequal soil pressure.
- D. Do not place backfill against or on structures until they have attained sufficient strength to support the loads (including construction loads) to which they will be subjected, without distortion, cracking, or other damage.

**3.016 BACKFILLING PIPE TRENCHES**

## A. General

- 1. Begin backfilling and proceed until completed after: the pipes and conduits have been laid, joints have acquired maximum degree of hardness, pipelines and conduits have successfully passed tests and inspections as required in the Specifications, and concrete or masonry structures within the trench have reached their design strength to support all loads.
- 2. Backfill and compact indicated material under, around, and above pipes, conduits, and other structures to the indicated or specified compaction density requirement. Utilize compaction devices which will not damage the pipe, conduit, or structure within the trench.
- 3. Do not drop backfill material into trench from a height of more than 5 feet or in a manner which will damage the pipe, conduit, or other structure within trench.

## B. Pipe Trenches

## 1. Materials

- a. From below pipe to 1 foot above top of pipe: Use screened gravel or crushed stone if the pipe is below the ground water table, or clean sand if above the water table, unless otherwise indicated.
- b. One foot above top of pipe to finished grade or to pavement subbase: Use clean well graded fill or acceptable materials, unless otherwise indicated.

- 2. Compacting Around Pipes: Compact material around circumference of pipe and the area between the trench wall and the pipe by hand tamping in 6 inches layers.
- 3. Compacting Above Pipe: Compact material by hand tamping. If trench width is wide enough to accommodate power tools and the compacted material over the pipe will support the load of the power tools without damage to the pipe, use rollers or other powered



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compaction equipment able to more readily achieve compaction requirements.

4. Bedding and initial backfill for polyethylene (pe) shall be sand.

### **3.017 MATERIAL FOR FILLING AND EMBANKMENTS**

- A. Use acceptable materials for filling and building embankments unless otherwise indicated.

### **3.018 PLACING AND COMPACTING EMBANKMENT MATERIAL**

- A. Compact fill material as specified and indicated.
- B. Perform fill operation in an orderly and systematic manner using equipment in proper sequence to meet the specified compaction requirements.
- C. Place fill on surfaces which are free of unacceptable materials.
- D. Begin filling in lowest section of work area. Grade surface of fill approximately horizontal but provide with sufficient longitudinal and transverse slope to allow for runoff of surface water from every point.
- E. Conduct filling so that no obstruction to drainage from other sections of fill area is created at any time.
- F. Reduce moisture content of fill material, if necessary, in source area by working it over under warm and dry atmospheric conditions. A large disc harrow with two to three foot diameter disks may be required for working soil in a drying operation.
- G. Compact uniformly throughout. Keep surfaces of fill reasonably smooth and free from humps and hollows which would prevent proper and uniform compaction. Do not permit hauling equipment to follow a single track on the same layer but direct equipment to spread out to prevent overcompaction in localized areas. Take care in obtaining thorough compaction at edges of fill.
- H. Slightly slope surface of fill to ensure drainage during periods of wet weather. Do not place fill while rain is falling or after a rain-storm until the Engineer considers conditions satisfactory. During such periods and upon suspension of filling operations for any period in excess of 12 hours, roll smooth the surface of fill using a smooth wheel static roller to prevent excessive absorption of rainfall and surface moisture. Prior to resuming compaction operations, remove muddy material off surface to expose firm, compacted material, as determined by the Engineer.

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- I. When fill is placed against an earlier fill or against in-situ material under and around structures, including around piping beneath structures or embankments, slope junction between two sections of fill, 1 vertical to 1.5 horizontal. Bench edge of existing fill 24 inches to form a serrated edge of compact stable material against which to place the new fill. Ensure that rolling extends over junction between fills.
- J. When fill is placed directly upon another older fill, clean surface thoroughly of debris and remove any loose material. Then proof roll the entire old surface.
- K. After spreading each loose lift to the required thickness and adjusting its moisture content as necessary, roll with sufficient number of passes to obtain the required compaction. One pass is defined as the required number of successive trips which by means of sufficient overlap will insure complete coverage and uniform compaction of an entire lift. Do not make additional passes until previous pass has been completed.
- L. In case material of any fill sinks and weaves under roller or under hauling units and other equipment, required degree of compaction is not being obtained. Reduce the moisture content. If such sinking and weaving produces surface cracks, suspend operations on that part of the embankment until it becomes sufficiently stabilized. Ideal condition in fill is that attained when the entire fill below the surface being rolled is so firm and hard as to show only the slightest weaving and deflection as roller passes. Spread out rolling operations over the maximum practicable area to minimize condition of sinking and weaving.
- M. If because of defective workmanship, compaction obtained over any area is less than that required, remedy condition at no cost to Owner. If additional rolling or other means fail to produce satisfactory results, remove material in that area down to a level of satisfactory density. Perform removal, replacement, and rerolling without additional compensation

**3.019 COMPACTION CONTROL OF BACKFILL, FILL, AND EMBANKMENT**

- A. Compact to density specified and indicated for various types of material. Control moisture content of material being placed as specified or if not specified, at a level slightly lower than optimum.
- B. The Testing Laboratory shall provide inspection during filling or backfilling operations to ensure compaction of screened gravel or crushed stone and record compaction equipment in use.

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- C. Moisture control may be required either at the stockpile area, pits, or on embankment or backfill. Increase moisture content when material is too dry by sprinkling or other means of wetting uniformly. Reduce moisture content when material is too wet by using ditches, pumps, drainage wells, or other devices and by exposing the greatest possible area to sun and air in conjunction with harrowing, plowing, spreading of material or any other effective methods.

### 3.020 ALLOWANCE FOR SHRINKAGE

- A. Build embankments or backfill to a height above finished grade which will, in the opinion of the Engineer, allow for the shrinkage or consolidation of material. Initially, provide at all points, an excess of at least 1% of total height of backfill measured from stripped surface to top of finished surface.
- B. Supply specified materials and build up low places as directed, without additional cost if embankment or backfilling settles so as to be below the indicated level for proposed finished surface at any time before final acceptance of the work.

### 3.021 SITE GRADING

- A. Fill and contour site areas with Earthfill material to elevations shown and as required to prepare the site for landscape grading and sodding.
- B. Place materials in maximum 8 inch loose lifts and compact as required to limit subsequent settlement.

### 3.022 COMPACTION TESTING

- A. In-situ compaction testing shall be performed by a certified laboratory.
- B. Compaction testing shall be done by nuclear density equipment or other approved methods. (ASTM D-2937, D-1557, D-6938)
- C. Density testing shall be performed as follows:
1. Pipe Trenches: 1 test per lift per 100 feet of pipe.
  2. Fill Under/Around Structures: 1 test per lift under each structure or 1 backfill test per lift per drainage or sanitary structure installed.
  3. Fill Under Pavement Areas: 1 test per lift per 2,000 square feet of compacted surface area.
- D. Test results in a specific location are only representative of a larger area if the Design Build Firm has used consistent compaction means and

methods and the soils are practically uniform throughout. If it is determined by the Owner/Engineer that there are variations in the compaction methods and/or soil uniformity, additional testing may be required.

### **3.023 FINAL AND FINISH GRADING**

- A. Using clean topsoil, perform all final and finish grading in all yard and planting areas. Topsoil shall be placed to a minimum of 4" thickness, rototilled to a minimum depth of 8", leveled and finish graded in all areas. No pavement base course material or broken asphalt will be allowed as topsoil materials in landscaping areas.
- B. Finish grades (top of the soil) shall be approximately 1-1/2" below edges of pathways, curbs and other paved or concrete slabs. After sod installation, the top of the sod shall not be more than 1/2" below or shall be flush with the grade established by any adjacent paved or curbed surface.
- C. The Design Build Firm shall verify that all finish subgrades are correct prior to beginning installation of sod and planting materials. Upon completion of the project work, the Design Build Firm shall prepare "record drawings" verifying that all finish grades are in accordance with the contract documents and shall submit same to the Engineer for review and acceptance prior to requesting final inspection of the project. The "record drawings" shall be prepared by a surveyor registered in the State of Florida.
- D. Upon project completion, all areas of site within immediate construction and adjacent areas shall be completely cleaned of all debris.
- E. All areas adjacent to site and all areas not within contract construction areas shall be left in reasonably same condition as they were found prior to commencement of construction.
- F. Any damage to the existing adjacent facilities including adjacent lakes or roads, and related areas such as, but not limited to, finish grades, slopes, grass sod, structures, pipe, etc. shall be repaired and restored to a proper and appropriate condition acceptable to the Owner and Engineer.

**END OF SECTION**

**SECTION 02220****EXCAVATION, BACKFILL AND COMPACTION****PART 1 - GENERAL****1.01 WORK INCLUDED**

- A. The work included under this section consists of excavating, grading, backfilling and compacting for general construction.
- B. Excavation shall include the removal of all material of whatever nature encountered, including all obstructions of any nature that would interfere with the proper execution and completion of the work. The removal of said material shall conform to the lines and grades indicated.
  - 1. When excavations are to be made in paved surfaces, the pavement shall be saw-cut ahead of the excavation by means of suitable sharp tools to provide a uniform sharp edge, with minimum disturbance of remaining material.

