

Solicitation 12589-423

FiveAsh Water Treatment Plant Filters Rehabilitation-Phase 2

Bid Designation: Public



City of Fort Lauderdale

Bid 12589-423

FiveAsh Water Treatment Plant Filters Rehabilitation-Phase 2

Bid Number	12589-423
Bid Title	FiveAsh Water Treatment Plant Filters Rehabilitation-Phase 2
Bid Start Date	Oct 20, 2021 12:10:57 PM EDT
Bid End Date	Nov 22, 2021 2:00:00 PM EST
Question & Answer End Date	Nov 15, 2021 5:00:00 PM EST
Bid Contact	Mary K Kleinpeter-Zamora Procurement Administrator Finance 954-828-5189 mkleinpeter-zamora@fortlauderdale.gov
Contract Duration	840 days
Contract Renewal	Not Applicable
Prices Good for	120 days
Pre-Bid Conference	Nov 3, 2021 10:00:00 AM EDT Attendance is optional Location: FiveAsh Water Treatment Plant 4321 NW 9th Avenue Fort Lauderdale, Florida FiveAsh Training room
Bid Comments	<p>The City of Fort Lauderdale, Florida (City) is seeking bids from qualified bidders, hereinafter referred to as the Contractor, to provide Fiveash Water Treatment Plant Filters Rehabilitation services for the City's Public Works Department, in accordance with the terms, conditions, and specifications contained in this Invitation To Bid (ITB).</p> <p>The contractor shall have previous construction experience in constructing additions/modifications to existing public buildings, in the State of Florida within the last ten (10) years. The following expertise is required to be considered for this contract. Specific references attesting to this expertise must be submitted with bid. Contractor must have completed three (3) similar projects in water treatment plants and be familiar with the Leopold Filter system.</p> <p>Sealed bids will be received electronically until 2:00 p.m., local time, on 11/22/2021, and opened online immediately thereafter via Microsoft Teams, for <u>BID NO.,12589-423</u>, PROJECT NO.,12485, FIVEASH WATER TREATMENT PLANT FITERS REHABILITATION-PHASE 2.</p> <p>Microsoft Teams meeting Join on your computer or mobile app Click here to join the meeting Or call in (audio only) +1 954-686-7296,,259778526# United States, Fort Lauderdale Phone Conference ID: 259 778 526# Find a local number Reset PIN</p>

Contractor must have completed three (3) similar projects in water treatment plants and be familiar with the Leopold Filter system.

Item Response Form

Item **12589-423--01-01 - Imported Item Lot: Mobilization and Demobilization**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Payment for the full compensation for all mobilization/demobilization activities, including but not limited to transport of personnel, materials, equipment, and other incidentals to the site, all notifications to public including but not limited to flyers and other notifications, preparation of submittals including schedule, permit packages, and others, temporary facilities and offices, safety equipment and first aid supplies, project signs meeting City standards, field surveys, sanitary and other facilities required by the specifications, audio-video documentation of the existing site, any space required for staging, laydown, survey, storage, parking, security, project meetings, preparation of the project record documents as specified in the technical specification, etc., and all other pre- or post-construction expenses necessary for the start or cessation of the Work. The payment items for mobilization shall not exceed 3 percent of the total bid amount. Payment shall be 25 percent of the unit price at 5 percent project complete, 50 percent at 10 percent project complete; 75 percent at 25 percent project complete; and 100 percent at 100 percent project complete.

Item **12589-423--01-02 - Imported Item Lot: Filter No. 1 Media**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-03 - Imported Item Lot: Filter No. 1 Underdrain Inspection**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-04 - Imported Item Lot: Filter No. 1 Influent Valve**
Quantity **1 lump sum**
Unit Price
Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
See ITB Specifications
Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-05 - Imported Item Lot: Filter No. 1 Disinfection**
Quantity **1 lump sum**
Unit Price
Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
See ITB Specifications
Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-06 - Imported Item Lot: Filter No. 2 Media**
Quantity **1 lump sum**
Unit Price
Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
See ITB Specifications
Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-07 - Imported Item Lot: Filter No. 2 Underdrain Inspection**
Quantity **1 lump sum**
Unit Price
Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
See ITB Specifications
Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item	12589-423--01-08 - Imported Item Lot: Filter No. 2 Influent Valve
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item	12589-423--01-09 - Imported Item Lot: Filter No. 2 Disinfection
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item	12589-423--01-10 - Imported Item Lot: Filter No. 3 Media
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item	12589-423--01-11 - Imported Item Lot: Filter No. 3 Underdrain Inspection
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs,

recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item	12589-423--01-12 - Imported Item Lot: Filter No. 3 Influent Valve
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale
	See ITB Specifications
	See ITB Specifications
	Fort Lauderdale FL 33301
	Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item	12589-423--01-13 - Imported Item Lot: Filter No. 3 Disinfection
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale
	See ITB Specifications
	See ITB Specifications
	Fort Lauderdale FL 33301
	Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item	12589-423--01-14 - Imported Item Lot: Filter No. 4 Media
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale
	See ITB Specifications
	See ITB Specifications
	Fort Lauderdale FL 33301
	Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item	12589-423--01-15 - Imported Item Lot: Filter No. 4 Underdrain Inspection
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale
	See ITB Specifications
	See ITB Specifications
	Fort Lauderdale FL 33301
	Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-16 - Imported Item Lot: Filter No. 4 Influent Valve**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-17 - Imported Item Lot: Filter No. 4 Disinfection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-18 - Imported Item Lot: Filter No. 6 Media**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-19 - Imported Item Lot: Filter No. 6 Underdrain Inspection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-20 - Imported Item Lot: Filter No. 6 Influent Valve**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-21 - Imported Item Lot: Filter No. 6 Disinfection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-22 - Imported Item Lot: Filter No. 9 Media**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-23 - Imported Item Lot: Filter No. 9 Underdrain Inspection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1**Description**

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-24 - Imported Item Lot: Filter No. 9 Influent Valve**
Quantity **1 lump sum**Unit Price Delivery Location **City of Fort Lauderdale**[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1**Description**

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-25 - Imported Item Lot: Filter No. 9 Disinfection**
Quantity **1 lump sum**Unit Price Delivery Location **City of Fort Lauderdale**[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1**Description**

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-26 - Imported Item Lot: Filter No. 14 Media**
Quantity **1 lump sum**Unit Price Delivery Location **City of Fort Lauderdale**[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1**Description**

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-27 - Imported Item Lot: Filter No. 14 Underdrain Inspection**
Quantity **1 lump sum**Unit Price Delivery Location **City of Fort Lauderdale**[See ITB Specifications](#)

See ITB Specifications
Fort Lauderdale FL 33301

Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-28 - Imported Item Lot: Filter No. 14 Influent Valve**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-29 - Imported Item Lot: Filter No. 14 Disinfection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-30 - Imported Item Lot: Filter No. 15 Media**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-31 - Imported Item Lot: Filter No. 15 Underdrain Inspection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-32 - Imported Item Lot: Filter No. 15 Influent Valve**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-33 - Imported Item Lot: Filter No. 15 Disinfection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-34 - Imported Item Lot: Filter No. 17 Media**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**

[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-35 - Imported Item Lot: Filter No. 17 Underdrain Inspection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**
See ITB Specifications
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-36 - Imported Item Lot: Filter No. 17 Influent Valve**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
See ITB Specifications
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-37 - Imported Item Lot: Filter No. 17 Disinfection**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
See ITB Specifications
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-38 - Imported Item Lot: Filter No. 18 Media**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
See ITB Specifications
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-39 - Imported Item Lot: Filter No. 18 Underdrain Inspection**
 Quantity **1 lump sum**

Unit Price

Delivery Location

City of Fort Lauderdale[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1**Description**

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item

12589-423--01-40 - Imported Item Lot: Filter No. 18 Influent Valve

Quantity

1 lump sum

Unit Price

Delivery Location

City of Fort Lauderdale[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1**Description**

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item

12589-423--01-41 - Imported Item Lot: Filter No. 18 Disinfection

Quantity

1 lump sum

Unit Price

Delivery Location

City of Fort Lauderdale[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1**Description**

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item

12589-423--01-42 - Imported Item Lot: Filter No. 19 Media

Quantity

1 lump sum

Unit Price

Delivery Location

City of Fort Lauderdale[See ITB Specifications](#)

See ITB Specifications

Fort Lauderdale FL 33301

Qty 1**Description**

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item

12589-423--01-43 - Imported Item Lot: Filter No. 19 Underdrain Inspection

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-44 - Imported Item Lot: Filter No. 19 Influent Valve**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-45 - Imported Item Lot: Filter No. 19 Disinfection**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-46 - Imported Item Lot: Filter No. 20 Media**

Quantity **1 lump sum**

Unit Price

Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item **12589-423--01-47 - Imported Item Lot: Filter No. 20 Underdrain Inspection**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item **12589-423--01-48 - Imported Item Lot: Filter No. 20 Influent Valve**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item **12589-423--01-49 - Imported Item Lot: Filter No. 20 Disinfection**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item **12589-423--01-50 - Imported Item Lot: Filter No. 21 Media**
 Quantity **1 lump sum**
 Unit Price
 Delivery Location **City of Fort Lauderdale**
[See ITB Specifications](#)
 See ITB Specifications
 Fort Lauderdale FL 33301
Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item	12589-423--01-51 - Imported Item Lot: Filter No. 21 Underdrain Inspection
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item	12589-423--01-52 - Imported Item Lot: Filter No. 21 Influent Valve
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item	12589-423--01-53 - Imported Item Lot: Filter No. 21 Disinfection
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item	12589-423--01-54 - Imported Item Lot: Filter No. 22 Media
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install and test new filter

media (gravel, sand, and anthracite). Top of new media to be installed 2 inches below existing agitator arm, as detailed in the construction documents.

Item	12589-423--01-55 - Imported Item Lot: Filter No. 22 Underdrain Inspection
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all materials, labor, and equipment necessary to inspect underdrain for proper operation, identify and perform all need repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.

Item	12589-423--01-56 - Imported Item Lot: Filter No. 22 Influent Valve
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.

Item	12589-423--01-57 - Imported Item Lot: Filter No. 22 Disinfection
Quantity	1 lump sum
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 1

Description

Furnish all labor, materials, equipment, and appurtenances, required to disinfect filter as specified and in accordance with the Contract Documents.

Item	12589-423--01-58 - Imported Item Lot: Filter Underdrain Replacement
Quantity	3 each
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale See ITB Specifications See ITB Specifications Fort Lauderdale FL 33301 Qty 3

Description

Furnish all materials, labor, equipment, tools, and appurtenances, to deliver, install, test, and place into operation a new underdrain system complete with all necessary accessories as per the recommendations of the Manufacturer.

Item	12589-423--01-59 - Imported Item Lot: Influent Valve Replacement - 18 inches
Quantity	2 each
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale
	See ITB Specifications
	See ITB Specifications
	Fort Lauderdale FL 33301
	Qty 2

Description

Furnish all materials, labor, equipment, tools, and appurtenances, required replace existing influent valve in its entirety.

Item	12589-423--01-60 - Imported Item Lot: Influent Valve Replacement - 30 inches
Quantity	2 each
Unit Price	<input type="text"/>
Delivery Location	City of Fort Lauderdale
	See ITB Specifications
	See ITB Specifications
	Fort Lauderdale FL 33301
	Qty 2

Description

Furnish all materials, labor, equipment, tools, and appurtenances, required replace existing influent valve in its entirety.

**CITY OF FORT LAUDERDALE
CONTRACT AND SPECIFICATIONS PACKAGE**

BID NO. 12589-423

PROJECT NO. 12485

**FIVEASH WATER TREATMENT PLANT FILTERS
REHABILITATION PHASE-2**



**Scott Teschky
Sr. Project Manager**

**Mary Kay Kleinpeter-Zamora
Purchasing Administrator**
Telephone: (954) 828-5189 E-mail: mkleinpeter-zamora@fortlauderdale.gov

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS

<u>Description</u>	<u>Pages</u>
I. BID INFORMATION	
Invitation to Bid	ITB-1 thru ITB-3
Instruction to Bidders	IB-1 thru IB-7
General Conditions	GC-1 thru GC-11
Special Conditions	SC-1 thru SC-12
II. CERTIFICATION OF RESTRICTIONS ON LOBBYING	CRL-1
III. CONSTRUCTION AGREEMENT (SAMPLE).....	C-1 thru C-44
IV. TECHNICAL SPECIFICATIONS	
1. Section 01010 Summary of Work	7
2. Section 01025 Measurement and Payment	5
3. Section 01040 Coordination	3
4. 010909 Reference Standards	2
5. 01070 Abbreviations	3
6. Section 01200 Project Meetings	5
7. Section 01311 Construction Schedules	5
8. Section 01500 Construction Facilities and Temporary Controls	5
9. Section 01500 Construction Facilities and Temporary Controls	5
10. Execution	5
11. Section 01400 Quality Control	2
12. Section 01520 Maintenance of Utility Operations During Construction	4
13. Section 01540 Demolition and Removal of Existing Structures and Equipment	3
14. Section 13220 Filter Underdrain	8
15. Section 02668 Disinfection and Bacteriological Testing	3
16. Section 13222 Filter Media and Gravel	7
17. Section 15100 Valves and Appurtenances	7
18. Section 15110 Butterfly Valves	2

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

CITB Prime Contractor Identification
 CITB Questionnaire Sheet
 CITB Trench Safety
 Disadvantaged Business Enterprise Preference Certification
 Non-Collusion Statement
 Non-Discrimination Certification Form
 Contract Payment Method p-card acceptance form
 Construction Bid Certification Page
 Secured plan request form
 E-Verify Affirmation Statement

INVITATION TO BID

Sealed bids will be received electronically until **2:00 p.m.**, local time, on **November 22**, and opened online immediately thereafter via Microsoft Teams, for **BID NO.,12589-423**, **PROJECT NO.,12485**, **FIVEASH WATER TREATMENT PLANT FILTERS REHABILITATION-PHASE 2**.