**1.02 RELATED WORK**

- A. Section 02222 - Excavation and Backfill for Utilities
- B. Section 02223 - Excavation and Backfill for Structures

**1.03 PROTECTION**

- A. It shall be the Design Build Firm's responsibility to provide trench safety systems, such as sheeting and bracing, in accordance with state, local and OSHA regulations.
- B. Excavations
  - 1. Notify Engineer of unexpected subsurface conditions and discontinue work in affected area until notification to resume work.
  - 2. Provide and maintain adequate barricades and warning lights to protect open trenches.
  - 3. All trenches shall be fully backfilled at the end of each day.
- C. Existing Utilities

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1. Those existing utilities that are to be retained shall be protected, and if damaged, shall be repaired by the Design Build Firm at no additional cost to the City.
  2. The Design Build Firm shall notify CALL SUNSHINE at their toll-free number 1-800-432-4770 and/or each utility individually, forty-eight (48) hours prior to any excavation.
- D. Design Build Firm shall exercise care during excavation in areas of environmental sensitivity and advise the project engineer if any hazardous material is encountered.

## PART 2 - PRODUCTS

### 2.01 MATERIAL

- A. Material shall comply with Section 125-8 of the FDOT specifications for Road and Bridge Construction, the drawings and other contract documents.
- B. Material used for backfill shall be select granular material, free from grass, roots, brush or other vegetation, rubbish, clay, marl, lumps of broken paving or boulders having maximum dimension larger than six (6") inches. Unsuitable material shall be removed from the site at the Design Build Firm's expense away from the project.
- C. Material coming within one foot (1'-0") of any structure or pipe shall be free of rocks or unbroken masses of earthy material having maximum dimension larger than two inches (2").
- D. Suitable for Fills: Material classified as A-1, A-3, or A-2-4 under AASHTO M 145, free from vegetation and organic material, and with not more than 10 percent by weight passing the No. 200 sieve.
- E. Unsuitable for Fills: Materials classified as A-2-5, A-2-6, A-2-7, A-4, A-5, A-6, A-7 and A-8 under AASHTO M 145.
- F. Select Material: Suitable material containing no pieces or rock fragments larger than will pass a 3-inch diameter ring.

## PART 3 - EXECUTION

### 3.01 EXCAVATION

- A. Work shall comply with Section 120 of the FDOT Standard Specifications for Road and Bridge Construction.

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## B. Trench and Excavation:

1. Work shall comply with Section 125 of the FDOT Standard Specifications for Road and Bridge Construction.
2. The maximum amount of open trench permitted in any one (1) location shall be one hundred feet (100'), unless the trench is located within a State or County right-of-way, in which case the requirement would defer to the more stringent of those agencies.
3. All trenches shall be fully backfilled at the end of each day or, in lieu thereof, when approved by the Engineer, heavy steel plate adequately braced and capable of supporting vehicular traffic may be used in certain locations where it is impractical to backfill at the end of each day.

## C. Over-excavation When Ordered:

1. Trenches shall be over-excavated beyond the depth shown, when ordered by the Engineer. Such over-excavation shall be to the depth ordered.
2. The trench shall be refilled to the grade of the bottom of the pipe with either selected granular material obtained from the excavation, sand or crushed rock, at the option of the Engineer. When crushed rock bedding is ordered, the material shall be a well-graded material with maximum particle size of three-quarters of an inch (3/4").
3. Bedding material shall be placed in layers, brought to optimum moisture content, and compacted to ninety-five percent (95%) of maximum density.

## D. Over Excavation not Ordered, Specified or Shown:

1. Any over-excavation carried below the grade ordered, specified or shown, shall be refilled to the required grade with suitable selected granular material.
2. Refilled material shall be moistened as required and compacted to ninety-five percent (95%) of maximum density.
3. Work required due to over excavation when not ordered shall be performed by the Design Build Firm at his own expense.

## E. Disposal of Excess Excavated Material:

1. The Design Build Firm shall remove and dispose of all excess excavated material at his own expense, in accordance with the General Conditions.

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2. All excess suitable material that cannot be used as fill on the site(s), is to remain property of the City and shall be removed by the Design Build Firm to a disposal site(s) as directed by Engineer.
3. All materials suitable for use as backfill shall be hauled to and used in areas where not enough suitable material is available from the excavation.
4. Unsuitable material such as trees, shrubs, etc. shall be the Design Build Firm's responsibility to load, haul and provide a disposal site.

### 3.02 BACKFILLING

- A. Work shall comply with Section 125-8 of the FDOT Specifications for Road and Bridge Construction, the drawings and all other contract documents.
- B. Backfill shall not be dropped directly upon any structure or pipe.
- C. Backfill shall not be placed around or upon any structure until the concrete has attained sufficient strength to withstand the loads imposed.
- D. Backfill around and beneath structures, and beneath paved areas:
  1. Except where otherwise specified for a particular structure or ordered by the Engineer, backfill placed around and beneath structures, and beneath paved areas, shall be placed in horizontal layers not to exceed eight inches (8") in thickness, as measured before compaction.
  2. The backfill shall be brought up evenly with each layer moistened and compacted by mechanical means to ninety-five percent (95%) of maximum density.

### 3.03 COMPACTION TESTING

- A. Compaction testing specified herein are expressed as a percentage of maximum density. Maximum density shall be determined by AASHTO T-180, Method D.
- B. Compaction density tests shall be scheduled by the Engineer. Design Build Firm shall give notice to the Engineer 24 hours in advance of required density tests.
- C. Trench backfill which does not comply with the specified densities, as indicated by such tests, shall be reworked and recompacted until the required compaction is secured, at no additional cost to the City.

### END OF SECTION

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## SECTION 02222

### EXCAVATION AND BACKFILL FOR UTILITIES

#### PART 1 - GENERAL

##### 1.01 THE REQUIREMENT

- A. Excavate, grade and backfill as required for underground piping systems and appurtenances as shown on the Drawings and specified herein.

##### 1.02 RELATED WORK

- A. Section 02210 – Earth Excavation, Backfill, Fill and Grading

##### 1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Commercial Standards:
1. ASTM C33 Standard Specification for Concrete Aggregates
  2. ASTM D 422 Method for Particle-Size Analysis of Soils.
  3. ASTM D 698 Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5-lb (2.49-kg) Rammer and 12-in (304.8-mm) Drop
  4. ASTM D 1556 Test Method for Density of Soil in Place by the Sand-Cone Method.
  5. ASTM D 1557 Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb (4.54-kg) Rammer and 18-in (457-mm) Drop.
  6. ASTM D 2419 Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
  7. ASTM D 2922 Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

##### 1.04 SUBMITTALS

- A. Submit information and samples to the Engineer for review as specified herein in accordance with Section 01300 – Submittals.
- B. Dewatering: The Design Build Firm shall submit to the Engineer its proposed methods of handling trench water and the locations at which the water will be disposed of. Methods shall be acceptable to the Engineer before starting the excavation.
- C. Bedding and Backfill Materials: The Design Build Firm shall notify the Engineer of the off-site sources of bedding and backfill materials, and

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submit to the Engineer a representative sample weighing approximately 50 lbs. The sample shall be delivered to a location on site determined by the Engineer.

- D. Sheeting System: Drawings of the sheeting system and design computations shall be submitted to the Engineer; however, the review of these drawings shall in no way relieve the Design Build Firm of the responsibility to provide a safe and satisfactory sheeting and shoring system. Sheeting and shoring shall be designed by the Design Build Firm, and the proposed design shall be sealed by a Professional Engineer registered in the State of Florida. If the Engineer is of the opinion that at any point sufficient or proper supports have not been provided, it may order additional supports put in at the Design Build Firm's expense.
- E. Dewatering Permits: If the quantity or nature of water withdrawn requires approval/permits from regulatory agencies, the Design Build Firm shall procure such permits at its expense and submit copies to the Engineer before commencing the work. The Design Build Firm will not be granted contract time extensions due to dewatering permit processing delays.

### 1.05 QUALITY CONTROL

- A. An independent testing laboratory (Testing Laboratory) will be selected by the City to perform field and laboratory soil testing as described in Section 01410, "Testing and Inspection". The cost of the first round of tests will be paid from the "Permit Fee and Testing Allowance". The costs of subsequent re-compaction and retesting resulting from not achieving the required minimum compaction shall be borne by the Design Build Firm at no additional cost to the City.
- B. The Design Build Firm shall schedule its work so as to permit a reasonable time for testing before placing succeeding lifts and shall keep the Testing Laboratory informed of his progress. A minimum of 48 hours of notice shall be provided to the Testing Laboratory to mobilize its activities.

### 1.06 SUBSURFACE INFORMATION

- A. The Design Build Firm shall be responsible for anticipating groundwater conditions and shall provide positive control measures as required. Such measures shall ensure stability of excavations, groundwater pressure control, prevention of tanks, pipes, and other structures from being lifted by hydrostatic pressures, and avoiding the disturbance of subgrade bearing materials.

### 1.07 TRENCH SAFETY ACT COMPLIANCE

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- A. It shall be the Design Build Firm's responsibility to provide trench safety systems, such as sheeting and bracing, in accordance with state, local and OSHA regulations.
- B. The Design Build Firm by signing and executing the contract is, in writing, assuring that it will perform any trench excavation in accordance with the Florida Trench Safety Act, Section 553.60. The Design Build Firm has further identified the separate item(s) of cost of compliance with the applicable trench safety standards as well as the method of compliance as noted in the "Bid Forms" Section of the Contract front-end documents.
- C. The Design Build Firm acknowledges that this cost is included in the applicable items of the Proposal and Contract and in the Grand Total Bid and Contract Price.
- D. The Design Build Firm is, and the City and Engineer are not, responsible to review or assess the Design Build Firm's safety precautions, programs or costs, or the means, methods, techniques or technique adequacy, reasonableness of cost, sequences or procedures of any safety precaution, program or cost, including but not limited to, compliance with any and all requirements of Florida Statute Section 553.60 et. seq. cited as the "Trench Safety Act". The Design Build Firm is, and the City and Engineer are not, responsible to determine if any safety or safety related standards apply to the project, including but not limited to, the "Trench Safety Act".

### 1.08 PROTECTION OF PROPERTY AND STRUCTURES

- A. The Design Build Firm shall, at its own expense, sustain in place and protect from direct or indirect injury, all pipes, poles, conduits, walls, buildings, and all other structures, utilities, and property in the vicinity of its Work. Such sustaining shall be done by the Design Build Firm. The Design Build Firm shall take all risks attending the presence or proximity of pipes, poles, conduits, walls, buildings, and all other structures, utilities, and its Work. It shall be responsible for all damage, and assume all expenses, for direct or indirect injury and damage, caused by its Work, to any such pipe, structures, etc., or to any person or property, by reason of injury to them, whether or not such structures, etc., are shown on the Drawings.
- B. Barriers shall be placed at each end of all excavations and at such places as may be necessary along excavations to warn all pedestrian and vehicular traffic of such excavations. Barricades with flashing lights shall also be placed along excavation from sunset each day to sunrise of the next day until such excavation is entirely refilled, compacted, and paved.

All excavations shall be barricaded where required to meet OSHA, local and Federal Code requirements, in such a manner to prevent persons from falling or walking into any excavation within the site fenced property limits.

**1.09 DEWATERING PERMITS**

- A. The Design Build Firm shall be responsible for obtaining all permits required for the dewatering operation.

**PART 2 - PRODUCTS**

**2.01 BEDDING MATERIAL**

- A. Bedding materials shall be furnished from acceptable off-site sources. The Design Build Firm shall submit to the Engineer the sources of each material for review in accordance with Section 01300, "Submittals".
- B. Crushed stone (or drainfield limerock) shall be used as bedding material for piping (except for copper pipe) and/or manholes as shown on the Standard Details when the installation is below the ground water table elevation. Crushed stone shall consist of hard, durable, sub-angular particles of proper size and gradation, and shall be free from organic material, wood, trash, sand, loam, clay, excess fines, and other deleterious materials.
  - 1. For pipe diameters less than 24 inches, the stone shall conform to the requirements of ASTM C 33, Size No. 57 (3/4-inch rock) and be graded within the following limits:

Sieve Size    Percent Finer by Weight

1 – ½ inch	100
1 inch	95 – 100
½ inch	25 – 60
No 4	0 – 10
No. 8	0 - 5

- 2. For bedding of 24 inch and larger diameter pipe, the stone shall conform to the requirements of ASTM C 33 and be graded within the following limits:

Sieve Size    Percent Finer by Weight

5/8 inch	100
½ inch	40 – 100

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3/8 inch	15 – 45
No 10	0 – 5

- C. Sand shall be used for bedding pipe when installed under dry trench conditions, or above the ground water table. Sand shall also be used for bedding copper pipe under all conditions. Sand shall be dry, screened, graded sand with 100 percent passing a 3/8-inch sieve and not more than 5 percent passing a No. 200 sieve.
- D. Limerock screenings, sand or other fine material shall not be used for bedding.
- E. All pipe bedding material shall be new, unless otherwise approved by the Engineer. Existing pipe bedding material may not be used.
- F. Bedding and initial backfill for polyethylene (pe) shall be sand.

**2.02 SELECT BACKFILL**

- A. Select Backfill: Select backfill shall be clean sandy material passing through a 3/4-inch sieve as select backfill material.

**2.03 GENERAL BACKFILL**

- A. All other backfill (general backfill) placed above the select backfill shall pass through a 6-inch ring. General backfill shall contain no more than 10 percent organics. General backfill used under roadways shall be compatible with the materials and compaction specified under Section 02510 – Asphaltic Concrete Pavement and 02526 – Concrete Pavement, Curbs and Sidewalks.

**PART 3 - EXECUTION****3.01 EXCAVATION**

- A. The Design Build Firm shall perform all excavation of every description and of whatever substance encountered, to the dimensions, grades and depths shown on the Drawings, or as required for a proper installation. All excavations shall be made by open cut and in accordance with the Trench Safety Act. All existing utilities such as pipes, poles and structures shall be carefully located, supported and protected from injury; in case of damage, they shall be restored at the Design Build Firm's expense.
- B. Pipe trenches for piping shall be excavated to a width within the limits of the top of the pipe and the trench bottom so as to provide a clearance on each side of the pipe barrel, measured to the face of the excavation, or

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sheeting if used, of 6 inches to 12 inches as defined on the Drawings. All pipe trenches shall be excavated to a level where suitable material is reached, a minimum of 8 inches below the pipe barrel or that will allow for a minimum of 36 inches of covering unless otherwise indicated on the Drawings.

- C. Ladders or steps shall be provided for and used by workmen to enter and leave trenches.
- D. Excavated unsuitable material shall be removed from the site and disposed of by the Design Build Firm. Materials removed from the trenches shall be stored in such a manner that will not interfere unduly with traffic on public roadways and sidewalks and shall not be placed on private property. In congested areas, such materials that cannot be stored adjacent to the trench or used immediately as backfill shall be removed to other convenient places of storage acceptable to the City at the Design Build Firm's expense.
- E. Excavated material that is suitable for use as backfill shall be used in areas where sufficient material is not available from the excavation. Suitable material in excess of backfill requirements shall be disposed off-site at the Design Build Firm's expense.

**3.02 SHEETING AND BRACING**

- A. The Design Build Firm shall furnish, place and maintain sheeting and bracing to support sides of the excavation as necessary to provide safe working conditions in accordance with OSHA requirements, and to protect pipes, structures and other Work from possible damage. Where wood sheeting or certain designs of steel sheeting are used, the sheeting shall be cut off at a level of 2 feet above the top of the installed pipe and that portion below the level shall be left in place. If interlocking steel sheeting is used, it may be removed providing removal can be accomplished without disturbing the bedding, pipe or alignment of the pipe. Any damage to the pipe bedding, pipe or alignment of the constructed utility caused by the removal of sheeting shall be cause for rejection of the affected portion of the work. The City may permit sheeting to be left in place at the request and expense of the Design Build Firm, or the City may order him in writing to leave in place, for the preventing of damage to structures or property. Payment for sheeting ordered to remain in place shall be paid for at a negotiated price.
- B. If the Engineer is of the opinion that at any point sufficient or proper supports, have not be provided, he may order additional supports put in at the Design Build Firm's expense. The Design Build Firm shall be responsible for the adequacy of all sheeting used and for all damage

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resulting from sheeting and bracing failure or from placing, maintaining and removing it.

### 3.03 REMOVAL OF WATER

- A. General: It is a basic requirement of these Specifications unless otherwise authorized per Article 3.09 that excavations shall be free from water before pipe or structures are installed.
- B. The Design Build Firm shall provide pumps, and other appurtenant equipment necessary to remove and maintain water at such a level as to permit construction in a dry condition. The Design Build Firm shall continue dewatering operations until backfilling has progressed to a sufficient depth over the pipe to prevent flotation or movement of the pipe in the trench or so that it is above the water table. If at any point during the dewatering operation it is determined that fine material is being removed from the excavation sidewalls, the dewatering operation shall be stopped. If any of the subgrade or underlying material is disturbed by movement of groundwater, surface water, or any other reason, it shall be replaced at the Design Build Firm's expense with crushed stone or gravel.
- C. The Design Build Firm shall use dewatering systems that include automatic starting devices, and standby pumps that will ensure continuous dewatering in the event of an outage of one or more pumps.
- D. Disposal: Water from the trenches and excavation shall be disposed of in such a manner as will not cause injury to public health, to public or private property, to the Work completed or in progress, to the surface of the streets, cause any interference with the use of the same by the public, or cause pollution of any waterway or stream. The Design Build Firm shall submit his proposed methods of handling trench water and locations at which the water will be disposed of to the Engineer for review and shall receive acceptance before starting the excavation. Disposal to any surface water body will require silt screens to prevent any degradation in the water body. The Design Build Firm shall have responsibility for acquiring all necessary permits for disposal.

### 3.04 TRENCH STABILIZATION

- A. No claim for extras, or additional payment will be considered for cost incurred in the stabilization of trench bottoms which are rendered soft or unstable as a result of construction methods, such as improper or inadequate sheeting, dewatering or other causes. In no event shall pipe be installed when such conditions exist and the Design Build Firm shall correct such conditions so as to provide proper bedding or foundations for the proposed installation at no additional cost to the City before placing

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the pipe or structures.

### 3.05 PIPE BEDDING IN DRY TRENCHES

- A. Pipe trenches shall be excavated as described in Article 3.01. The resulting excavation shall be backfilled with acceptable pipe bedding material, up to the level of the centerline of the proposed pipe barrel. This backfill shall be tamped and compacted to provide a proper bedding for the pipe and shall then be shaped to receive the pipe. Bedding shall be provided under the branch of all fittings to furnish adequate support and bearing under the fitting.
- B. Any over excavation below the levels required for installation of the pipe shall be backfilled with acceptable bedding material, tamped, compacted and shaped to provide proper support for the proposed pipe, at the Design Build Firm's expense.