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

[+1 954-686-7296](#), [259778526#](#) United States, Fort Lauderdale

Phone Conference ID: 259 778 526#

[Find a local number](#) | [Reset PIN](#)

Anyone requesting assistance or having further inquiry in this matter must contact the Procurement Specialist indicated on the solicitation, via the Question and Answer (Q&A) platform on Bidsync.com before the Last Day for Questions indicated in the Solicitation.

This Project is located at FiveAsh Water Treatment Plant, 4321 NW 9th avenue in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, the complete removal and replacement of existing Media, and Underdrain Inspection for Filters 1, 2, 3, 4, 6, 9, 14, 15, 17, 18, 19, 20, 21, & 22. This project includes procurement, removal, disposal, construction, testing, and placing into service the equipment and materials shown on the Drawings and Specifications. This project includes the following project elements for each filter covered by these Contract Documents; (1) Remove and dispose of the existing filter media in all Filters identified in the scope of work. The existing Media has calcified and is very difficult to break-up and remove. Manufacturer to inspect underdrains, identify any repairs required and/or recommend replacement if underdrain is beyond repair. (2) Inspect influent valves, clean, repair. If influent valves are beyond repair replace as required. (3) Furnish, install, and test new filter media and gravel in all Filters identified in the scope of work. Gravel, sand, and anthracite, to be installed per contract documents. Top of anthracite shall be 2" below existing agitator bar to allow for free operation of agitator bar.

Drawing Plans:

The City of Fort Lauderdale's FiveAsh water treatment plant is a secured facility and is exempt from the Public Records Law, pursuant to FL Statute Chapter 119.071. Interested parties must log into Bidsync.com to access the City of Fort Lauderdale Plan & Specification Request Form, AND must follow instructions contained therein.

Access to the site visit is only available to pre-approved plan-holders originating from the City of Fort Lauderdale Plan & Specification Request Form. Non-approved attendees will not be allowed to participate in the site visit. To avoid any issues, Plans Custodians should bring proof of approval to the site visit.

Licensing Requirements: Possession of a State of Florida Certified General Contractor's License is required for this Project.

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

Pre-Bid Meeting: November 3, 2021

10:00 AM

Location:

FiveAsh Water Treatment Plant

4321 NW 9th Avenue

Fort Lauderdale, Florida

FiveAsh Training room



While attendance is not mandatory, it is strongly suggested that all contractors attend the pre-proposal conference. It will be the sole responsibility of the bidder to inspect the City's location and become familiar with the scope of the City's requirements and systems prior to submitting a proposal. No variation in price or conditions shall be permitted based upon a claim of ignorance. A proposal will be considered evidence that the proposer has familiarized himself with the nature and extent of the work, equipment, materials, and labor required.

However, it will be the sole responsibility of the bidder to inspect the City's location(s)/facilities and become familiar with the scope of the City's requirements and systems prior to submitting a proposal. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a proposal will be considered evidence that the proposer has familiarized himself with the nature and extent of the work, equipment, materials, and labor required.

Bid Security: A certified check, cashier's check, bank officer's check or bid bond for **FIVE** percent of the bid amount, made payable to the City of Fort Lauderdale, Florida, shall accompany each offer.

Bid Bonds:

Bidders can submit bid 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 BIDSINC customer care department.
- 2) Bidders may **upload** their original executed bid bond on BIDSINC to accompany their electronic bids ~~with the electronic proposal~~, and deliver the original, signed and sealed hard copy within **five (5)** business days after bid opening, with the company name, bid number and title clearly indicated.
- 3) Bidders can **hand deliver** their bid bond in a sealed envelope to the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, 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 bidder to ensure that his bid is submitted prior to the bid opening date and time listed. **PAPER BID SUBMITTALS WILL NOT BE ACCEPTED. BIDS MUST BE SUBMITTED ELECTRONICALLY VIA BIDSINC.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 bid. These forms of securities, as well as hard copy bid bonds, must be received on or before the Invitation to Bid (ITB) opening date and time, at the Finance Department, Procurement Services Division, 100 North Andrews Avenue, Room 619, Fort Lauderdale, Florida 33301-1016, with the bid number and title clearly indicated on the envelope.

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

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

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

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

INSTRUCTIONS TO BIDDERS

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

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

CONCERNING SUB-CONTRACTORS, SUPPLIERS, AND OTHERS - The amount of work that is sublet by the Bidder shall be limited by the condition that the Bidder 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.

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

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

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

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

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.

INSTRUCTIONS TO BIDDERS (continued)

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

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.

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

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

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

FILLING IN BIDS - All prices must be electronically submitted in the proposal pages, and all proposals must fully cover all items for which proposals are asked and no other. Where more than one person is interested, it is required that all persons interested or their legal representative make all verification and subscribe to the proposal.

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

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

INSTRUCTIONS TO BIDDERS (continued)

ADDITIONAL ITEMS OR SERVICES: The City may require additional items or services of a similar nature, but not specifically listed in the contract. The Contractor agrees to provide such items or services, and shall provide the City prices on such additional items or services. If the price(s) offered are not acceptable to the City, and the situation cannot be resolved to the satisfaction of the City, the City reserves the right to procure those items or services from other vendors, or to cancel the contract upon giving the Contractor thirty (30) days written notice.

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 Contractor shall be paid for the deleted portion on the basis of the estimated percentage of completion of such portion.

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

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

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

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

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 protest to the Procurement Division – Assistant Director of Finance, by delivering a letter of protest within five (5) days after a Notice of Intent to award is posted on the City's website at the following link: <http://www.fortlauderdale.gov/departments/finance/procurement-services/notices-of-intent-to-award>.

INSTRUCTIONS TO BIDDERS (continued)

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

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

CONTRACT - The bidder to whom award is made shall execute a written contract to do the work and maintain the same in good repair until final acceptance by the proper authorities, and shall furnish good and sufficient bonds as specified within ten (10) days after receiving such contract for execution. If the bidder to whom the first award is made fails to enter into a contract as provided, the award may be annulled and the contract let to the next lowest bidder who is reliable, responsible, and responsive in the opinion of the City Commission, and that bidder shall fulfill every stipulation and obligation as if such bidder were the original party to whom award was made.

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

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

Drawing Plans:

The City of Fort Lauderdale secured facilities are exempt from the Public Records Law, pursuant to FL Statute Chapter 119.071. Interested parties must log into Bidsync.com to access the City of Fort Lauderdale Plan & Specification Request Form, AND must follow instructions contained therein.

Access to the site visit (if any) is only available to pre-approved plan-holders originating from the City of Fort Lauderdale Plan & Specification Request Form. Non-approved attendees will not be allowed to participate in the site visit. To avoid any issues, Plans Custodians should bring proof of approval to the site visit.

SURETY BOND – The Contractor shall execute and record in the public records of Broward County, Florida, a payment and performance bond in an amount at least equal to the Contract Price with a surety insurer authorized to do business in the State of Florida as surety, ("Bond"), in accordance with Section 255.05, Florida Statutes (2021), as may be amended or revised, as security for the faithful performance and payment of all of the Contractor's obligations under the Contract Documents.

The successful bidder shall furnish a performance and payment bond in compliance with Section 255.05, Florida Statutes (2021), written by a Corporate Surety company, holding a Certificate of Authority from the Secretary of the Treasury of the United States as acceptable sureties on federal bonds, in an amount equal to the total amount payable by the terms of the contract, executed and issued by a Resident Agent licensed by and having an office in the State of Florida, representing such Corporate Surety, conditioned for the due and faithful performance of the work, and providing in addition to all other conditions, that if the Contractor, or his or its subcontractors, fail to duly pay for any labor, materials, or other supplies used or consumed by such Contractor, or his or its subcontractor or subcontractors, in performance of the work contracted to be done, the Surety will pay the same in the amount not exceeding the sum provided in such bonds, together with interest at the rate of fifteen percent (15%) per annum, and that they shall indemnify and hold harmless the City of Fort Lauderdale

INSTRUCTIONS TO BIDDERS (continued)

to the extent of any and all payments in connection with carrying out of the contract, which the City may be required to make under the law.

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

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

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

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

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

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

INSTRUCTIONS TO BIDDERS (continued)

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

LOCAL BUSINESS PREFERENCE - Section 2-186, Code of Ordinances of the City of Fort Lauderdale, provides for a local business preference. In order to be considered for a local business preference, a proposer must include the Local Business Preference Certification Statement of this RFQ, as applicable to the local business preference class claimed at the time of Proposal submittal:

Upon formal request of the City, based on the application of a Local Business Preference, the Proposer shall, within ten (10) calendar days, submit the following documentation to the Local Business Preference Class claimed:

- a. Copy of City of Fort Lauderdale current year business tax receipt, or Broward County current year business tax receipt, and
- b. List of the names of all employees of the proposer and evidence of employees' residence within the geographic bounds of the City of Fort Lauderdale or Broward County, as the case may be, such as current Florida driver license, residential utility bill (water, electric, telephone, cable television), or other type of similar documentation acceptable to the City.

Failure to comply at time of proposal submittal shall result in the Proposer being found ineligible for the local business preference.

Definitions:

- a. The term "Class A business" shall mean any business that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the city, and shall maintain a staffing level for the proposed work of at least fifty percent (50%) who are residents of the City of Fort Lauderdale.
- b. The term "Class B business" shall mean any business that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the city, or shall maintain a staffing level for the proposed work of at least fifty percent (50%) who are residents of the City of Fort Lauderdale.
- c. The term "Class C business" shall mean any business that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of Broward County.

INSTRUCTIONS TO BIDDERS (continued)

- d. The term "Class D business" shall mean any business that does not qualify as a Class A, Class B, or Class C business.

The complete local business preference ordinance may be found on the City's web site at the following link:

https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2AD_ARTVFI_DIV2PR_S2-186LOBUPR

DISADVANTAGED BUSINESS ENTERPRISE PREFERENCE - Section 2-185, Code of Ordinances of the City of Fort Lauderdale, provides for a disadvantaged business preference. In order to be considered for a disadvantaged business preference, a proposer must include a certification from a government agency, as applicable to the disadvantaged business preference class claimed at the time of Proposal submittal:

Upon formal request of the City, based on the application of a Disadvantaged Business Preference the Proposer shall within ten (10) calendar days submit the following documentation to the Disadvantaged Business Enterprise Preference Class claimed:

- a. Copy of City of Fort Lauderdale current year business tax receipt, or the Tri-County (Broward, Dade, West Palm Beach) current year business tax receipt, or proof of active Sunbiz status and
- b. List of the names of all employees of the proposer and evidence of employees' residence within the geographic bounds of the City of Fort Lauderdale or the Tri-County, as the case may be, such as current Florida driver license, residential utility bill (water, electric, telephone, cable television), or other type of similar documentation acceptable to the City.

Failure to comply at time of proposal submittal shall result in the Proposer being found ineligible for the Disadvantaged Business Enterprise Preference business preference.

Definitions:

- a. The term "disadvantaged Class 1 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the City, and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.
- b. The term "disadvantaged Class 2 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business within the limits of the City with a full-time employee(s) and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual. The term "Class D business" shall mean any business that does not qualify as a Class A, Class B, or Class C business.

INSTRUCTIONS TO BIDDERS (continued)

- c. The term "disadvantaged Class 3 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the Tri-County area and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.
- d. The term "disadvantaged Class 4 enterprise" shall mean any disadvantaged business enterprise that does not qualify as a Class A, Class B, or Class C business, but is located in the State of Florida and provides supporting documentation of its disadvantaged certification as established in the City's Procurement Manual.

The complete Disadvantaged Business Preference ordinance may be found on the City's website at the following link: <https://www.fortlauderdale.gov/home/showpublisheddocument?id=56883>

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.

LOBBYING ACTIVITIES - **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 <https://www.fortlauderdale.gov/home/showdocument?id=6036>.

GENERAL CONDITIONS

Unless otherwise modified in the Project's 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.

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

"Contractor" – shall mean the successful Bidder who has been employed by the City to perform the construction and related 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. In the case of any inconsistency in or between any parts of this Contract, the Project Manager 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" - includes the terms "professional engineer" and "licensed engineer" and means a person who is licensed to engage in the practice of engineering under Florida Statute, Chapter 471. An Engineer may be a City employee or a consultant hired by the City.

"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.

GENERAL CONDITIONS (continued)

"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 a professional designated by the City to manage the Project under the supervision and direction of the Public Works Director or designee.

"Public Works Director" – shall mean the Public Works Director of the City of Fort Lauderdale.

"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 Project Manager.

"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, field conditions, 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.

Any failure by the Contractor to acquaint itself with all the Site conditions shall not relieve Contractor from responsibility for properly estimating the difficulty or cost thereof under the Contract Documents.

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 Contractor 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. The following requirements shall be met in order for the substitution to be considered:

1. Requests for substitution shall be accompanied by such technical data, as the party making the request desires to submit. The Project Manager may consider reports from

GENERAL CONDITIONS (continued)

reputable independent testing laboratories, verified experience records from previous users and other written information valid in the circumstances; and

2. 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
3. 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
4. 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.