### 3.06 BACKFILL

- A. The Design Build Firm shall not backfill trenches until the piping has been inspected and tested as specified.
- B. Pipelines: Pipeline trenches shall be backfilled to a level 12 inches above the top of the pipe with select backfill. When placed in the dry, such material shall be placed in 9-inch layers, each compacted to the densities specified in Article 3.07. Only hand operated mechanical compacting equipment shall be used within six inches of the installed pipe.
- C. After the select backfill has been placed as specified above, and after all excess water has completely drained from the trench, general backfilling of the remainder of the trench may proceed. General backfill shall be placed in horizontal layers, the depth of which shall not exceed the ability of the compaction equipment employed, and in no event shall exceed a depth of 12 inches. Each layer shall be moistened, tamped, puddled, rolled or compacted to the densities specified in Article 3.07.
- D. Manholes and Vaults: Any excavation below the levels required for the proper construction of manholes or vaults shall be filled with Class B concrete. The use of earth, rock, sand or other materials for this purpose will not be permitted.

### 3.07 COMPACTION AND DENSITIES

- A. Compaction of backfill shall be 98% of the maximum density where the trench is located under structures or paved areas, and 95% of the maximum density elsewhere. Methods of control and testing of backfill

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construction are:

1. Maximum density of the material in trenches shall be determined by ASTM D 1557.
  2. Field density of the backfill material in place shall be determined by ASTM D 1556 or D 2922.
- B. Density Test Locations for Pipelines: The compacted backfill/fill shall be tested for in-place density at the rate of one test location per 200 lineal feet (or fraction thereof) of trench, or as shown on the Drawings or as directed by the Engineer. The density tests shall be taken at the trench bottom and at each location in one foot intervals beginning from the top of the piping and ending at the final grade. At existing road or pavement crossings, a minimum of two (2) density tests per crossing per lift is required.
- C. Trench backfill which does not comply with the specified densities, as indicated by such tests, shall be reworked and recompacted until the required compaction is secured, at no additional cost to the City. The costs for retesting such Work shall be paid for by the Design Build Firm.

### 3.08 ADDITIONAL EXCAVATION AND BACKFILL

- A. Where organic material, such as roots, muck, or other vegetable matter, or other material which, in the opinion of the Engineer, will result in unsatisfactory foundation conditions, is encountered below the level of the proposed pipe bedding material, it shall be removed to a depth of two feet below the outside bottom of the pipe or to a greater depths as directed by the Engineer and removed from the site. Sheeting shall be installed if necessary to maintain pipe trenches within the limits identified by the Engineer. The resulting excavation shall be backfilled with suitable backfill material, placed in 12-inch layers, tamped and compacted up to the level of the bottom of the proposed pipe bedding material. Sufficient compaction of this material shall be performed to protect the proposed pipe against settlement. Lean concrete may be used in lieu of backfill when pipe installation is in the wet or at the Design Build Firm's option. Construction shall then proceed in accordance with the provisions of Article 3.05.
- B. Additional excavation (more than two feet below the pipe) shall be performed when ordered by the Engineer. Where organic or other material is encountered in the excavation, the Design Build Firm shall bring the condition to the attention of the Engineer and obtain his determination as to whether or not the material will require removal, prior to preparing the pipe bedding. The excavation of material up to a depth of two feet below the outside bottom incidental items of construction and the

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Work shall be done at no additional cost to the City. Where ordered by the Engineer, excavation greater than two feet below the pipe, backfill and additional sheeting, will be compensated by the City.

### 3.09 ALTERNATE METHOD OF CONSTRUCTION

- A. Use of This Method: A combination of conditions in the substrate, water table, or method of disposal may be encountered during the course of the work which makes dewatering impossible. When such conditions are encountered, but only after all reasonable means (pumps, well points, etc.) to dewater the excavation have been employed without success, the Design Build Firm, may request to employ the following Alternate Method of Construction. The concurrence of the Engineer shall be obtained in writing and shall limit the use of the alternate method of construction to such specific portions of the Work as the Engineer shall determine.
- B. The requirements set forth in other sections of these Specifications shall establish the required standards of construction quality for this work. Use of the alternate method of construction described hereinafter shall in no way be construed as relieving the Design Build Firm of the work. No additional payment will be made to the Design Build Firm for excavation, backfill, sheeting or any cost incurred for Work or materials, or any other costs incurred as a result of the use of this alternate method of construction. The prices established in the Proposal shall be for full payment for the various items of work.
- C. Subject to all the requirements stated herein, including written acceptance of the Engineer, construction will be permitted in accordance with the following specifications. All requirements of these Specifications shall apply to this construction unless otherwise specifically modified herein.
- D. Removal of Water: The installation of pipe and appurtenances under water will be permitted and the requirements of Article 3.03 will be waived.
- E. Excavation shall be performed in accordance with Article 3.01 to the specified limits. The excavation shall be completely cleaned of silt and other fines.
- F. Pipe Bedding: Pipe bedding shall be placed from the bottom of the excavation to six inches above the top of the pipe. The bedding material shall be screened gravel or crushed stone as specified in Article 2.01. Limerock screenings, sand or other fine organic material shall not be used.
- G. The bedding material shall be placed to the lower third of the pipe barrel and then be shaped to receive the pipe at the intended elevation. Bedding shall be provided under the branch of all fittings to furnish adequate support and bearing under the fitting. After the pipe section is installed

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- and tested if required, the remaining bedding shall be placed to the top of the pipe.
- H. Select backfill material shall be used to backfill from 6 inches above the top of the pipe to a level one foot above standing ground water. The lift shall then be compacted per Article 3.07. General backfill shall then be placed in 8-inch lifts and compacted per Article 3.07.
- I. If the Alternate Method of Construction is used, all backfill material, including specified pipe bedding material, shall be carefully lifted into the trench and not released to fall freely therein until the bucket or container is at or just above water level. Under no circumstances shall backfill material be dumped or pushed into the trenches containing water. Below water level, the bedding and backfill material shall be carefully rammed into place in uniform layers, of equal depth on each side of the pipe, up to one foot above the water level. Above the water level, backfill material shall be placed and compacted for normal backfill as previously specified.

**END OF SECTION**

**SECTION 02223****EXCAVATION AND BACKFILL FOR STRUCTURES****PART 1 - GENERAL****1.01 THE REQUIREMENT**

- A. This Section includes, except as elsewhere provided, excavation, filling and compacting work for the piping installation.

**1.02 RELATED WORK**

- A. Section 02210 – Earth Excavation, Backfill, Fill and Grading

**1.03 QUALITY CONTROL**

- A. Codes and Standards: Excavation and backfill work shall be performed in compliance with applicable codes, standards and requirements of governing authorities having jurisdiction in the area.
- B. Testing and Inspection Service: An independent testing laboratory (Testing Laboratory) will be selected by the City to conduct appropriate field and laboratory tests on soils and other materials in accordance with the Contract Documents. The first round of tests will be paid for from the "Permit Fee and Testing Allowance". The costs of any subsequent re-compaction and retesting due to not achieving the required minimum compaction will be borne by the Design Build Firm at no additional cost to the City.

**1.04 JOB CONDITIONS**

- A. Existing Utilities
1. Locate existing underground utilities in the areas of work. Test pits and hand excavation in critical areas will be required prior to initiating work.
  2. All existing utilities including piping, electrical conduits, electric duct banks and telephone cables that are shown on the Contract Drawings to be relocated, shall be relocated prior to initiating earth work. Excavation and backfill for relocation of existing utilities shall conform to the requirements of Section 02222 - Excavation and Backfill for Utilities. The Design Build Firm shall coordinate relocation of utilities with utility companies having jurisdiction in the area. Should unknown or incorrectly identified piping or other

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utilities be encountered during excavation, the Design Build Firm shall consult the City, Engineer and Owner of such piping/utility for directions.

3. The Design Build Firm shall cooperate with the City and utility companies in keeping respective services and facilities in operation.

### 1.05 PROHIBITION OF BLASTING

- A. The use of explosives for excavation work is strictly prohibited on this project.

### 1.06 SUBMITTALS

- A. The Design Build Firm shall submit information and samples to the Engineer for review as specified herein in accordance with Section 01300. The information shall include:
  1. Detailed description of the dewatering method chosen and sequence of dewatering operations, if dewatering is necessary.
  2. Plans showing the methods and locations of dewatering and discharge. The drawings shall include a sufficient number of detailed sections to clearly illustrate the scope of work. The drawings showing all of the above information, including calculations, shall be prepared by a qualified Professional Engineer registered in the state of Florida, and shall bear its seal and signature. A copy of any relevant dewatering permit shall be submitted.
  3. Lists of materials and equipment to be used.
  4. Detailed description of the selected method(s) of excavation, fill and compaction.
  5. Plans of open cut excavations showing side slopes and limits of the excavation at grade where not shown on the Contract Drawings. The traffic lane to be closed and maintained shall be indicated in the submittal.
  6. Design computation of sheeting system. Sheeting and shoring plans shall be designed and sealed by a professional Engineer registered in the State of Florida. Submittals shall indicate depth of penetration.
  7. The Design Build Firm shall furnish the Engineer, for approval, a representative sample of structural fill material from off-site sources at least ten calendar days prior to the date of anticipated use of such material. The sample shall be delivered to the site at a location determined by the Engineer. The submittal shall identify the source of the material.

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## 1.07 PROTECTION OF PROPERTY AND STRUCTURES

- A. It shall be the Design Build Firm's responsibility to provide trench safety systems, such as sheeting and bracing, in accordance with state, local and OSHA regulations.
- B. The Design Build Firm shall, at its own expense, sustain in place and protect from direct and indirect injury, its work at all times as well as all pipes, poles, conduits, walls, buildings, and all other structures, utilities and property in the vicinity of its work. Such sustaining shall be done by the Design Build Firm. The Design Build Firm shall take all risks attending the presence or proximity of pipes, poles, conduits, walls, buildings and all other structures, utilities, and property in the vicinity of its work. It shall be responsible for all damage, and assume all expenses, for direct or indirect injury and damage, caused by its work, to any such pipes, structures, etc., or to any person or property, by reason of injury to them, whether or not such structures, etc., are shown on the Drawings.
- C. Barriers and lights shall be placed at all excavations in accordance with OSHA requirements.
- D. Safe and suitable ladders for access to trenches shall be provided in accordance with OSHA requirements.

## PART 2 - PRODUCTS

### 2.01 GENERAL

- A. Specific locations/areas of work where these materials shall be utilized are defined on the Drawings.

### 2.02 STRUCTURAL FILL

- A. Fill material shall be non-cohesive, non-plastic, granular mixture of local clean sand or local clean sand and limerock free from vegetation, organic material, muck or deleterious matter. Material shall conform to AASHO-2 gradation with no more than ten (10) percent by weight passing the No. 200 sieve. All rock or hard material shall pass through a 3-inch diameter ring. Broken Portland cement or asphaltic concrete shall not be considered an acceptable fill material. Fill material containing limerock shall have sufficient sand to fill the voids in the limerock. Material placed in the upper 6-inches of all backfills or fills shall not contain any stones or rocks larger than 1-inch in diameter. Limits of excavation and fill shall be as defined on the Drawings. All structural fill materials shall be obtained from off-site sources.

## 2.03 OTHER MATERIALS

- A. Requirements for any other fill material, if needed, are defined on the Drawings.

## PART 3 - EXECUTION

### 3.01 DESIGN BUILD FIRM INSPECTIONS

- A. Examine the areas and conditions under which excavating, filling, and grading are to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected.
- B. Examine and accept existing grade of the project site walkways, pavements, etc., prior to commencement of work and report to Engineer if elevations of existing subgrade substantially vary from elevations shown on the Drawings.

### 3.02 EXCAVATION FOR STRUCTURES

- A. Unless otherwise indicated on the Drawings, all excavation shall be made in such a manner, and to such widths, as will give ample room for properly constructing and inspecting the structures they are to contain. Excavation shall be made in accordance with the details shown on the Drawings, and as specified herein. Attention shall be given to the proper handling of storm water runoff. The Design Build Firm shall intercept and collect surface run off both at the top and bottom of cut slopes. The excavating equipment shall operate in an organized fashion so as to remove silt from one edge of the excavation to the other so as not to trap silt within the undercut area.
- B. Where required on the Drawings, unsuitable material (silt layer) beneath the groundwater encountered at the site shall be removed using equipment, as approved by the Engineer. The equipment shall operate in an organized manner so as to remove silt from one edge of the excavation to the other so as not to trap silt within the undercut area. Unsuitable material shall be drained while being removed, removed and disposed of off-site by the Design Build Firm. The Design Build Firm shall clean all roadways impacted by his demucking, hauling, any temporary stockpiling and removal operations at a frequency as determined by the Engineer in the field.
- C. In excavating for footings and foundations, the Design Build Firm shall take care not to disturb bottom of excavation. Excavate by hand to final grade just before concrete reinforcement is placed. Trim bottoms to required lines and grades to leave solid base to receive concrete.

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- D. The Design Build Firm shall ensure that its excavation work does not adversely affect the bearing capacity of the structural subsurface. Also, the Design Build Firm shall proceed with foundation work immediately after excavation work and as expeditiously as possible so as to minimize any potential for subsurface disturbance due to environmental factors, adverse weather, etc. The Design Build Firm shall also take all necessary precautions to protect its work from potential adverse impacts. Where excavated areas are disturbed by subsequent operations or adverse weather, scarify surface, reshape, fill as required, and compact to required density.
- E. All excavated soil material, removed underground utilities including pipes and fittings, electrical conduits and duct banks, and other undefined materials removed within the limits of the excavation, shall be disposed off-site by the Design Build Firm.
- F. Refer to the Drawings for additional requirements for excavation for specific locations/areas of work.

### 3.03 UNAUTHORIZED EXCAVATION

- A. Excavation work carried outside of the work limits required by the Contract Documents shall be at the Design Build Firm's expense and shall be backfilled by the Design Build Firm at its own expense with structural fill, as directed by the Engineer. Where, in the judgment of the Engineer, such over-excavation requires use of lean concrete or crushed stone, the Design Build Firm, at its expense, shall furnish and place such materials.

### 3.04 SHEETING AND BRACING

- A. The term "sheeting" shall represent any type of shoring used to support sides of the excavation. Walls of the excavation shall be kept vertical where open cut is not practical and, if required to protect the safety of workmen, the general public, this or other work or structure, or excavation walls, the excavation shall be properly sheeted and braced for conditions encountered and in conformance with OSHA requirements. Excavation for the structures shall be sufficient to provide a clearance between their outer surfaces and the face of the excavation, sheeting, or bracing, of not less than two feet, unless otherwise indicated on the Drawings. Materials encountered in the excavation, which have a tendency to slough or flow into the excavation, undermine the bank, weaken the overlying strata, or are otherwise rendered unstable by the excavation operation shall be retained by sheeting, stabilization, grouting or other acceptable methods.
- B. Minimum length of embedment below the deepest part of the excavation

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shall be 0.3 times the depth of excavation being supported or greater depending on the sheeting. The design of the sheeting arrangement shall be the responsibility of the Design Build Firm.

- C. Sheeting shall be removed provided its removal will not jeopardize pipes or structures. Any sheeting left in place must be authorized by the Engineer and shall be cut-off two feet below finished grade, or as directed. The Design Build Firm will not receive extra compensation for sheeting left in place or the cut off work required.

### 3.05 REMOVAL OF WATER

A. General

1. Removal of groundwater, or dewatering, shall be accomplished in accordance with the requirements of Section 02140, "Dewatering", and as indicated below. In the event these requirements are in conflict, the most stringent shall govern.
2. The Design Build Firm shall provide pumps, well points, and other appurtenant equipment necessary to remove and maintain water at such a level as to permit construction in the dry where defined on the Drawings. The ground water level shall be controlled so as to permit the placing and curing of concrete and the maintenance of supporting foundations and adjacent work and structures in the dry.
3. The Design Build Firm shall use dewatering systems that include automatic starting devices, and standby pumps that will ensure continuous dewatering in the event of an outage of one or more pumps.
4. If excavations to be dewatered cannot be maintained dry by the Design Build Firm's dewatering efforts, then the Design Build Firm shall provide tremie seals at no additional cost to the City. The placement of tremie seals shall not preclude dewatering operations specified herein. The limits of tremie seals shall be recommended by the Design Build Firm and reviewed and accepted by the Engineer.
5. Dewatering Permits: If the quantity and/or nature of water withdrawn require approval/permits from regulatory agencies, the Design Build Firm shall procure such permits at its expense, and submit copies to the Engineer before commencing the work. The Design Build Firm will not be granted contract time extensions due to dewatering permit processing delays.

- B. Disposal: The Design Build Firm shall be responsible to dispose of water from the dewatering operation in accordance with the Contract Documents and shall obtain all necessary permits and conform to all local regulations and codes. Water from the excavation shall be disposed of in such a

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manner as will not cause injury to public health, to public or private property, to the work completed or in progress, to the surface of the streets, will not cause any interference with the use of the same by the public, or will not cause pollution of any waterway or stream. Water from dewatering operation may be disposed at locations directed by the City with the proper installation of siltation screens and operation of the dewatering system in accordance with all local regulations and codes. The Design Build Firm shall submit its dewatering method and point(s) of discharge to the Engineer for review at least twenty (20) days prior to any dewatering activities. The Design Build Firm shall provide maintenance of canal(s) and drainage ditches to which it discharges. The cost of maintaining drainage ditches and canal(s) shall be included in the bid price. The Design Build Firm shall remove siltation and haul and dispose of this material on a regular basis to maintain the original base conditions at all time, so as not to impact drainage in the general area.

### 3.06 FILL PLACEMENT AND COMPACTION

#### A. General

1. Fill material (including structural fill and other fill material) shall be placed within the limits of excavations as shown on the Drawings. When placed in the wet, fill material shall be placed in standing groundwater to a level one foot above stabilized groundwater. The material shall be placed at one edge of the excavation and pushed to the other so as to move residuals across the bottom of the excavation. The leading edge of the fill should be cleaned regularly to remove it of the advancing residuals. All residuals shall be disposed at off-site locations shown on the Drawings or specified herein.
2. Once fill materials have been placed up to one foot above the stabilized groundwater, the entire lift should then be rolled with six passes from a 10-ton roller. The coverage shall be overlapping and shall occur while the compactor is operated at a travel speed of not more than two feet per second. If a vibratory compactor is used, it should be operated with the vibrator off so as not to induce capillary moisture into the dry fill soils.
3. Fill materials placed following this initial lift shall be placed in the dry with loose lift thickness of eight inches or less. Each lift shall be compacted to achieve a minimum of 98 percent Modified Proctor maximum dry density in accordance with ASTM D1557. Fill materials shall be placed within two percent of optimum moisture content.