If a proposed substitution is approved by the Project Manager, 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 – CONSTRUCTION RESOURCES – Contractor shall provide all labor and equipment necessary to complete the installation within a timely manner. Contractor shall provide details as to manpower and equipment to be dedicated to the project in its Work Plan. Contractor is responsible for making arrangements, obtaining and purchasing construction water services if required to complete the work.

GC - 05 - CONTROL OF THE WORK - The Project Manager shall have full control and direction of the Work in all respects. The Project Manager 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 Project Manager may desire respecting the quality of the Work and materials and the manner of conducting the Work. Should the Contractor be 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 Project Manager so that proper and adequate inspection may be provided. **If providing advanced notice, it can be “at least three (3) calendar days in advance.”** Such Work shall be done only under such regulations as are furnished in writing by the Project Manager, 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 Project Manager, 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.

GC - 06 - SUB-CONTRACTOR - The Contractor shall not sublet, in whole or any part of the Work without the written consent and approval of the Project Manager. Within ten (10) days after official notification of starting date, the Contractor must submit in writing, to the Project Manager, a list of all Sub-contractors. No Work shall be done by any sub-contractor until such Sub-contractor has been officially approved by the Project Manager. A sub-contractor not appearing on the original list will not be approved without written request submitted to the Project Manager 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 Project Manager, for neglect of duty, incompetence or misconduct.

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

GENERAL CONDITIONS (continued)

Contractor shall be fully responsible for all acts and omissions of its 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 - 07 - QUANTITIES - Contractor recognizes and agrees that the quantities shown on plans and Bid/Price Schedule are estimates only and may vary during actual construction. No change shall 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 Project Manager 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 Public Works Director 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 - 08 - 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 - 09 - PERMITS AND PROTECTION OF PUBLIC – Permits on file with the City and/or those permits to be obtained by the Contractor, 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.

Contractor shall secure all permits and licenses required for completing the Project. Contractor will obtain the necessary State, County, and City construction/work permits if required.

The Contractor shall comply with all applicable Codes, Standards, Specifications, etc. related to all aspects of the Project.

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 to all affected parties prior to proceeding with the Work.

GENERAL CONDITIONS (continued)

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.

GC - 10 - DISEASE REGULATIONS - The Contractor shall enforce all sanitary regulations and take all precautions against infectious diseases as the Project Manager 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 - 11 - CONTRACTOR TO CHECK PLANS, SPECIFICATIONS, AND DATA - The Contractor shall verify all dimensions, quantities, and details shown on the plans, supplementary drawings, or schedules, and shall notify the Project Manager 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 - 12 - MATERIALS AND WORKMANSHIP - All material shall be new and the 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 Project Manager's decision shall be final. Wherever the Plans, Specifications, Contract Documents, or the directions of the Project Manager are unclear as to what is permissible and/or fail to note the quality of any Work, that interpretation will be made by the Project Manager, which is in accordance with approved modern practice, to meet the particular requirements of the Contract.

Florida Power & Light Company will provide all Project conduit, conduit couplings, conduit bends, splice boxes, pull boxes, equipment pads, equipment chambers, etc. necessary for the installation of those facilities to be installed for FP&L's use. Contractor shall be responsible for obtaining materials from FP&L. Contractor shall also be responsible for the quantity and maintaining quality of the material obtained from FP&L. Contractor shall be responsible for obtaining and providing all non-FP&L provided materials including but not limited to AT&T materials and Comcast materials. Contractor shall be responsible for material storage and security. Contractor shall provide details for storage and security in Contractor's Work Plan.

GC - 13 - COMPLETED WORK, INSPECTIONS AND ACCEPTANCE - Contractor shall schedule Project inspections two (2) business days in advance with FP&L and the City. Contractor shall coordinate with FP&L to have all completed work inspected and accepted in writing by the FP&L inspector. Contractor will secure such acceptance in writing for Completed tasks prior to obtaining approval and acceptance from the City, and prior to issuance of a pay request being released for progress payment. Contractor shall notify the Project Manager in advance of scheduled FP&L inspections as to the work to be inspected and the scheduled time. As-built survey, sealed and signed by the a Professional Surveyor registered in the State of Florida, for each task shall be provided by the Contractor prior to City's acceptance and final payment.

GC - 14 - 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

GENERAL CONDITIONS (continued)

re-established by a Professional surveyor registered in the State of Florida if disturbed or destroyed during the course of construction.

GC - 15 - RESTROOM FACILITIES - Contractor shall provide portable toilet facilities for employee's use at a location within the Work site to be determined by the City. Employees shall not relieve themselves at any other place within the City Limits.

GC - 16 - PROGRESS MEETINGS - Weekly Status meetings will be conducted with representatives from the City, FP&L and the Contractor. Contractor shall budget time to participate in such meetings. A well-run Project should result in short meetings.

GC - 17 - ISSUE RESOLUTION - Should Contractor become engaged in a dispute with a resident or a City employee, the Contractor shall report the situation to the Project Manager immediately. It shall be mandatory that the City participate in any dispute resolution. Failure of Contractor personnel to notify the City shall obligate Contractor to replace the offending employee immediately if requested by the City.

GC - 18 - CITY SECURITY-CONTRACTOR AND SUBCONTRACTOR EMPLOYEE INFORMATION - Prior to commencing work, Contractor shall provide to the City a list of all personnel and subcontractors on site. The list will include the name, address, birth date and driver's license number for all personnel. All personnel and subcontractors on site will have on their person a company photo ID during all stages of the construction. Contractor shall provide standard required personal information per current City procedures.

GC - 19 - POST-CONSTRUCTION SURVEY - The Contractor shall provide as-built survey, sealed and signed by a registered surveyor in the State of Florida, as a condition of final payment.

GC - 20 - KEY PERSONNEL - Contractor shall provide as part of the Work Plan, resumes for all key project personnel providing supervision and project management functions. Resumes shall include work history and years of experience performing this type work. Contractor's onsite superintendent shall be knowledgeable and experienced in such overhead to underground conversion work.

GC - 21 - EXISTING UTILITY SERVICE - All existing utility service shall be maintained with a minimum of interruption at the expense of the Contractor.

GC - 22 - 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.

GENERAL CONDITIONS (continued)

GC - 23 - 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 - 24 - ACCIDENTS - The Contractor shall provide such equipment and facilities as are necessary and/or required, in the case of accidents, for first aid 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 Project Manager 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 - 25 - 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 - 26 - 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, the Project Manager may stop the Work until the issue is resolved to the City's satisfaction.

GC - 27 - SITE CLEANUP AND RESTORATION - The Contractor shall remove all debris and unused or discarded materials from the work site daily. Contractor shall clean the work site to remove all directional drilling "Driller's Mud" materials. No "Driller's Mud" residue shall be allowed to remain in the soil or on the surface of the land or vegetation. All debris and drilling materials must be disposed of offsite at an approved location.

The Contractor shall promptly restore all areas disturbed that are outside the Project limits in equal or better condition at no additional cost to the City.

GENERAL CONDITIONS (continued)

GC - 28 - COURTEOUS BEHAVIOR AND RESPECT FOR RESIDENTS AND PROPERTY – The Contractor and its employees, associates and sub-contractors shall maintain courteous behavior at all times and not engage in yelling, loud music, or other such activities. Contractor's employees shall not leave trash or other discarded items at the Work Site, especially on any private property. In the event complaints arise, Contractor shall immediately remove such offending employees from the project if requested to do so by the Project Manager. Contractor's employees shall not trespass on any private property unless necessary to complete the work but with prior permission from the owner.

Contractor shall notify and obtain permission from the residents 24 hours in advance when planning to work within the resident's property. In addition, Contractor shall notify the resident prior to entering their property to perform work or inspect/ investigate the work site. Contractor shall not block residents' driveways unnecessarily. Contractor shall not park equipment on landscaped areas when the vehicle is not needed for the current construction activities. Contractor shall be responsible for repair and/or replacement of all damaged landscaping within 48 hours including repairing vehicle wheel impressions, irrigation systems, lighting systems, structures, or any other items of resident's property. Contractor shall not destroy, damage, remove, or otherwise negatively impact any landscaping within or outside the right-of-way without prior approval from the Project Manager.

GC - 29 - 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 Project Manager 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 - 30 - 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.

All traffic control devices, flashing lights, signs and barricades shall be maintained in working condition at all times and conform to Manual of Uniform Traffic Control Devices (MUTCD), latest edition.

GC - 31 - COORDINATION - The Contractor shall notify all utilities, transportation department, etc., in writing, with a copy to the Project Manager 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 its 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 as may be directed by the Project Manager.

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

GENERAL CONDITIONS (continued)

GC - 32 - 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 - 33 - 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 (2020), 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 (2020), as may be amended or revised, 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 (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.

GC - 34 - 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 - 35 - 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.

GENERAL CONDITIONS (continued)

GC - 36 - PUBLIC RECORDS/TRADE SECRETS/COPYRIGHT: The Proposer's response to the Solicitation is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this Solicitation and the Contract to be executed for this Solicitation, subject to the provisions of Chapter 119.07 of the Florida Statutes.

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

Telephone Number: (954) 828-5002

Mailing Address: City Clerk's Office
100 N. Andrews Avenue
Fort Lauderdale, Florida 33301-1016

E-mail: prcontract@fortlauderdale.gov

GENERAL CONDITIONS (continued)

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 (2020), 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 Agreement if the Contractor does not transfer the records to the City.
4. Upon completion of the Agreement, 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 Agreement, 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 Agreement, 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.

SPECIAL CONDITIONS

01. PURPOSE

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

02. TRANSACTION FEES

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

03. SUBMISSION OF BIDS

It is the sole responsibility of the Contractor to ensure that their bid is submitted electronically through BidSync at www.bidsync.com, and that any bid security not submitted via BidSync reaches the City of Fort Lauderdale, Procurement Services Division, 6th floor, Room 619, 100 N. Andrews Avenue, Fort Lauderdale, Florida 33301-1016, in a sealed envelope marked on the outside with the ITB solicitation number and Contractor's name, no later than the time and date specified in this solicitation. **PAPER BID SUBMITALS WILL NOT BE ACCEPTED. PLEASE SUBMIT YOUR BID RESPONSE ELECTRONICALLY.**

04. INFORMATION OR CLARIFICATION

For information concerning procedures for responding to this solicitation, contact **NAME, Procurement Specialist** at (954) 828-5189 or email at mkleinpeter-zamora@fortlauderdale.gov. Such contact shall be for clarification purposes only.

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

05. CONTRACT TIME

- 5.1 The Contractor recognizes that TIME IS OF THE ESSENCE. The Work shall commence within **21** calendar days of the date of the Notice to Proceed.
- 5.2 The Work shall be Substantially Completed within **_840** calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

- 5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within 870 calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

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

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

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

- 5.7 The termination date for issuance of Task Orders shall be when the funds are depleted or 870 days from effective date of the agreement, whichever comes first. All task orders issued before the contract termination must be completed under this contract even if contract has expired.

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

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

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

06. BID SECURITY

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

07. REQUIRED LICENSES/CERTIFICATIONS

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

Possession of a Certified General Contractors License is required for this Project

Note: Contractor must have proper licensing and shall submit evidence of same with its bid response.

08. SPECIFIC EXPERIENCE REQUIRED

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

he following expertise is required to be considered for this contract. Specific references attesting to this expertise must be submitted with bid. Contractor must have completed three (3) similar projects in water treatment plants and be familiar with the Leopold Filter system. By signing this bid solicitation, contractor is affirming that this expertise will be provided for this contract at no additional charge.

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

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

09. BID ALLOWANCE

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

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

Allowance	\$
Permit fees and testing allowance	\$3,000.00
Additional equipment rental allowance	\$5,000.00
Additional labor allowance	\$20,000.00
Additional material allowance	\$15,000.00
Total	\$43,000.00

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

10. INSURANCE

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.

Disposal Coverage

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

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.

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 or any surviving obligation of the Contractor following expiration or early termination of the Agreement 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.

11. PERFORMANCE AND PAYMENT BOND: 100%

Number of awards anticipated: One (1)

14. PAYMENT for this Project will be by p-card

Payment Method The City has implemented a Purchasing Card (P-Card) Program utilizing the MASTERCARD and VISA networks. Purchases from this contract will be made utilizing the City's Purchasing Card. Consultant will receive payment from the purchasing card in the same manner as other credit card purchases. Accordingly, Consultants must presently have the ability to accept these credit cards or take whatever steps necessary to implement the ability before the start of the contract term, or contract award by the City. All costs associated with the Consultant's participation in this purchasing program shall be borne by the Consultant. The City reserves the right to revise this program as necessary.

15. WORK SCHEDULE (including overtime hours):

Regular work hours: **8:00 am to 5:00 pm, Monday through Friday.**

City Inspector Hours: **8:00 am to 4:30 pm, Monday through Friday.**

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

16. INSPECTION OVERTIME COST: \$100/hr.

**CITY OF FORT LAUDERDALE
CONSTRUCTION AGREEMENT**

THIS Agreement made and entered into this _____ day of _____, 2021, by and between the City of Fort Lauderdale, a Florida municipal corporation (City) and _____, a Florida _____ Company/Corporation (Contractor), ("Party" or collectively "Parties");

WHEREAS, the City desires to retain a contractor for the Project as expressed in its Invitation to Bid No._____, Project Number_____, , which was opened on _____; and,

WHEREAS, the Contractor has expressed its willingness and capability to perform the necessary work to accomplish the Project.