- B. Inspection and Testing: The fill placement and compaction shall be observed by the Engineer. As a minimum, an in-place density test will be

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made in each lift of compacted soil for every 2,500 square feet of area. The Design Build Firm shall coordinate and cooperate with the Testing Laboratory.

- C. Final Grades: Final structure fill grades shall be within 0.1 feet of elevations shown. Where shown on the Drawings, surfaces shall be sloped for drainage or other surfaces.
- D. Refer to the Drawings for additional fill and compaction requirements for specific locations/areas of work.

### **3.07 BACKFILL AGAINST STRUCTURES**

- A. Backfill against non-water holding structures shall not be performed until the concrete has been inspected by the Engineer. Backfill against walls shall also be deferred until the structural slab for floors above the top fill line have been placed and attained design strength. Partial backfilling against adequately braced walls may be considered by the Engineer on an individual situation basis. Where walls are to be waterproofed, all work shall be completed and membrane materials dried or cured according to the manufacturer's instructions before backfilling.

**END OF SECTION**

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## **SECTION 02270**

### **EROSION AND SEDIMENTATION CONTROL**

#### **PART 1 - GENERAL**

##### **1.01 DESCRIPTION**

The work specified in this Section consists of measures required to control erosion on the project and in areas outside the project area where work is accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects of public or private property adjacent to the project area and damage to work on the project. These measures will consist of construction and maintenance of temporary erosion control features or, where practical, the construction and maintenance of permanent erosion control features.

##### **1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE**

- A. Drawings and general provisions of the Contract, including the General and Supplementary Conditions and Division 1 Specification sections, apply to this section.
- B. Section 02485 – Grassing.

##### **1.03 START OF WORK**

Do not start work until erosion control measures are in place.

#### **PART 2 - PRODUCTS**

##### **2.01 GENERAL**

- A. No testing of materials used in construction of temporary erosion control features will be required.
- B. Materials used for the construction of the temporary erosion and sedimentation control measures not to be incorporated into the completed project may be new or used.

#### **PART 3 - EXECUTION**

##### **3.01 GENERAL**

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- A. Temporary erosion control features shall consist of, but not be limited to, temporary grassing, temporary sodding, temporary mulching, sandbagging, slope drains, sediment basins, artificial coverings, berms, baled hay or straw, floating silt barriers, staked silt barriers and staked silt fences. Design details for some of these items may be found in the Water Quality Section of the applicable edition of the FDOT Roadway and Traffic Design Standards.
- B. Incorporate permanent erosion control features into the project at the earliest practical time. Correct conditions, using temporary measures, that develop during construction to control erosion prior to the time it is practical to construct permanent control features.
- C. Construct temporary and permanent erosion and sediment control measures to prevent the pollution of adjacent water ways in conformance with the laws, rules and regulations of Federal, State and local agencies.

### 3.02 INSTALLATION

- A. Temporary Grassing: This work shall consist of furnishing and placing grass seed in accordance with Section 02485 – Grassing.
- B. Baled Hay or Straw:
  - 1. This work shall consist of construction of baled hay or straw dams to protect against downstream accumulations of silt. The baled hay or straw dams shall be constructed in accordance with the details shown in FDOT's Roadway and Traffic Design Standards.
  - 2. The dam shall be placed so as to effectively control silt dispersion under conditions present on this project. Alternate solutions and usage of materials may be used if approved.
- C. Temporary Silt Fences and Staked Silt Barriers: This work shall consist of furnishing, installing, maintaining and removing staked turbidity barriers in accordance with the manufacturer's directions, these specifications and the details as shown in FDOT's Roadway and Traffic Design Standards.

### 3.03 REMOVAL OF TEMPORARY EROSION CONTROL FEATURES

In general, remove or incorporate into the soil any temporary erosion control features existing at the time of construction of the permanent erosion control features in such a manner that there will be no detrimental effect.

### 3.04 MAINTENANCE OF EROSION CONTROL FEATURES

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General: Provide routine maintenance of permanent and temporary erosion control features until the project is completed and accepted.

### **3.05 PROTECTION DURING SUSPENSION OF CONTRACT TIME**

In the event that it is necessary that the construction operations be suspended for any appreciable length of time, shape the top of the earthwork in such a manner as to permit runoff of rainwater and construct earth berms along the top edges of embankments to intercept runoff water. Provide temporary slope drains to carry runoff from cuts and embankments which are located in the vicinity of rivers, streams, canals, lakes, and impoundments. Should such preventive measures fail, immediately take such other action as necessary to effectively prevent erosion and siltation.

**END OF SECTION**

**SECTION 02485****GRASSING****PART 1 - GENERAL****1.01 DESCRIPTION OF WORK**

- A. The Design Build Firm shall furnish all labor, equipment, and materials necessary for grassing all areas disturbed by his operations and any other areas on the plans indicated to receive grassing. It is the intent of this specification that damaged areas are to be replaced in kind, with sod to be used for all maintained yard areas. Design Build Firm shall take all steps practical to minimize the area required to be sodded. All grassing shall be in accordance with Section 570 of the current FDOT Standard Specifications for Road and Bridge Construction, except as modified herein.

**1.02 STORAGE OF MATERIALS**

- A. The Design Build Firm shall provide space for storage of sod prior to placement in a manner that will not endanger or restrict pedestrian or vehicular traffic or interfere with other aspects of the work.

**1.03 RELATED REQUIREMENTS SPECIFIED ELSEWHERE**

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.

**PART 2 - PRODUCTS****2.01 SOD**

- A. Types: Sod shall be St. Augustine Floratam, Argentine Bahia, Centipede, or Bermuda, depending on type of existing sod in adjacent area to be matched. Sod shall be well matted with roots. Where sodding will adjoin, or be in sufficiently close proximity to private lawns, types of sod other than those listed above may be used if desired by the affected property owners and approved by the Engineer. Sod shall be delivered in commercial-size rectangles, preferably 12-inch by 24-inch or larger.
- B. Condition: The sod shall be sufficiently thick to secure a dense stand of live grass. The sod shall be live, fresh, and uninjured at the time of planting. It shall have a soil mat of sufficient thickness adhering firmly to the roots to withstand all necessary handling. It shall be reasonably free of weeds and

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other grasses. It shall be planted as soon as possible after being dug and shall be kept moist from the time it is planted.

## 2.02 FERTILIZER

- A. Fertilizer shall be commercial fertilizer, as manufactured by International Chemical Company or equal.
- B. Said fertilizer shall have a 10-20-6 N.P.K. content and contain a minimum of 60% of organic material.
- C. It shall be delivered at the site in the original sealed containers.

## 2.03 GRASSING EQUIPMENT

- A. Rollers: A cultipacker, traffic roller, or other suitable equipment will be required for rolling the grassed areas.

## PART 3 - EXECUTION

### 3.01 GENERAL CONSTRUCTION METHODS

- A. No grassing shall be done when the ground is unduly wet or otherwise not in a suitable condition. Whenever a suitable length of right-of-way, disturbed area, or other area has been graded, it shall be made ready, when directed by the Owner/Engineer, and grassed in accordance with these specifications. Grassing shall be incorporated into the project at the earliest practical time in the lift of the contract.

### 3.02 SODDING

- A. Preparation of Area to be Sodded: The ground which is to receive sod shall have been graded to proper elevations (2" below sodded grade) to match pre-construction conditions or proposed grades. All disturbed swales and ditches shall have been restored to their pre-construction condition or better. The pre-construction grade shall be maintained and the prepared soil shall be loose and reasonable smooth. It shall be reasonable free of large clods, roots, patches of existing grass, and other material which will interfere with the sod-laying operations or subsequent mowing and maintenance operations.
- B. Laying of Sod: Sod shall be installed in all areas so designated by Owner/Engineer. Sod shall be carefully placed so that each piece abuts flush to all surrounding sod, regardless of whether surrounding sod is new or existing. All sod joints shall be staggered. Where new sod is to be placed



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adjacent to existing sod, the new sod must be cut in to match the elevation of the existing sod. Uneven sod which might cause mowing problems will be rejected. New sod laid on top of existing sod will also be rejected. All sod placed on steep slopes (greater than 1:1) shall be pinned with a wooden pin to keep it in place.

- C. Rolling: Immediately after completion of the sod laying, the entire sodded area shall be rolled thoroughly with the equipment specified. At least two trips over the entire area will be required.
- D. Watering: Newly-sodded areas are to be watered by Design Build Firm as necessary to keep sod alive until the Design Build Firm is closed out. Dead sod shall be replaced by Design Build Firm prior to contract closeout.

**END OF SECTION**

**SECTION 02505****MILLING OF EXISTING ASPHALT PAVEMENT****PART 1 - GENERAL****1.04 WORK INCLUDED**

- A. Remove existing asphalt concrete pavement by milling to improve the rideability and cross slope of the finished pavement, to lower the finished grade adjacent to existing curb prior to resurfacing, as part of pavement restoration, or to completely remove existing pavement.
- B. DBF to take ownership of milled material.

**1.05 RELATED REQUIREMENTS SPECIFIED ELSEWHERE**

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section
- B. Section 02510 – Paving and Surfacing

**PART 2 – PRODUCT****2.01 EQUIPMENT**

- A. Provide a milling machine capable of maintaining a depth of cut and cross slope that will achieve the results required by the City. Use a machine with a minimum overall length (out to out measurement excluding the conveyor) of 18 feet and a minimum cutting width of 6 feet.
- B. Equip the milling machine with a built-in automatic grade control system that can control the transverse slope and the longitudinal profile to produce the specified results.
- C. To start the project, the City will approve any commercially manufactured milling machine that meets the above requirements. If it becomes evident after starting milling that the milling machine cannot consistently produce the specified results, the City will reject the milling machine for further use.
- D. The DBF may use a smaller milling machine when milling to lower the grade adjacent to existing curb or other areas where it is impractical to use the above described equipment.
- E. Equip the milling machine with means to effectively limit the amount of dust

escaping during the removal operation.

- F. For complete pavement removal, the City may approve the use of alternate removal and crushing equipment in lieu of the equipment specified above.

### **PART 3 – EXECUTION**

#### **3.01 MILLING**

- A. Remove the existing raised reflective pavement markers prior to milling. Include the cost of removing existing pavement markers in the price for milling.
- B. When milling to improve rideability or cross slope, remove the existing pavement to the average depth specified in the plans, in a manner that will restore the pavement surface to a uniform cross-section and longitudinal profile. The City may require the use of a stringline to ensure maintaining the proper alignment.
- C. Multiple cuts may be made to achieve the required pavement configuration or depth of cut. Include in the Quality Control Plan a system to control the cross slope of the milling surface with a minimum frequency of one cross slope measurement every 250 feet during milling operations in order to ensure that the slopes are uniform and in compliance with the designed milling slope. When the difference between the measured cross slope and the designed cross slope exceeds  $\pm 0.2\%$  for travel lanes (including turn lanes) and  $\pm 0.5\%$  for shoulders, make all corrections immediately to bring the cross slope into an acceptable range. The City will periodically verify the DBF's measurements at the job site.
- D. For intersections, tapers, crossovers, transitions at the beginning and end of the project and in other similar areas, the cross slope will be adjusted to match the actual site conditions.
- E. Operate the milling machine to minimize the amount of dust being emitted.
- F. Provide positive drainage of the milled surface and the adjacent pavement. Perform this operation on the same day as milling. Repave all milled surfaces no later than the day after the surface was milled unless otherwise stated in the plans.
- G. If traffic is to be maintained on the milled surface prior to the placement of the new asphalt concrete, provide suitable transitions between areas of varying thickness to create a smooth longitudinal riding surface. Produce a pattern of striations that will provide an acceptable riding surface.
- H. Prior to opening an area which has been milled to traffic, sweep the pavement

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with a power broom or other approved equipment to remove, to the greatest extent practicable, fine material which will create dust under traffic. Sweep in a manner that will minimize the potential for creation of a traffic hazard and to minimize air pollution.

- I. Sweep the milled surface with a power broom prior to placing asphalt concrete.
- J. In urban and other sensitive areas, use a street sweeper or other equipment capable of removing excess milled materials and controlling dust. Obtain the City's approval of such equipment, contingent upon its demonstrated ability to do the work.
- K. Perform the sweeping operation immediately after the milling operations.

### 3.02 MILLED SURFACE

- A. Provide a milled surface with a reasonably uniform texture, within 1/4 inch of a true profile grade, and with no deviation in excess of 1/4 inch from a straightedge applied to the pavement perpendicular to the centerline.
- B. Ensure that the variation of the longitudinal joint between multiple cut areas does not exceed 1/4 inch.
- C. Correct any unsuitable texture or profile at no additional expense to the City.
- D. The City may require remilling of any area where a surface lamination causes a non- uniform texture to occur.

**END OF SECTION**

**SECTION 02510****PAVING AND SURFACING****PART 1 - GENERAL****1.01 SECTION INCLUDES**

- A. The work covered by this section of the Specifications consists of furnishing all labor, materials, equipment and supplies and performing all operations for the construction of pavements under this Contract.

**1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE**

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- B. Section 01410 - Testing Laboratory Services
- C. Section 02220 – Excavation, Backfill and Compaction
- D. Section 02580 – Pavement Markings

**1.03 REFERENCED SPECIFICATIONS**

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition. Referred to in this section as DOT Std. Specs.
- B. City of Fort Lauderdale Engineering Standards, referred to in these documents as “City Standards.”

**1.04 SUBMITTALS**

- A. Submit in accordance with Section 01300.
- B. Submit name of all material sources to the Engineer. Provide materials from the same approved source throughout the project. All material sources shall be Florida DOT approved.
- C. Submit proposed job-mix design to the Engineer for review.
- D. Submit written certifications that each material conforms to these specifications.

**PART 2 -PRODUCTS****2.01 BASE MATERIAL**

- A. Limerock material shall meet the requirements of Section 911 of the DOT Std. Specifications for base material placed within FDOT right of way.
- B. Limerock material shall meet the requirements of the City Standards for base material placed within City right of way.
- C. Design Build Firm to bid and use only one base material throughout the City right of way.

**2.02 PRIME AND TACK COATS**

- A. The materials used for prime and tack coats shall meet the requirements of Section 300 of the DOT Std. Specs and the City Standards, as applicable.

**2.03 ASPHALTIC CONCRETE**

- A. Type S-III: Type S-III Asphaltic Concrete shall be used within City of Fort Lauderdale right of way and shall meet the requirements of the City Standards.

**2.04 EQUIPMENT**

- A. All equipment associated with the operations of pavement placement and related work shall be entirely suitable for the applicable operations performed and shall be maintained in good condition.

**2.05 QUALITY CONTROL**

- A. Quality control of the work shall be the Design Build Firm's responsibility and said Design Build Firm shall make every effort to produce the best quality work as specified on the Plans and in these Specifications.
- B. Density tests on the compacted subgrade and base shall be performed by an independent testing laboratory at locations designated by the Engineer.

**PART 3 - EXECUTION****3.01 EXAMINATION**

- A. Verify underground utilities are completed and inspected.

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- B. Verify that compacted subgrade is dry and ready to support paving and imposed loads.
- C. Verify gradients and elevations of base are correct.

### **3.02 SUBGRADE AND SHOULDER STABILIZATION (TYPE C)**

- A. The pavement subgrade and roadway shoulders within City right of way shall be prepared, graded, stabilized and compacted to the lines and grades as shown on the Plans and in accordance with the City Standards.

### **3.03 BASE**

- A. Base within the City of Fort Lauderdale right of way shall be prepared, graded and compacted to the lines and grades as shown on the Plans and in accordance with the City Standards.

### **3.04 PRIME AND TACK COAT**

- A. Base shall receive a prime coat with cover material in accordance with Section 300 of the DOT Std. Specs.
- B. Pavement overlays shall receive a tack coat in accordance with Section 300 of the DOT Std. Specs.

### **3.05 ASPHALTIC CONCRETE SURFACE COURSE**

- A. Asphaltic concrete surface course shall be constructed to a minimum thickness as specified on the Plans and be placed in a minimum of two (2) lifts.
- B. Asphaltic concrete surface course shall be constructed in accordance with Sections 320 and 330 of the DOT Std. Specifications.
- C. All existing exposed edges which abut to new Asphaltic Concrete Surface Course shall be saw cut in a straight and neat appearing line.
- D. All asphaltic concrete surface course pavement replacement shall be placed by mechanical spreading and screeding equipment as specified in Article 320-6.1 of the DOT Std. Specifications unless otherwise indicated. This will require at least an 8 ft. width for surface course placement unless specialty equipment is used which has received prior approval of the Engineer.

### **3.06 FIELD QUALITY CONTROL**

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- A. Section 01410 - Testing Laboratory Services: Design Build Firm to provide field inspection and testing for compaction densities.

### **3.07 PROTECTION**

- A. Immediately after placement, protect pavement from mechanical injury until surface temperature is less than 140 degrees F (60 degrees C).

**END OF SECTION**



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## **SECTION 02526**

### **CONCRETE PAVEMENT, CURBS AND SIDEWALKS**

#### **PART 1 - GENERAL**

##### **1.01 THE REQUIREMENT**

- A. Concrete pavement, curbs and sidewalk shall be constructed to the lines and grades and dimensions required for a complete installation as shown on the Drawings and specified herein.

##### **1.02 RELATED WORK**

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

##### **1.03 SUBMITTALS**

- A. Shop drawings for reinforcing, joint material and mix designs shall be submitted for review in accordance with Section 01300 - Submittals.

#### **PART 2 - PRODUCTS**

##### **2.01 CONCRETE**

- A. Concrete shall be Class B, conforming to Section 03300 – Cast-in-place Concrete, unless noted or specified otherwise.

##### **2.02 REINFORCING AND WELDED WIRE FABRIC**

- A. Joint reinforcing and welded wire fabric shall conform to Section 03300 – Cast-in-place Concrete

##### **2.03 JOINT SEALER FOR PAVEMENT**

- A. Joint sealer shall be a one- or two-part polysulfide base self leveling sealant for horizontal surfaces that has been developed for foot and vehicular traffic.