NOW, THEREFORE, the City and the Contractor, in consideration of the mutual covenants and conditions contained herein and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, agree as follows:

ARTICLE 1 – DEFINITIONS

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

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

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

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

- 1.10 Contract Price – The monies payable to the Contractor by the City under the Contract Documents and in accordance with the line item unit prices listed in the Bid.
- 1.11 Contract Time – The number of calendar days stated in the Agreement for the completion of the Work. The dates on which the work shall be started and shall be completed as stated in the Notice to Proceed.
- 1.12 Contractor – The person, firm, company, or corporation with whom the City has entered into the Agreement, including but not limited to its employees, agents, representatives, contractors, subcontractors, their subcontractors and their other successors and assigns.
- 1.13 Day – A calendar day of twenty-four (24) hours ending at midnight.
- 1.14 Defective – When modifying the word "Work" refers to work that is unsatisfactory, faulty, or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to the Project Manager's recommendation of final payment.
- 1.15 Effective Date of the Agreement – The effective date of the Agreement shall be the date the Contract is executed by the Parties. The Contractor shall provide all required payment and performance bonds and insurances to the City within ten (10) Calendar

days following the City Commission approval. Upon verification of all bonds and insurances, the City will issue a notice to proceed (NTP) to the Contractor.

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

- 1.24 Plans - The drawings which show the character and scope of the work to be performed and which have been prepared or approved by the City and/or are referred to in the Contract Documents.
- 1.25 Premises (otherwise known as Site or Work Site) – means the land, buildings, facilities, etc. upon which the Work is to be performed.
- 1.26 Project – The total construction of the Work to be provided as defined in the Contract Documents.
- 1.27 Project Manager - The employee of the City, or other designated individual who is herein referred to as the Project Manager, will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the contract Documents in connection with completion of the Work in accordance with this Agreement. The Project Manager, or designee, shall be the authorized agent for the City unless otherwise specified.
- 1.28 Punch List - The City's list of Work yet to be done or be corrected by the Contractor, before the Final Completion date can be determined by the City.
- 1.29 Record Documents - A complete set of all specifications, drawings, addenda, modifications, shop drawings, submittals and samples annotated to show all changes made during the construction process.
- 1.30 Record Drawings or "As-Builts" - A set of drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the Contractor. These documents will be signed and sealed by a Professional Engineer or a Professional Land Surveyor licensed in the State of Florida, and employed by the Contractor at no cost to the City.
- 1.31 Substantially Completed Date – A date when the Contractor has requested in writing, stating that the Work is substantially completed and is ready for an inspection and issuance of a final punch list for the Project. If, at the time of inspection, it is determined the project is substantially completed, the City will issue a letter of Substantial Completion along with a punch list of incomplete or deficient items to be completed prior to requesting a Final Completion inspection.
- 1.32 Work – The entire completed delivered product or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating material and equipment into the product, all as required by the Contract Documents.

ARTICLE 2 – SCOPE OF WORK

- 2.1 The Contractor shall complete all work as specified or indicated in the Contract Documents. The Project for which the Work under the Contract Documents may be the whole or only part is generally described as follows:
- 2.2 All Work for the Project shall be constructed in accordance with the approved plans and Specifications. The Work generally involves:

PROJECT DESCRIPTION

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

This traffic calm and improvement project is located at Flagler Drive and at NE 2nd Avenue Intersection, in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, reconfiguration and raising of existing intersection including clearing and grubbing, demolition, base, asphalt, concrete work, curbs, signs, pavement markings, MOT and other incidental activities.

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

ARTICLE 3 – PROJECT MANAGER

- 3.1 The Project Manager is hereby designated by the City as Scott Teschky whose address is, 100 N Andrews street, Fort Lauderdale, FL 33301 telephone number: (954) 828-6195, and email address is steschky@fortlauderdale.gov. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement.

ARTICLE 4 – CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between the City and Contractor are incorporated herein and attached to this Agreement, and consist of the following:

- 4.1 This Agreement.
- 4.2 Exhibits to this Agreement: (Plans sheets [] to [] inclusive).
- 4.3 Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance.

- 4.4 Notice of Award and Notice to Proceed.
- 4.5 General Conditions as amended by the Special Conditions.
- 4.6 Technical Specifications.
- 4.7 Plans/Drawings.
- 4.8 Addenda number _____ through _____, inclusive.
- 4.9 Bid Form and supplement Affidavits and Agreements.
- 4.10 All applicable provisions of State and Federal Law.
- 4.11 Invitation to Bid No., _____, Instructions to Bidders, and Bid Bond.
- 4.12 Contractor's response to the City's Invitation to Bid No., _____, dated _____.
- 4.13 Schedule of Completion.
- 4.14 All amendments, modifications and supplements, change orders and work directive changes issued on or after the Effective Date of the Agreement.
- 4.15 Any additional documents that are required to be submitted under the Agreement.
- 4.16 Permits on file with the City and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement.

In the event of any conflict between the documents or any ambiguity or missing specification or instruction, the following priority is established:

- a. Agreement
- b. Approved change orders, addenda or amendments.
- c. Specifications (quality) and Drawings (location and quantity).
- d. Supplemental conditions or special terms.
- e. General Terms and Conditions.
- f. This Agreement dated _____, and any attachments.
- g. Invitation to Bid No., _____, and the specifications prepared by the City.
- h. Contractor's response to the City's Invitation to Bid No., _____, dated _____.

- i. Schedule of Values.
- j. Schedule of Completion.

If during the performance of the Work, Contractor finds a conflict, error or discrepancy in the Contract Documents, Contractor shall so report to the Project Manager, in writing, within five (5) calendar days, and before proceeding with the Work affected shall obtain a written interpretation or clarification from the City.

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

ARTICLE 5 – CONTRACT TIME

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

ARTICLE 6 – CONTRACT PRICE

- 6.1 City shall pay Contractor for performance of the Work in accordance with Article 7, subject to additions and deletions by Change Order, as provided for in this Agreement.
- 6.2 The parties expressly agree that the Contract Price, which shall not exceed the amount of \$_____, constitutes the total maximum compensation payable to Contractor for performing the Work, plus any Work done pursuant to a Change Order. The Contract Price is in accordance with the line item unit prices listed in the Bid. Line items are based on a unit price cost multiplied by a defined quantity. Any additional duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change to the Contract Price.

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

ARTICLE 7 – PAYMENT

- 7.1 Contractor shall submit Applications for Payment in accordance with the Contract Documents. Applications for Payment will be processed by City as provided for in the General Conditions.
- 7.2 Progress Payments. City shall make progress payments on account of the Contract Price on the basis of Contractor's monthly Applications for Payment, which shall be submitted by the Contractor between the first (1st) and the tenth (10th) day after the end of each calendar month for which payment is requested. All progress payments will be made on the basis of the progress of the Work completed.
- 7.3 Prior to Final Completion, progress payments will be made in an amount equal to ninety-five percent (95%) of the value of Work completed less in each case the aggregate of payments previously made.
- 7.4 Final Payment. Upon final completion of the Work in accordance with the General Conditions, as may be supplemented, the City shall pay Contractor an amount sufficient to increase total payments to one-hundred percent (100%) of the Contract Price. However, not less than five percent (5%) of the Contract Price shall be retained until Record Drawings (as-builts), specifications, addenda, modifications and shop drawings, including all manufacturers' instructional and parts manuals are delivered to and accepted by the City.
- 7.5 City may withhold, in whole or in part, payment to such extent as may be necessary to protect itself from loss on account of:
- 7.5.1 Defective work not remedied.
 - 7.5.2 Claims filed or reasonable evidence indicating probable filing of claims by other parties against Contractor or City because of Contractor's performance.
 - 7.5.3 Failure of Contractor to make payments properly to subcontractors or for material or labor.
 - 7.5.4 Damage to another contractor not remedied.
 - 7.5.5 Liquidated damages and costs incurred by Consultant for extended construction administration, if applicable.
 - 7.5.6 Failure of Contractor to provide any and all documents required by the Contract Documents.

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

- 7.6 The City shall make payment to the Contractor in accordance with the Florida Prompt Payment Act, Section 218.70, Florida Statutes (2020), as amended or revised, provided, however, complete and error free pay application is submitted.

The City shall make payment to the Contractor by p-card.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

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

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

8.7 Contractor has given City written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution by City is acceptable to the Contractor.

8.8 Labor

8.8.1 The Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The Contractor shall at all times maintain good discipline and order at the site.

8.8.2 The Contractor shall, at all times, have a competent superintendent, capable of reading and thoroughly understanding the drawings and specifications, as the Contractor's agent on the Work, who shall, as the Contractor's agent, supervise, direct and otherwise conduct the Work.

8.8.3 The Contractor shall designate the superintendent on the job to the City, in writing, immediately after receipt of the Notice to Proceed. The Contractor understands and agrees that the superintendent's physical presence on the job site is indispensable to the successful completion of the Work. If the superintendent is frequently absent from the job site, the Project Manager may deliver written notice to the Contractor to stop work or terminate the Agreement in accordance with Article 17.

8.8.4 The Contractor shall assign personnel to the job site that have successfully completed training programs related to trench safety, confined space and maintenance of traffic. A certified "competent person" shall be assigned to the job site. Personnel certified by the International Municipal Signal Associations with Florida Department of Transportation qualifications are required relative to maintenance of traffic. Failure to pursue the Work with the properly certified supervisory staff may result in notice to stop work or terminate the Agreement in accordance with Article 17.

8.9 Materials:

8.9.1 The Contractor shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of Work.

8.9.2 All material and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. Suppliers shall be selected and paid by the Contractor; the City reserves the right to approve all suppliers and materials.

8.10 Work Hours: 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 a.m. and 5:00 p.m.**, Monday through Friday.

Unless approved by the City in advance, the Contractor will not perform 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. For any overtime inspection required by City personnel, 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 at a rate of \$100.00 per hour.** The cost to the Contractor to reimburse the City for overtime inspection is established at direct-labor and overtime costs for each person or inspector required. Incidental overtime costs for engineering, testing and other related services will also be charged to the Contractor at the actual rate accrued.

- 8.11 Patent Fee and Royalties: The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work, or any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. The Contractor hereby expressly binds himself or itself to indemnify and save harmless the City from all such claims and fees and from any and all suits and action of every name and description that may be brought against City on account of any such claims, fees, royalties, or costs for any such invention or patent, and from any and all suits or actions that may be brought against said City for the infringement of any and all patents or patent rights claimed by any person, firm corporation or other entity.
- 8.12 Permits: The Contractor shall obtain and pay for all permits and licenses. There shall be no allowance for Contractor markup, overhead or profit for permits and licenses. The Contractor shall pay all government charges which are applicable at the time of opening of proposals. It shall be the responsibility of the Contractor to secure and pay for all necessary licenses and permits of a temporary nature necessary for the prosecution of Work.
- 8.13 Law and Regulations: The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the Work. If the Contractor observes that the specifications or plans are in conflict, the Contractor shall give the Project Manager prompt written notice thereof within five (5) calendar days, and any necessary changes shall be adjusted by any appropriate modifications. If the Contractor performs any work knowing or having reason to know that it is contrary to such laws, ordinances, rules, standards, specifications and regulations, and without such notice to the Project Manager, the Contractor shall bear all costs arising therefrom.
- 8.14 Taxes: The Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the laws of the City of Fort Lauderdale, County of Broward, and the State of Florida.
- 8.15 Contractor Use of Premises: The Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits and/or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

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

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

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

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

- 8.16 Project Coordination: The Contractor shall provide for the complete coordination of the construction effort. This shall include, but not necessarily be limited to, coordination of the following:

- 8.16.1 Flow of material and equipment from suppliers.
- 8.16.2 The interrelated work with affected utility companies.
- 8.16.3 The interrelated work with the City where tie-ins to existing facilities are required.
- 8.16.4 The effort of independent testing agencies.
- 8.16.5 Notice to affected property owners as may be directed by the Project Manager.
- 8.16.6 Coordination with and scheduling of all required inspections from all permitting agencies.

- 8.17 Project Record Documents and Final As-Builts (Record Drawings): Contractor shall be responsible for maintaining up-to-date redline as-built drawings, on site, at all times during construction. All as-built information shall be surveyed and verified by a professional land surveyor registered in the State of Florida. Contractor shall provide the City with a minimum of three (3) sets of signed and sealed record drawings (Final As-Builts) and a CD of the electronic drawings files created in AutoCad 2014 or later.

All costs associated with survey work required for construction layout and as-built preparation shall be the responsibility of the Contractor.

8.18 Safety and Protection:

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

8.18.1.1 All employees working on the project and other persons who may be affected thereby.

8.18.1.2 All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site.

8.18.1.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

8.18.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and utilities when execution of the Work may affect them at least seventy-two (72) hours in advance (unless otherwise required). All damage, injury or loss to any property caused, directly or indirectly, in whole or in part by the Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and accepted by the City.

8.19 Emergencies: In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the City is obligated to act to prevent threatened damage, injury or loss. The Contractor shall give the Project Manager prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

8.20 Risk of Loss: The risk of loss, injury or destruction shall be on the Contractor until acceptance of the Work by the City. Title to the Work shall pass to the City upon acceptance of the Work by the City.

8.21 Environmental: The Contractor has fully inspected the Premises and agrees, except as to the presence of any asbestos, to accept the Premises in an "as is" physical condition, without representation or warranty by the City of any kind, including, without limitation, any and all existing environmental claims or obligations that may arise from the presence of any "contamination" on, in or about the Premises. Further, Contractor and all entitles claiming by, through or under the Contractor, releases and discharges the City, from

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

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

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

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

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

penalties incurred pursuant to any applicable provisions of Florida law; and (iii) the cost and expenses of abatement, correction or cleanup, fines, damages, response costs, or penalties which arise from the provisions of any other statute, law, regulation, code ordinance, or legal requirement state or federal; and (c) liability for personal injury or property damage arising under any statutory or common law tort theory, including damages assessed for the maintenance of a public private nuisance, response costs, or for the carrying on of an abnormally dangerous activity.

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

8.23 No Liens: If any subcontractor, supplier, laborer, or materialmen of Contractor or any other person directly or indirectly acting for or through Contractor files or attempts to file a mechanic's or construction lien against the real property on which the Work is performed or any part or against any personal property or improvements or claim against any monies due or to become due from the City to Contractor or from Contractor to a subcontractor, for or on account of any work, labor, services, material, equipment, or other items furnished in connection with the Work or any Change Order, Contractor agrees to satisfy, remove, or discharge such lien or claim at its own expense by bond, payment, or otherwise within twenty (20) days of the filing or from receipt of written notice from the City.

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

8.24 Weather Emergencies: Upon issuance of a hurricane watch by the National Weather Service, the Contractor shall submit to the City a plan to secure the work area in the event a hurricane warning is issued. The plan shall detail how the Contractor will secure the Premises, equipment and materials in a manner as to prevent damage to the Work and prevent materials and equipment from becoming a hazard to persons and property on and around the Premises. The plan shall include a time schedule required to

accomplish the hurricane preparations and a list of emergency contacts that will be available and in the City before, during and immediately after the storm.

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

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

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

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

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

- 8.26 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assisted Contracts: The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26 and as approved by DOT, is incorporated by reference in this Agreement. Implementation of this program is a legal

obligation and failure to carry out its terms shall be treated as a violation of this Agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 *et seq.*).

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

ARTICLE 9 – CITY’S RESPONSIBILITIES

- 9.1 The City shall furnish the data required of the City under the Contract Documents promptly and shall make payments to the Contractor promptly after they are due as provided in Article 7.
- 9.2 The City shall provide public rights-of-way and easement, where available, for the installation of conduits, transformers pads and related appurtenances only.
- 9.3 Technical Clarifications and Interpretations:
- 9.3.1 The City shall issue, with reasonable promptness, such written clarifications or interpretations of the Contract Documents as it may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. Should the Contractor fail to request interpretation of questionable items in the Contract Documents, the City shall not entertain any excuse for failure to execute the Work in a satisfactory manner.
- 9.3.2 The City shall interpret and decide matters concerning performance under the requirements of the Contract Documents, and shall make decisions on all claims, disputes or other matters in question. Written notice of each claim, dispute or other matter will be delivered by claimant to the other Party but in no event later than five (5) days after the occurrence of event and written supporting date will be submitted to the other Party within five (5) days after such occurrence. All written decisions of the City on any claim or dispute will be final and binding.
- 9.4 The Contractor shall perform all Work to the reasonable satisfaction of the City in accordance with the Contract Documents. In cases of disagreement or ambiguity, the City shall decide all questions, difficulties, and disputes of whatever nature, which may arise under or by reason of this Agreement or the quality, amount and value of the Work, and the City’s decisions on all claims, questions and determination are final.
- 9.5 Cancellation For Unappropriated Funds: The obligation of the City for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period,

and continuation of the contract into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

ARTICLE 10 – BONDS AND INSURANCE

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

10.1.1 Performance Bond: The Contractor shall execute and record in the public records of Broward County, Florida, a payment and performance bond in an amount at least equal to the Contract Price with a surety insurer authorized to do business in the State of Florida as surety, (“Bond”), in accordance with Section 255.05, Florida Statutes (2020), as may be amended or revised, as security for the faithful performance and payment of all of the Contractor’s obligations under the Contract Documents.

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

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

10.2 Insurance

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.

Disposal Coverage

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

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.

Insurance Certificate Requirements

- i. 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.
- j. 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.
- k. 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.
- l. In the event the Agreement term or any surviving obligation of the Contractor following expiration or early termination of the Agreement 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.
- m. 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.
- n. The City shall be named as an Additional Insured on all liability policies, with the exception of Workers' Compensation.
- o. The City shall be granted a Waiver of Subrogation on the Contractor's Workers' Compensation insurance policy.
- p. 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.

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

11.1.1 Warranty of Title: The Contractor warrants to the City that it possesses good, clear and marketable title to all equipment and materials provided and that there are no pending liens, claims or encumbrances against the equipment and materials.

11.1.2 Warranty of Specifications: The Contractor warrants that all equipment, materials and workmanship furnished, whether furnished by the Contractor, its subcontractors or suppliers, will comply with the specifications, drawings and other descriptions supplied or adopted and that all services will be performed in a workmanlike manner.

11.1.3 Warranty of Merchantability: The Contractor warrants that any and all equipment to be supplied pursuant to this Agreement is merchantable, free from defects, whether patent or latent in material or workmanship, and fit for the ordinary purposes for which it is intended.

11.2 Tests and Inspections: Contractor shall retain the services of an independent, certified, testing lab to perform all testing as required by the specifications, contract drawings, and any applicable permitting agency. Contractor shall provide evidence of certification to the City before the work and testing is done. Testing results shall be submitted to the Project Manager for review and approval at the time the results are provided to the Contractor. The Contractor shall give the Project Manager and City Inspector a minimum of twenty-four (24) hours' advanced notice of readiness of the Work for all required inspections, tests, or approvals and shall notify all applicable permitting agencies in a timely manner based on requirements set forth in the permit documents.

11.2.1 Neither observations by the Project Manager nor inspections, tests or approvals by others shall relieve the Contractor from its obligations to perform the Work in accordance with the Contract Documents.

11.3 Uncovering Work: If any work that is to be inspected, tested or approved is covered without approval or consent of the Project Manager, it must, if requested by the Project Manager, be uncovered for observation and/or testing. Such uncovering and replacement shall be at the Contractor's sole expense unless the Contractor has given the Project Manager timely notice of the Contractor's intention to cover such Work and the Project Manager has not acted with reasonable promptness in response to such notice.

11.3.1 If the Project Manager considers it necessary or advisable that Work covered in accordance with Paragraphs 11.2.1, 11.2.2 and 11.2.3 be observed by the City or inspected or tested by others, the Contractor at the City's request, shall uncover, expose or otherwise make available for observation, inspection or testing as the Project Manager may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, the Contractor shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. If, however, such work is not found to be defective, the Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection testing and reconstruction if it makes a claim therefore as provided in Articles 14 and 15.

11.4 City May Stop the Work: If the Work is defective, or the Contractor fails to supply sufficient skilled supervisory personnel or workmen or suitable materials or equipment or the work area is deemed unsafe, the City may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the City to stop the Work shall not give rise to any duty on the part of the City to exercise this right for the benefit of the Contractor or any other Party. The City will not award any increase in Contract Price or Contract Time if the Work is stopped due to the circumstances described herein.

11.5 Correction or Removal of Defective Work Before Final Payment: If required by the Project Manager, the Contractor shall promptly, without cost to the City and as specified by the Project Manager, either correct any defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by the City remove it from the site and replace it with non-defective Work.

11.6 One Year Correction Period After Final Payment: If within one (1) year after the date of final acceptance, or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any work is found to be defective, the Contractor shall promptly, without cost to the City and in accordance with the City's written instructions, either correct such defective Work, or, if it has been rejected by the City, remove it from the site and replace it with non-defective Work.

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

- 11.7 Acceptance of Defective Work, Deductions: If, instead of requiring correction or removal and replacement of defective Work, the City, at the city's sole option, prefers to accept it, the City may do so. In such a case, if acceptance occurs prior to the Project Manager's recommendation of final payments, a Change Order shall be issued incorporating the necessary revisions in the Contracts Documents, including appropriate reduction in the Contract Price; or if the acceptance occurs after such recommendation, an appropriate amount shall be paid by the Contractor to the City.
- 11.8 City May Correct Defective Work: If the Contractor fails within a reasonable time after written notice of the Project Manager to proceed to correct defective Work or to remove and replace rejected Work as required by the Project Manager in accordance with Paragraph 11.5, or if the Contractor fails to perform the Work in accordance with the Contract Documents, the City may, after seven (7) days written notice to the Contractor, correct and remedy any such deficiency. In exercising its rights under this paragraph, the City shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the City may exclude the Contractor from all or part of the site, take possession of all or part of the Work, suspend the Contractor's services related thereto and take possession of the Contractor's tools, construction equipment and materials stored at the site or elsewhere. The Contractor shall allow the City's representative agents and employees such access to the site as may be necessary to enable the City to exercise its rights under this paragraph. All direct and indirect costs of the City in exercising such rights shall be charged against the Contractor in an amount verified by the Project Manager, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of the Contractor's defective Work. The Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the City of the City's right hereunder.

ARTICLE 12 – INDEMNIFICATION

- 12.1 Disclaimer of Liability: The City shall not at any time, be liable for injury or damage occurring to any person or property from any cause, whatsoever, arising out of Contractor's construction and fulfillment of this Agreement.
- 12.2 Indemnification: For other, additional good valuable consideration, the receipt and sufficiency of which is hereby acknowledged:
- 12.2.1 Contractor shall, at its sole cost and expense, indemnify and hold harmless the City, its representatives, employees and elected and appointed officials from or on account of all claims, damages, losses, liabilities and expenses, direct, indirect or consequential including but not limited to fees and charges of engineers,

architects, attorneys, consultants and other professionals and court costs arising out of or in consequence of the performance of this Agreement at all trial and appellate levels. Indemnification shall specifically include but not be limited to claims, damages, losses, liabilities and expenses arising out of or from (a) the negligent or defective design of the project and Work of this Agreement; (b) any act, omission or default of the Contractor, its subcontractors, agents, servants or employees; (c) any and all bodily injuries, sickness, disease or death; (d) injury to or destruction of tangible property, including any resulting loss of use; (e) other such damages, liabilities, or losses received or sustained by any person or persons during or on account of any operations connected with the construction of this Project including the warranty period; (f) the use of any improper materials; (g) any construction defect including both patent and latent defects; (h) failure to timely complete the work; (i) the violation of any federal, state, county or City laws, ordinances or regulations by Contractor, its subcontractors, agents, servants, independent contractors or employees; (j) the breach or alleged breach by Contractor of any term of the Agreement, including the breach or alleged breach of any warranty or guarantee.

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

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

limitation, include attorney's fees, litigation costs, fees and expenses and all court costs and assessments, and which shall be deducted from any amount owing to Contractor. In the event the amount due Contractor is less than the amount required to satisfy Contractor's obligation under this, or any other article, paragraph or section of this Agreement, the Contractor shall be liable for the deficiency due the City.

- 12.2.5 The Contractor and the City agree that Section 725.06(2), Florida Statutes (2020), as may be amended or revised, controls the extent and limits of the indemnification and hold harmless provisions of this Agreement, if any, and that the Parties waive any defects in the wording of this Article that runs afoul of said statutory section.

ARTICLE 13 – CHANGES IN THE WORK

- 13.1 Without invalidating this Agreement, the City may, at any time or from time to time order additions, deletions or revisions in the Work through the issuance of Change Orders. Upon receipt of a Change Order, the Contractor shall proceed with the Work involved. All Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Article 14 or Article 15 on the basis of a claim made by either Party.
- 13.2 The Project Manager may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. Such changes must be in writing and signed by the City and the Contractor.
- 13.3 If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be the Contractor's responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. The Contractor shall furnish proof of such adjustment to the City.

ARTICLE 14 – CHANGE OF CONTRACT PRICE

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

- 14.1 Cost of the Work: The term "Cost of the Work" means the sum of all direct costs necessarily incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by the City, these costs shall be in amounts no higher than those prevailing in the City and shall include only the following items and shall not include any of the costs itemized in Paragraph 14.3:
- 14.1.1 Payroll costs for employees in the direct employ of the Contractor in the performance of the Work under schedules of job classifications agreed upon by the City and the Contractor. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus and cost

of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, worker's compensation, health and retirement benefits, bonuses, sick leave, vacation and applicable holiday pay.

14.1.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage, and required suppliers and field services. All cash discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to the City, and the Contractor shall make provisions so that they may be obtained.

14.1.3 Supplemental costs including the following:

- 14.1.3.1 Cost, including transportation and maintenance of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work.
- 14.1.3.2 Rentals of all construction equipment and machinery and the parts whether rented from the Contractor or others in accordance with rental agreements approved by the City, and the costs of transporting, loading, unloading, installation, dismantling and removal. The rental of any such equipment, machinery or parts shall cease when the use is no longer necessary for the Work.
- 14.1.3.3 Sales, consumer, use or similar taxes related to the Work and for which the Contractor is liable, imposed by laws and regulations.
- 14.1.3.4 Royalty payments and fees for permits and licenses.
- 14.1.3.5 The cost of utilities, fuel and sanitary facilities at the Work site.
- 14.1.3.6 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.
- 14.1.3.7 Cost of premiums for additional bonds and insurance required because of changes in the Work.