##### **2.04 PREFORMED JOINT FILLER**

- A. Preformed joint filler shall be sponge rubber and conform to the requirements of AASHTO Designated M148, Type 1.

#### **PART 3 - EXECUTION**

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### 3.01 SUBGRADE CONDITION

- A. The finished subgrade shall be maintained in a smooth, compact condition and any areas which are disturbed prior to placing of the concrete shall be restored at the Design Build Firm's expense. The subgrade shall be moist at the time the concrete is placed. Water shall be uniformly applied ahead of the paving operations as directed by the Engineer. If the Design Build Firm does not maintain the subgrade in the required moist condition, a vapor barrier sheet will be required between the subgrade and the concrete.
- B. The subgrade shall be accurately trimmed to the required elevation with a 1/4-inch tolerance. High areas shall be trimmed to proper elevation. Low areas may be filled with suitable material and compacted to the specified density or filled with concrete integrally with the placing of the pavement.

### 3.02 SETTING FORMS

- A. The forms shall be accurately set to line and grade and such that they rest firmly, throughout their entire length, upon the compacted subgrade surface. Forms shall be joined neatly and tightly and braces to test the pressure of the concrete and the finishing operations. The alignment and grade of all forms shall be approved before and immediately prior to the placing of concrete.

### 3.03 MIXING CONCRETE

- A. Concrete shall be mixed in accordance with Section 03300, Cast-in-place Concrete.

### 3.04 PLACING CONCRETE

- A. The concrete shall be distributed on the subgrade to such depth, that, when it is consolidated and finished, the slab thickness required by the Drawings will be obtained at all points and the surface will at no point be below the grade specified for the finished surface, after application of the allowable tolerance. The concrete shall be deposited on the subgrade in a manner which will require as little re-handling as possible.
- B. Fabric reinforcement, where required, shall be placed at mid slab depth, and the fabric shall be maintained at this location during the placing and finishing operations.
- C. Concrete shall be thoroughly consolidated against and along the faces of all forms, by means of hand-operated, spud-type vibrators. Vibrators shall not be permitted to come in contact with the subgrade or a side form.

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Vibration at any one location shall not continue so long as to produce “puddling”, or the accumulation of excessive grout on the surface. In no case shall the vibrator be operated longer than 15 seconds in any one location.

### 3.05 STRIKING-OFF, CONSOLIDATING AND FINISHING CONCRETE

- A. Immediately after the placing, the concrete shall be struck off, consolidated and finished, to produce a finished pavement conforming to the cross section, width and surface. Sequence of operations shall be as follows: strike-off; vibratory consolidation; screeding; floating; removal of laitance; straight edging; and final surface finish.

### 3.06 STRAIGHTEDGING AND SURFACE CORRECTIONS

- A. After floating has been completed and the excess water removed, but while the concrete is still in a plastic state, the surface of the concrete shall be tested for trueness with an accurate 10-foot straightedge. The straightedge shall be furnished by the Design Build Firm. The straightedge shall be held in successive positions parallel to the road center line, in contact with the surface, and the whole area tested from one side of the slab to the other as necessary. Any depressions shall be immediately filled with freshly mixed concrete and struck-off; consolidated and re-finished. High areas shall be cut down and re-finished. Straight-edge testing and surface correction shall continue until the entire surface appears to conform to the required grade and cross section.

### 3.07 FINAL FINISH

- A. As soon as the water sheen has disappeared from the surface of the pavement and just before the concrete becomes non plastic, a light broom finish shall be given to the surface.

### 3.08 EDGING

- A. After the final finish has been applied, but before the concrete has become non plastic, the edges of the pavement along each side of the strip being placed, on each side of construction joints and along any structure extending into the pavement, shall be carefully rounded to a 1/4 inch radius except as otherwise indicated. A well-defined and continuous radius shall be produced and a smoother, dense mortar finish obtained. All concrete shall be completely removed from the top of the joint filler.
- B. All joints shall be checked with a straightedge before the concrete has become non plastic and, if one side of the joint is higher than the other or the entire joint is higher or lower than the adjacent slabs, corrections shall

be made as necessary.

### 3.09 JOINTS

- A. Construction Joints: Construction joints shall be located as shown on the Drawings and/or as directed by the Engineer.
- B. Expansion Joints Around Structures: Expansion joints shall be formed by placing pre-molded expansion joint material about all structures and features projecting through, into or against the pavement. Unless otherwise indicated, such joints shall be ½-inch in width.
- C. Transverse Expansion Joints: Open type transverse expansion joints shall be provided at all sidewalk returns and at 50 feet intervals and wherever indicated on the Drawings. Open type joints shall be formed by staking a ¼-inch thick metal bulkhead in place and placing concrete on both sides. After the concrete has set sufficiently to preserve the width and shape of the joint, the bulkhead shall be removed. After the sidewalk has been finished over the joint, the slot shall be opened and edged with a tool having a ½-inch radius. Transverse expansion joints shall be cleaned and filled with joint filler strips ¼-inch thick conforming to the requirements of AASHTO M-153.
- D. Scored Joints: Scored joints shall be either formed or sawed at 5-foot intervals and shall extend to a depth of at least one fourth of the sidewalk slab thickness.

### 3.010 CURING

- A. After the finishing operations have been completed and as soon as the concrete has hardened sufficiently that marring of the surface will not occur, the entire surface and the edges of the newly placed concrete shall be covered and cured with membrane curing compound.
- B. Curing compound shall be uniformly applied to the surfaces to be cured, in a single coat, continuous film, at the rate of one gallon to not more than 200 square feet, by a mechanical sprayer.
- C. Curing compound shall not be applied during periods of rainfall. Curing compound shall not be applied to the inside faces of joints to be sealed. Should the film become damaged from any cause within the required curing period, the damaged portions shall be repaired immediately with additional compound. Upon removal of side forms, the sides of the slabs exposed shall immediately be coated to provide a curing treatment equal to that provided for the surface.

**3.011 CURB AND SIDEWALK CONSTRUCTION**

- A. The concrete curbs and sidewalks shall be constructed on a prepared smooth subgrade of uniform density. Large boulders and other obstructions shall be removed to a minimum depth of 6 inches below the finished subgrade elevation and the space shall be backfilled with sand, base course material or other suitable material which shall be thoroughly compacted by rolling or tamping. The Design Build Firm shall furnish a template and shall thoroughly check the subgrade prior to depositing concrete.
- B. Concrete for curbs, and sidewalks shall be formed, mixed, placed and finished in conformance with the requirements of Division 3, except as modified herein. Concrete shall be cured with a clear membrane curing compound which shall be applied at a uniform rate of one gallon per 200 square feet in accordance with the requirements specified herein. Sidewalks shall be given a light broom finish.

**3.012 CURBS**

- A. Curbs shall be constructed in uniform sections ten feet in length except where shorter sections are necessary for closures or arcs. The sections shall be separated by sheet metal templates set perpendicular to the face and tip of the curb and not less than 2 inches longer than the depth of the curb. The templates shall be held firmly during the placing of the concrete and shall be allowed to remain in place until the concrete has set sufficiently to hold its shape but shall be removed while the forms are still in place.
- B. After the concrete has sufficiently set for a minimum of 12 hours, the Design Build Firm shall remove the forms and backfill the spaces on each side. The earth shall be compacted in satisfactory manner without damage to the concrete Work. Minor defects shall be filled with a mortar composed of one-part Portland cement and two parts fine aggregate.

**3.013 PAVEMENT CURB AND SIDEWALK REPAIR**

- A. All damage to pavement, curb or sidewalk as a result of work under this Contract shall be repaired in a manner satisfactory to the Engineer and at no additional cost to the Owner. The repair shall include all work as specified herein.
- B. The width of all repairs shall extend at least 12 inches beyond the limit of the damage. The edge of the pavement curb or sidewalk to be left in place shall be cut to a true edge with a saw or other approved method so as to provide a clean edge to abut the repair. The line of the repair shall

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be reasonably uniform with no unnecessary irregularities.

**END OF SECTION**

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## **SECTION 02580**

### **PAVEMENT MARKINGS**

#### **PART 1 - GENERAL**

##### **1.01 REQUIREMENT**

- A. This section consists of striping pavement and parking stall wheel stops as indicated on the Drawings, specified herein and as required for a complete installation.

##### **1.02 SUBMITTALS**

- A. The Design Build Firm shall submit shop drawings and other information to the Engineer for review in accordance with Section 01300 - Submittals.

##### **1.03 QUALITY CONTROL**

- A. The phrase "DOT Specifications" shall refer to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. The DOT Specifications are referred to herein and are hereby made a part of this Contract to the extent of such references and shall be as binding upon the Contract as though reproduced herein in their entirety.
- B. "BCTED" shall refer to Broward County Traffic Engineering Division.

#### **PART 2 - PRODUCTS**

##### **2.01 PAVEMENT MARKINGS**

- A. Temporary Pavement Markings shall be painted in accordance with Sections 710 and 971 of FDOT Standard Specifications for Road and Bridge Construction and shall be installed immediately following the construction of new asphalt pavement.
- B. Permanent Pavement Markings shall be thermoplastic in accordance with Sections 711 and 971 of FDOT Standard Specifications for Road and Bridge Construction and shall not be installed until after new asphalt has undergone a 30-day curing period.

#### **PART 3 - EXECUTION**

##### **3.01 PAVEMENT MARKING**

PAVEMENT MARKINGS

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