14.2 The Contract Price may only be increased by a Change Order when Work is modified in accordance with Article 13 and approved by the City in writing. Any claim for an increase in the Contract Price resulting from a Change Order shall be based on written notice delivered to the Project Manager within ten (10) days of the occurrence of the Change Order giving rise to the claim. Notice of the amount of the claim with supporting data shall be included in the Change Order and delivered within twenty (20) days of such occurrence unless Project Manager allows an additional period of time to ascertain accurate cost data. Any change in the Contract Price resulting from any such claim shall be incorporated in the Change Order. **IT IS EXPRESSLY AND SPECIFICALLY AGREED THAT ANY AND ALL CLAIMS FOR CHANGES TO THE CONTRACT PRICE SHALL BE WAIVED IF NOT SUBMITTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.**

14.3 Not Included in the Cost of the Work: The term “Cost of the Work” shall not include any of the following:

14.3.1 Payroll costs and other compensation of the Contractor’s officers executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditor, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by the Contractor whether at the site or in the Contractor’s principal or branch office for general administration of the work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 14.1.1, all of which are to be considered administrative costs covered by the Contractor’s fee.

14.3.2 Expenses of the Contractor’s principal and branch offices other than the Contractor’s office at the site.

14.3.3 Any part of the Contractor’s capital expenses, including interest on the Contractor’s capital employed for the Work and charges against the Contractor for delinquent payments.

14.3.4 Cost of premiums for all bonds and for all insurance whether or not the Contractor is required by the Contract Documents to purchase and maintain the same.

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

14.3.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 14.1.

14.4 Basis of Compensation: The Contractor’s compensation, allowed to the Contractor for overhead and profit, shall be determined as follows:

14.4.1 A mutually acceptable negotiated fee:

14.4.1.1 For costs incurred under Paragraphs 14.1.1 and 14.1.2, the Contractor’s fee shall not exceed five percent (5%).

14.4.1.2 No fee shall be payable on the basis of costs itemized under Paragraphs 14.1.3.1, 14.1.3.2, 14.1.3.3, 14.1.3.4, 14.1.3.5, 14.1.3.6, 14.1.3.7, 14.3.1, 14.3.2, 14.3.3, 14.3.4, 14.3.5 and 14.3.6.

14.4.1.3 The amount of credit to be allowed by the Contractor to the City for any such change which results in a net decrease plus a deduction in the Contractor’s fee by an amount equal to five percent (5%) for the net decrease.

14.4.1.4 When both additions and credits are involved in any one change the combined overhead and profit shall be figured on the basis of net increase if any, however, not to exceed five percent (5%) of the agreed compensation. Profit will not be paid on any Work not performed.

14.5 Cost Breakdown Required: Whenever the cost of any Work is to be determined pursuant to this Article, the Contractor will submit in form acceptable to the City an itemized cost breakdown together with supporting documentation. Whenever a change in the Work is to be based upon mutual acceptance of a lump sum, whether the amount is an addition, credit, or no-charge-in-cost, the Contractor shall submit an estimate substantiated by a complete itemized breakdown:

14.5.1 The breakdown shall list quantities and unit prices for materials, labor, equipment and other items of cost.

14.5.2 Whenever a change involves the Contractor and one (1) or more subcontractors and the change is an increase in the agreed compensation, the overhead and profit percentage for the Contractor and each subcontractor shall be itemized separately.

14.6 Time for the City to Approve Extra Work: Any Extra Work in an amount up to and not exceeding a cumulative amount of \$25,000 for a specific project can be approved by the City Manager and shall require a written Change Order proposal to be submitted to the Public Works Director for submittal and approval by the City Manager. Extra Work exceeding the cumulative amount of \$25,000 for a specific project must be approved by the City Commission and a written Change Order proposal must be submitted to the Public Works Director for submittal and approval by the City Manager and City Commission. No financial or time claim for delay to the project resulting from the Change Order approval process outlined above under Section 14.6 will be allowed.

ARTICLE 15 – CHANGE OF THE CONTRACT TIME

15.1 The Contract Time may only be changed by a Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to the Project Manager within five (5) days of the occurrence of the event giving rise to the claim. Any change in the Contract Time resulting from any such claim shall be incorporated in a Change Order.

15.2 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of the Contractor if a claim is made there for as provided in Paragraph 15.1. Such delays shall include but not be limited to, acts or neglect by the City, or to fires, floods, labor disputes, epidemics, abnormal weather conditions, pandemics, act of Governmental Authority, state of emergency, or acts of God.

15.3 All time limits stated in the Contract Documents are of the essence. The provisions of this Article 15 shall not exclude recovery for damages for delay by the Contractor.

15.4 Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the Contractor (non-affiliated Contractors) shall not give rise to a claim by the Contractor for damages for increases in material and/or labor costs. Such entities,

contractors and subcontractors include, but are not limited to, the City's contractors and subcontractors, Florida Power and Light Company, AT&T and Florida East Coast Railway, LLC.

- 15.5 Rights of Various Interests: Whenever work being done by City's forces or by other contractors is contiguous to or within the limits of work covered by this Agreement, the respective rights of the various interests involved shall be established by the Project Manager to secure the completion of the various portions of the Work in general harmony.

ARTICLE 16 – LIQUIDATED DAMAGES

- 16.1 Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the City the sum of **One thousand Dollars (\$1,000.00)** for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay is caused by the Contractor. Should an act of God or the acts or omissions of the City, its agents or representatives, in derogation to the terms of this Agreement cause the delay, the Contractor shall not be responsible for the delay nor liquidated damages. Liquidated damages are fixed and agreed upon between the Parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by the City as a consequence of such delay and both Parties desiring to obviate any question of dispute concerning the amount of damages and the cost and effect of the failure of the Contractor to complete the Work on time. Liquidated damages shall apply separately to each portion of the Work for which a time of completion is given. The City shall have the right to deduct from or retain any compensation which may be due or which may become due and payable to the Contractor the amount of liquidated damages, and if the amount retained by the City is insufficient to pay in full such liquidated damages, the Contractor shall pay all liquidated damages in full. The Contractor shall be responsible for reimbursing the City, in addition to liquidated damages or other damages for delay, for all costs of engineering, architectural fees, and inspection and other costs incurred in administering the construction of the Project beyond the completion date specified or beyond an approved extension of time granted to the Contractor whichever is later. Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the Contractor shall not give rise to a claim by Contractor for damages for increase in material and/or labor costs. Such entities, contractors and subcontractors include, but are not limited to, the City's contractors and subcontractors, Florida Power and Light Company, AT&T, and Florida East Coast Railway, LLC.
- 16.2 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any reason, allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the City, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby

waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the City and the Contractor.

ARTICLE 17 – SUSPENSION OF WORK AND TERMINATION

- 17.1 City May Suspend Work: The City may, at any time and without cause, suspend the Work or any portion of the Work for a period of not more than ninety (90) days by notice in writing to the Contractor which shall fix the date on which Work shall be resumed. The Contractor shall resume the Work on the date fixed. The Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension, if the Contractor makes a claim as provided in Articles 14 and 15.
- 17.2 City's Right to Terminate Contract: The City may terminate this Agreement upon fifteen (15) calendar days' written notice upon the occurrence of any one or more of the following events:
- 17.2.1 If the Contractor makes a general assignment for the benefit of creditors.
 - 17.2.2 If a trustee, receiver, custodian or agent of the Contractor is appointed under applicable law or under Contract, whose appointment or authority to take charge of property of the Contractor is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of the Contractor's creditors.
 - 17.2.3 If Contractor fails to begin the Work within fifteen (15) calendar days after the Project Initiation Date, or fails to perform the Work with sufficient workers and equipment or with sufficient materials to ensure the prompt completion of the Work, or shall perform the Work unsuitably, or cause it to be rejected as defective and unsuitable, or shall discontinue the prosecution of the Work pursuant to the accepted schedule or if Contractor shall fail to perform any material term set forth in the Contract Documents, or from any other cause whatsoever shall not carry on the Work in an acceptable manner, Project Manager may give notice in writing to Contractor and its Surety of such delay, neglect or default, specifying the same.
 - 17.2.4 If the Contractor repeatedly fails to make prompt payments to subcontractors or for labor, material or equipment.
 - 17.2.5 If the Contractor repeatedly disregards proper safety procedures.
 - 17.2.6 If the Contractor disregards any local, state or federal laws or regulations.
 - 17.2.7 If the Contractor otherwise violates any provisions of this Agreement.

17.3 If Contractor, within a period of ten (10) calendar days after such notice, shall not proceed in accordance therewith, the City may exclude the Contractor from the Work site and take the prosecution of the Work out of the hands of the Contractor, and take possession of the Work and all of the Contractor's tools, appliances, construction equipment and machinery at the site and use them without liability to the City for trespass or conversion, incorporate in the Work all materials and equipment stored at the site or for which the City has paid the Contractor but which are stored elsewhere, and finish the Work as the City may deem expedient. In this instance, the Contractor shall not be entitled to receive any further compensation until the Work is finished.

17.3.1 If after notice of termination of Contractor's right to proceed, it is determined for any reason that Contractor was not in default, the rights and obligations of City and Contractor shall be the same as if the notice of termination had been issued pursuant to the Termination for Convenience clause as set forth in Section 17.5 below.

17.3.2 Upon receipt of Notice of Termination pursuant to Sections 17.2 or 17.5, Contractor shall promptly discontinue all affected work unless the Notice of Termination directs otherwise and deliver or otherwise make available to City all data, drawings, specifications, reports, estimates, summaries and such other information as may have been required by the Contract Documents whether completed or in process.

17.4 If the Contractor commits a default due to its insolvency or bankruptcy, the following shall apply:

17.4.1 Should this Agreement be entered into and fully executed by the Parties, funds released and the Contractor (Debtor) files for bankruptcy, the following shall occur:

17.4.1.1 In the event the Contractor files a voluntary petition under 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303, the Contractor shall acknowledge the extent, validity, and priority of the lien recorded in favor of the City. The Contractor further agrees that in the event of this default, the City shall, at its option, be entitled to seek relief from the automatic stay pursuant to 11 U.S.C. 362. The City shall be entitled to relief from the automatic stay pursuant to 11 U.S.C. 362(d) (1) or (d) (2), and the Contractor agrees to waive the notice provisions in effect pursuant to 11 U.S.C. 362 and any applicable Local Rules of the United States Bankruptcy Court. The Contractor acknowledges that such waiver is done knowingly and voluntarily.

17.4.1.2 Alternatively, in the event the City does not seek stay relief, or if stay relief is denied, the City shall be entitled to monthly adequate protection payments within the meaning of 11 U.S.C. 361. The monthly adequate protection payments shall each be in an amount determined in accordance with the Note and Mortgage executed by the Contractor in favor of the City.

17.4.1.3 In the event the Contractor files for bankruptcy under Chapter 13 of Title 11, United States Code in addition to the foregoing provisions,

the Contractor agrees to cure any amounts in arrears over a period not to exceed twenty-four (24) months from the date of the confirmation order, and such payments shall be made in addition to the regular monthly payments required by the Note and mortgage. Additionally, the Contractor shall agree that the City is over secured and, therefore, entitled to interest and attorney's fees pursuant to 11 U.S.C. 506(b). Such fees shall be allowed and payable as an administrative expense. Further, in the event the Contractor has less than five (5) years of payments remaining on the Note, the Contractor agrees that the treatment afforded to the claim of the City under any confirmed plan of reorganization shall provide that the remaining payments shall be satisfied in accordance with the Note, and that the remaining payments or claim shall not be extended or amortized over a longer period than the time remaining under the Note.

17.4.2 Should this Agreement be entered into and fully executed by the parties, and the funds have not been forwarded to Contractor, the following shall occur:

17.4.2.1 In the event the Contractor files a voluntary petition pursuant to 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303., the Contractor acknowledges that the commencement of a bankruptcy proceeding constitutes an event of default under the terms of this Agreement. Further, the Contractor acknowledges that this Agreement constitutes an executory contract within the meaning of 11 U.S.C. 365. The Contractor acknowledges that this Agreement is not capable of being assumed pursuant to 11 U.S.C. 365(c)(2), unless City expressly consents in writing to the assumption. In the event the City consents to the assumption, the Contractor agrees to file a motion to assume this Agreement within ten (10) days after receipt of written consent from the City, regardless of whether the bankruptcy proceeding is pending under Chapter 7, 11, or 13 of Title 11 of the United States Code. The Contractor further acknowledges that this Agreement is not capable of being assigned pursuant to 11 U.S.C. 365(b)(1).

17.5 Termination for Convenience: This Agreement may be terminated for convenience in writing by City upon thirty (30) days written notice to Contractor (delivered by certified mail, return receipt requested) of intent to terminate and the date on which such termination becomes effective. In such case, Contractor shall be paid for all work executed and expenses incurred prior to termination in addition to termination settlement costs reasonably incurred by Contractor relating to commitments which had become firm prior to the termination. Payment shall include reasonable profit for work/services satisfactorily performed. No payment shall be made for profit for work/services which have not been performed.

17.6 Where the Contractor's service has been so terminated by the City, the termination shall not affect any rights of the City against the Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due the Contractor by the City will not release the Contractor from liability.

- 17.7 The Contractor has no right, authority or ability to terminate the Work except for the wrongful withholding of any payments due the Contractor from the City.

ARTICLE 18 – DISPUTE RESOLUTION

- 18.1 Resolution of Disputes: Questions, claims, difficulties and disputes of whatever nature which may arise relative to the technical interpretation of the Contract Documents and fulfillment of this Agreement as to the character, quality, amount and value of any work done and materials furnished, or proposed to be done or furnished under or, by reason of, the Contract Documents which cannot be resolved by mutual agreement of Contract Administrator and Contractor shall be submitted to the Consultant for resolution. When either Party has determined that a disputed question, claim, difficulty or dispute is at an impasse, that party shall notify the other party in writing and submit the question, claim, difficulty or dispute to the Consultant for resolution. The Parties may agree to a proposed resolution at any time without the involvement and determination of the consultant.
- 18.1.1 Consultant shall notify Contract Administrator and Contractor in writing of Consultant's decision within twenty-one (21) calendar days from the date of the submission of the question, claim, difficulty or dispute, unless Consultant requires time to gather information or allow the parties to provide additional information.
- 18.1.2 In the event the determination of a dispute by the Consultant under this Article is unacceptable to any of the Parties hereto, the Party objecting to the determination must notify the other Party and the City Manager, in writing within ten (10) days after receipt of the determination. The notice must state the basis of the objection and the proposed resolution. Final resolution of such dispute shall be made by the City Manager. The City Manager's decision shall be final and binding on the Parties.
- 18.1.3 All non-technical administrative disputes (such as billing and payment) shall be determined by Contract Administrator.
- 18.1.4 During the pendency of any dispute and after a determination thereof, Contractor and Contract Administrator shall act in good faith to mitigate any potential damages including utilization of construction schedule changes and alternate means of construction. During the pendency of any dispute arising under this Agreement, other than termination herein, Contractor shall carry on the Work and adhere to the progress schedule. The Work shall not be delayed or postponed pending resolution of any disputes or disagreements.
- 18.1.5 For any disputes which remain unsolved, within sixty (60) calendar days after Final Completion of the Work, the Parties shall participate in mediation to address all unresolved disputes. A mediator shall be mutually agreed upon by the Parties. Should any objection not be resolved in mediation, the Parties retain all their legal rights and remedies under applicable law. If a Party objecting to a determination, fails to comply in strict accordance with the requirements of this Article, said Party specifically waives all of its rights provided hereunder, including its rights and remedies under applicable law.

ARTICLE 19 – NOTICES

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

To the City:

City Manager
City of Fort Lauderdale
100 North Andrews Avenue
Fort Lauderdale, Florida 33301-1016

with copy to the:

Project Manager and City Attorney
City of Fort Lauderdale
100 North Andrews Avenue
Fort Lauderdale, Florida 33301-1016

To the Contractor:

ARTICLE 20 – LIMITATION OF LIABILITY

- 20.1 The City desires to enter into this Agreement only if in so doing the City can place a limit on the City's liability for any cause of action arising out of this Agreement, so that the City's liability for any breach never exceeds the sum of \$1,000. For other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Contractor expresses its willingness to enter into this Agreement with the knowledge that the Contractor's recovery from the City to any action or claim arising from the Agreement is limited to a maximum amount of \$1,000, which amount shall be reduced by the amount actually paid by the City to the Contractor pursuant to this Agreement, for any action or claim arising out of this Agreement. Nothing contained in this paragraph or elsewhere in this Agreement is in any way intended either to be a waiver of the limitation placed upon the City's liability as set forth in Section 768.28, Florida Statutes, (2020) as may be amended or revised, or to extend the City's liability beyond the limits established in said Section 768.28 (2020), as may be amended or revised; and no claim or award against the City shall include attorney's fees, investigative costs, expert fees, suit costs or pre-judgment interest.

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

ARTICLE 21 – GOVERNING LAW; WAIVER OF JURY TRIAL

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

ARTICLE 22 – MISCELLANEOUS

- 22.1 The duties and obligations imposed by this Agreement and the rights and remedies available to the Parties and, in particular but without limitation, the warranties, guaranties and obligations imposed upon the Contractor and all of the rights and remedies available to the City, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents, and the provisions of this Paragraph will survive final payment and termination or completion of this Agreement.
- 22.2 The Contractor shall not assign or transfer this Agreement or its rights, title or interests. The obligations undertaken by the Contractor pursuant to this Agreement shall not be delegated or assigned to any other person or firm. Violation of the terms of this Paragraph shall constitute a material breach of Agreement by the Contractor and the City any, at its discretion, cancel this Agreement and all rights, title and interest of the Contractor which shall immediately cease and terminate.
- 22.3 The Contractor and its employees, volunteers and agents shall be and remain an independent contractor and not agents or employees of the City with respect to all of the acts and services performed by and under the terms of this Agreement. This Agreement shall not in any way be constructed to create a partnership, association or any other kind of joint undertaking or venture between the Parties.

- 22.4 The City reserves the right to audit the records of the Contractor relating in any way to the Work to be performed pursuant to this Agreement at any time during the performance and term of this Agreement and for a period of three (3) years after completion and acceptance by the City. If required by the City, the Contractor agrees to submit to an audit by an independent certified public accountant selected by the City. The Contractor shall allow the City to inspect, examine and review the records of the Contractor at any and all times during normal business hours during the term of this Agreement.
- 22.5 The remedies expressly provided in this Agreement to the City shall not be deemed to be exclusive but shall be cumulative and in addition to all other remedies in favor of the City now or later existing at law or in equity.
- 22.6 Should any part, term or provisions of this Agreement be decided by the courts to be invalid, illegal or in conflict with any state or federal law, the validity of the remaining portion or provision shall not be affected.
- 22.7 Scrutinized Companies

The Contractor certifies that it is not on the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2021), 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 (2021), as may be amended or revised, or been placed on the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2021), as may be amended or revised, or is engaged in a boycott of Israel.

- 22.8 Public Entity Crimes: In accordance with the Public Crimes Act, Section 287.133, Florida Statutes (2020), as may be amended or revised, 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 (2020), as may be amended or revised, for category two purchases for a period of thirty-six (36) months from the date of being placed on the convicted vendor list. Violation of this section by Contractor shall result in cancellation of the City purchase and may result in Contractor debarment.
- 22.9 Attorney Fees: If City or Contractor incurs any expense in enforcing the terms of this Agreement through litigation, the prevailing Party in that litigation shall be reimbursed for all such costs and expenses, including but not limited to court costs, and reasonable attorney fees incurred during litigation.

22.10 Public Records

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT PRRCONTRACT@FORTLAUDERDALE.GOV, 954-828-5002, CITY CLERK'S OFFICE, 100 N. ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA 33301-1016.

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 (2020), 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 Agreement if the Contractor does not transfer the records to the City.
4. Upon completion of the Agreement, 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 Agreement, 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 Agreement, 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.

Project Name
(Contractor)
Project #

CITY

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

CITY OF FORT LAUDERDALE, a Florida municipal corporation

By: _____
CHRISTOPHER J LAGERBLOOM
City Manager

Date: _____

ATTEST:

By: _____
JEFFREY A. MODARELLI
City Clerk

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

By: _____
RHONDA MONTOYA HASAN
Assistant City Attorney

CONTRACTOR

WITNESSES:

CONTRACTOR.,
a Florida company/corporation.

By: _____

Print Name: _____

Print Name

Title: _____

ATTEST:

Print Name

By: _____

Secretary

(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 OF AUTHORIZED OFFICER) as _____, (TITLE OF AUTHORIZED OFFICER) for _____ (NAME OF COMPANY), a Florida _____ (TYPE OF COMPANY).

(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: _____



**CITY OF FORT LAUDERDALE
SECURED PLAN REQUEST FORM
For Architects, Engineers and Contractors or Governmental Agencies**

Building Plans Custodian Obligations

Building Plans Custodian

1. Building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, **which depict the internal layout and structural elements of a building, arena, stadium, water treatment facility or other structure owned or operated by the City of Fort Lauderdale** (City) are exempt from the Public Records law pursuant to FL Statute, Chapter 119.07(1) and s.24(a), Art. 1 of the State Constitution.
2. Anyone possessing such exempt records is a **PLANS CUSTODIAN**

Obtaining Building Plans

Those records defined in the Statute as exempt may be obtained from the City only by licensed Architects, Engineers or Contractors, as well as Governmental Agencies who are performing work on or related to a building or structure owned or operated by the City.

Reproduction and Redistribution

The entities or persons who receive exempt documents from the City shall maintain the exempt status of the information.

Plans Custodians

The Plans Custodian shall provide safeguards to protect the content of the records from unauthorized use or alteration and to maintain the exempt status of those records.

Penalty and Fine Related to Violating Public Records Law

Willfully and knowingly violating Public Records law is a **first degree misdemeanor**, punishable by penalties of up to one year in prison, a fine of up to **\$1,000, or both**.

Documents Requested

Building/Structure: _____

Location: _____
(City)

Solicitation Number: _____

☐ View Only ☐ Copies will be made

Documents: ☐ (Please complete page 2)

Requester Information

Name: _____

Title: _____

Project Name: _____

Company Name: _____

Address: _____

License Held: _____

License Number: _____

Phone: _____

E-mail: _____

Signature: _____

Date: _____

As the authorized licensed Architect, Engineer, Contractor or Government Agency representative, I acknowledge the acceptance of the City of Fort Lauderdale Records listed herein. As the plan's custodian of these Records, I agree to the conditions and limitations outlined above. I understand that any unauthorized access or reproduction may be subject to criminal sanctions.

City of Fort Lauderdale
Public Works Engineering Division
100 N Andrews Avenue
Fort Lauderdale, Florida 33301
Fax: (954) 828-5074
Email: SecureBidDocs@fortlauderdale.gov

A copy of the Professional License* must be provided by Architects, Engineers and Contractors before authorization is given to download secured solicitations. Send a copy of the license and this completed form via email or fax (see above contact information).

**License is not required for Governmental Agencies.*

- Unawarded firm(s) shall return all documents to the City.



**Sub-Contractor/Sub-Consultant Receiving
Reproduction & Redistribution of Exempt
Information**

Name: _____
Title: _____
Project Name: _____
Company Name: _____
Address: _____
License Held: _____
License Number: _____
Phone: _____
E-mail: _____
Date: _____

Name: _____
Title: _____
Project Name: _____
Company Name: _____
Address: _____
License Held: _____
License Number: _____
Phone: _____
E-mail: _____
Date: _____

Name: _____
Title: _____
Project Name: _____
Company Name: _____
Address: _____
License Held: _____
License Number: _____
Phone: _____
E-mail: _____
Date: _____

Name: _____
Title: _____
Project Name: _____
Company Name: _____
Address: _____
License Held: _____
License Number: _____
Phone: _____
E-mail: _____
Date: _____

Name: _____
Title: _____
Project Name: _____
Company Name: _____
Address: _____
License Held: _____
License Number: _____
Phone: _____
E-mail: _____
Date: _____

Name: _____
Title: _____
Project Name: _____
Company Name: _____
Address: _____
License Held: _____
License Number: _____
Phone: _____
E-mail: _____
Date: _____

NON-COLLUSION STATEMENT:

By signing this offer, the vendor/contractor certifies that this offer is made independently and *free* from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any City of Fort Lauderdale, FL officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more).

3.4. Immediate family members (spouse, parents and children) are also prohibited from contracting with the City subject to the same general rules.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

NAME**RELATIONSHIPS**

In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

Authorized Signature

Title

Name (Printed)

Date

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT

MINORITY BUSINESS ENTERPRISE (MBE) - WOMEN BUSINESS ENTERPRISE (WBE)

PRIME CONTRACTOR IDENTIFICATION FORM

In order to assist us in identifying the status of those companies doing business with the City of Fort Lauderdale, this form must be completed and returned with your bid package.

Name of Firm:	<input type="text"/>
Address of Firm:	<input type="text"/>
Telephone Number:	<input type="text"/>
Name of Person Completing Form:	<input type="text"/>
Title:	<input type="text"/>
Signature:	<input type="text"/>
Date:	<input type="text"/>
City Project Number:	<input type="text"/>
City Project Description:	<input type="text"/>

Please check the item(s) which properly identify the status of your firm:

- ☐ Our firm is not a MBE or WBE.
- ☐ Our firm is a MBE, as at least 51 percent is owned and operated by one or more socially and economically disadvantaged individuals.
- ☐ American Indian ☐ Asian ☐ Black ☐ Hispanic
- ☐ Our firm is a WBE, as at least 51 percent is owned and operated by one or more women.
- ☐ American Indian ☐ Asian ☐ Black ☐ Hispanic

MBE/WBE CONTRACTOR INFORMATION

The City, in a continuing effort, is encouraging the increased participation of minority and women-owned businesses in Public Works Department related contracts. Along those lines, we are requiring that each firm provide documentation detailing their own programs for utilizing minority and women-owned businesses.

Submit this information as a part of this bid package and refer to the checklist, to ensure that all areas of concern are covered. The low responsive bidder may be contacted to schedule a meeting to discuss these objectives. It is our intention to proceed as quickly as possible with this project, so your cooperation in this matter is appreciated.

CONTRACTOR CHECKLIST

- ☐ List Previous City of Fort Lauderdale Contracts

- ☐ Number of Employees in your firm

--Percent (%) Women

--Percent (%) Minorities

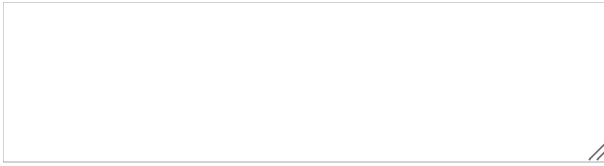
--Job Classifications of Women and Minorities

- ☐ Use of minority and/or women subcontractors on past projects.

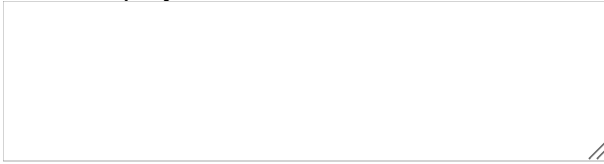
- ☐ Nature of the work subcontracted to minority and/or women-owned firms.

- ☐ How are subcontractors notified of available opportunities with your firm?

☐ Anticipated amount to be subcontracted on this project.

A large, empty rectangular box with a thin black border, intended for the user to input the anticipated amount to be subcontracted on this project. A small diagonal line is visible in the bottom right corner of the box.

☐ Anticipated amount to be subcontracted to minority and/or women-owned businesses on this project.

A large, empty rectangular box with a thin black border, intended for the user to input the anticipated amount to be subcontracted to minority and/or women-owned businesses on this project. A small diagonal line is visible in the bottom right corner of the box.

QUESTIONNAIRE SHEET

PLEASE PRINT OR TYPE:

Firm Name: President

Business Address:

Telephone:

Fax:

E-Mail Address:

What was the last project of this nature which you completed? Include the year, description, and contract value.

The following are named as three corporations and representatives of those corporations for which you have performed work similar to that required by this contract, and which the City may contact as your references (include addresses, telephone numbers and e-mail addresses). Include the project name, year, description, and contract value.

<input type="text"/>
<input type="text"/>
<input type="text"/>

How many years has your organization been in business?

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

The name of the qualifying agent for the firm and his position is: Certificate of Competency Number of Qualifying Agent: Effective Date: Expiration Date: Licensed in: Engineering Contractor's License #

(County/State)

Expiration Date:

NOTE: To be considered for award of this contract, the bidder must submit a financial statement upon request.

NOTE: Contractor must have proper licensing and shall provide copy of same with his proposal.

QUESTIONNAIRE SHEET

1. Have you personally inspected the proposed work and have you a complete plan for its performance?

2. Will you sublet any part of this work? If so, list the portions or specialties of the work that you will.

a)

b)

c)

d)

e)

f)

g)

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

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

5. What equipment will you rent for the proposed work?

**CONTRACTOR'S CERTIFICATE OF COMPLIANCE WITH
NON-DISCRIMINATION PROVISIONS OF THE CONTRACT**

The completed and signed form should be returned with the Contractor's submittal. If not provided with submittal, the Contractor must submit within three business days of City's request. Contractor may be deemed non-responsive for failure to fully comply within stated timeframes.

Pursuant to City Ordinance Sec. 2-187(c), bidders must certify compliance with the Non-Discrimination provision of the ordinance.

The Contractor shall not, in any of his/her/its activities, including employment, discriminate against any individual on the basis of race, color, national origin, religion, creed, sex, disability, sexual orientation, gender, gender identity, gender expression, or marital status.

1. The Contractor certifies and represents that he/she/it will comply with Section 2-187, Code of Ordinances of the City of Fort Lauderdale, Florida, as amended by Ordinance C-18-33 (collectively, "Section 2-187").
2. The failure of the Contractor to comply with Section 2-187 shall be deemed to be a material breach of this Agreement, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.
3. The City may terminate this Agreement if the Contractor fails to comply with Section 2-187.
4. The City may retain all monies due or to become due until the Contractor complies with Section 2-187.
5. The Contractor may be subject to debarment or suspension proceedings. Such proceedings will be consistent with the procedures in section 2-183 of the Code of Ordinances of the City of Fort Lauderdale, Florida.

Authorized Signature

Print Name and Title

Date

BID/PROPOSAL CERTIFICATION

Please Note: It is the sole responsibility of the bidder to ensure that his bid is submitted electronically through www.BidSync.com prior to the bid opening date and time listed. Paper bid submittals will not be accepted. All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit <http://www.dos.state.fl.us/>).

Company: (Legal Registration) EIN (Optional):

Address:

City: State: Zip:

Telephone No.: FAX No.: Email:

Delivery: Calendar days after receipt of Purchase Order (**section 1.02 of General Conditions**):

Total Bid Discount (**section 1.05 of General Conditions**):

Check box if your firm qualifies for MBE / SBE / WBE (**section 1.09 of General Conditions**): ☐

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and are included in the proposal:

<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

VARIANCES: If you take exception or have variances to any term, condition, specification, scope of service, or requirement in this competitive solicitation you must specify such exception or variance in the space provided below or reference in the space provided below all variances contained on other pages within your response. Additional pages may be attached if necessary. No exceptions or variances will be deemed to be part of the response submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **You must also click the "Take Exception" button.**

The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal.

I have read all attachments including the specifications and fully understand what is required. By submitting this signed proposal, I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this bid/proposal. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, that in no event shall the City's liability for respondent's direct, indirect, incidental, consequential, special or exemplary damages,

expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars (\$500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Name (printed)

Signature

Date

Title

Revised 4/28/2020



DISADVANTAGED BUSINESS ENTERPRISE (DBE) PREFERENCE

Section 2-185, Code of Ordinances of the City of Fort Lauderdale, provides for a disadvantaged business enterprise preference.

In order to be considered for a DBE Preference, a bidder must include a certification from a government agency, as applicable to the DBE Preference class claimed **at the time of bid submittal**.

Upon formal request of the City, based on the application of a DBE Preference the Bidder shall, within **ten (10)** calendar days, submit the following documentation to the DBE Class claimed:

- a) Copy of City of Fort Lauderdale current year business tax receipt, **or** Broward County current year business tax receipt, **or** State of Florida active registration **and/or**
- b) List of the names of all employees of the bidder and evidence of employees' residences within the geographic bounds of the City of Fort Lauderdale or Broward County, as the case may be, such as current Florida driver license, residential utility bill (water, electric, telephone, cable television), or other type of similar documentation acceptable to the City.

Failure to comply at time of bid submittal shall result in the bidder being found ineligible for the disadvantaged business enterprise preference.

THE COMPLETE DBE PREFERENCE ORDINANCE MAY BE FOUND ON THE CITY'S WEB SITE AT THE FOLLOWING LINK: https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2AD_ARTVFI_DIV2PR_S2-185EQOPDIBUEN&showChanges=true

Definitions

- a. The term "disadvantaged class 1 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the City, and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.
- b. The term "disadvantaged class 2 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business within the limits of the City with full-time employees and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.
- c. The term "disadvantaged class 3 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the Tri-County area and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.
- d. The term "disadvantaged class 4 enterprise" shall mean any disadvantaged business enterprise that does not qualify as a Class 1, Class 2, or Class 3 business, but is located in the State of Florida and provides supporting documentation of its disadvantaged certification as established in the City's Procurement Manual.

DISADVANTAGED BUSINESS ENTERPRISE CERTIFICATION STATEMENT

The Business identified below certifies that it qualifies for the disadvantaged business enterprise preference classification as indicated herein, and further certifies and agrees that it will re-affirm its preference classification annually no later than **thirty (30)** calendar days prior to the anniversary of the date of a contract awarded pursuant to this solicitation. Violation of the foregoing provision may result in contract termination.

(1)

(Business Name)

is a disadvantaged **Class 1** enterprise as defined in the City of Fort Lauderdale Ordinance Section 2-185 disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the City, and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.

(2)

(Business Name)

is a disadvantaged **Class 2** enterprise as defined in the City of Fort Lauderdale Ordinance Section 2-185 disadvantaged business enterprise that has established and agrees to maintain a permanent place of business within the limits of the City with full-time employee(s) and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.

(3)

(Business Name)

is a disadvantaged **Class 3** enterprise as defined in the City of Fort Lauderdale Ordinance Section 2-185 disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the Tri-County area and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.

(4)

(Business Name)

is a disadvantaged **Class 4** enterprise as defined in the City of Fort Lauderdale Ordinance Section 2-185 disadvantaged business enterprise that does not qualify as a Class 1, Class 2, or Class 3 business, but is located in the State of Florida and provides supporting documentation of its disadvantaged certification as established in the City's Procurement Manual.

(5)

(Business Name)

requests a **Conditional Class 1** classification as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. Written certification of intent to meet the requirements shall be provided to the City within three (3) months of entering into a contract with the City.

(6)

(Business Name)

requests a **Conditional Class 2** classification as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. Written certification of intent to meet the requirements shall be provided to the City within three (3) months of entering into a contract with the City.

BIDDER'S COMPANY:

AUTHORIZED
COMPANY
PERSON:

PRINT NAME

SIGNATURE

DATE

Forms Non-Iso – revised 7/2/2021

Bidder shall submit a list of minimum three projects completed in the last five years of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address

Note: Do not include proposed team members or parent/subsidiary companies as references in your submittals.

A. PRIME BIDDER'S NAME: _____

CLIENT NO.1 - Name of firm to be contacted: _____

Address: _____

Contact Person: _____

Phone No: (____) _____

Contact E-Mail Address: _____

Project Performance Period: _____ to _____
Dates should be in mm/yy format

Project Name : _____

Location of Project: _____

Overall Construction Cost: _____

Description of the overall scope: _____

Description of work that was self-performed by Bidder:

CLIENT NO.2 - Name of firm to be contacted: _____

Address: _____

Contact Person: _____

Phone No: (____) _____

Contact E-Mail Address: _____

Project Performance Period: _____ to _____
Dates should be in mm/yy format

Project Name : _____

Location of Project: _____

Overall Construction Cost: _____

Description of the overall scope: _____

Description of work that was self-performed by Bidder:

CLIENT NO.3 - Name of firm to be contacted: _____

Address: _____

Contact Person: _____

Phone No: (____) _____

Contact E-Mail Address: _____

Project Performance Period: _____ to _____
Dates should be in mm/yy format

Project Name : _____

Location of Project: _____

Overall Construction Cost: _____

Description of the overall scope: _____

Description of work that was self-performed by Bidder:

TRENCH SAFETY

Bidder acknowledges that included in the appropriate bid items of his bid and in the Total Bid Price are costs for complying with the Florida Trench Safety Act, Florida Statutes 553.60 – 553.64. The bidder further identifies the costs of such compliance to be summarized below:

Trench Safety Measure (Description)	Units of Measure (LF/SF)	Unit (Quantity)	Unit Cost	Extended Cost
A. <input type="text"/>	<input type="text"/>	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
B. <input type="text"/>	<input type="text"/>	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
C. <input type="text"/>	<input type="text"/>	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
D. <input type="text"/>	<input type="text"/>	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

Total: \$

The bidder certifies that all trench excavation done within his control in excess of five feet (5') in depth shall be in accordance with the Occupational Safety and Health Administration's excavation safety standards, C.F.R. s. 1926.650 Subpart P., and the Florida Trench Safety Act, Florida Statutes 553.60-553.64.

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

DATE:

(SIGNATURE)

STATE OF: COUNTY OF:

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

(Name of Individual Signing)

who, after first being duly sworn by me,

affixed his/her signature in the space provided above on this

day of , 20 .

NOTARY PUBLIC

My Commission Expires:

CONTRACT PAYMENT METHOD

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) program which changes how payments are remitted to its vendors. The City has transitioned from traditional paper checks to credit card payments via MasterCard or Visa as part of this program.

This allows you as a vendor of the City of Fort Lauderdale to receive your payments fast and safely. No more waiting for checks to be printed and mailed.

In accordance with the contract, payments on this contract will be made utilizing the City's P-Card (MasterCard or Visa). Accordingly, bidders must presently have the ability to accept these credit cards or take whatever steps necessary to implement acceptance of a card before the start of the contract term, or contract award by the City.

All costs associated with the Contractor's participation in this purchasing program shall be borne by the Contractor. The City reserves the right to revise this program as necessary.

By signing below you agree with these terms.

Please indicate which credit card payment you prefer:

☐ MasterCard

☐ Visa

Company Name

Name (Printed)

Signature

Date

Title

E-VERIFY AFFIRMATION STATEMENTRFP/Bid /Contract No: Project Description:

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of,

- (a) all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,
- (b) all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

Contractor/Proposer/ Bidder Company Name: Authorized Company Person's Signature: Authorized Company Person's Title: Date:

9/15/2020

CONSTRUCTION BID CERTIFICATION

Please Note: It is the sole responsibility of the bidder to ensure that his bid is submitted electronically through www.BidSync.com prior to the bid opening date and time listed. Paper bid submittals will not be accepted. All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the Department of State, in accordance with Florida Statute §607.1501 (visit <http://www.dos.state.fl.us/>).

Company: (Legal Registration)

Address:

City: State: Zip:

Telephone No.: FAX No.: Email:

Check box if your firm qualifies for MBE / SBE / WBE: ☐

If a corporation, state the name of the President, Secretary and Resident Agent. If a partnership, state the names of all partners. If a trade name, state the names of the individuals who do business under the trade name.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Title	Name	Title
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Title	Name	Title

ADDENDUM ACKNOWLEDGEMENT - Bidder acknowledges that the following addenda have been received and are included in the proposal:

<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

VARIANCES: If you take exception or have variances to any term, condition, specification, or requirement in this bid you must specify such variance in the space provided below or reference in the space provided below all variances contained on other pages within your bid. Additional pages may be attached if necessary. No variances will be deemed to be part of the bid submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **You must also click the "Take Exception" button.**

The below signatory affirms that he has or will obtain all required permits and licenses from the appropriate agencies, and that his firm is authorized to do business in the State of Florida. The below signatory agrees to furnish all labor, tools, material, equipment and supplies, and to sustain all the expense incurred in doing the work set forth in strict accordance with the bid plans and contract documents at the unit prices indicated if awarded a contract. The below signatory has not divulged to, discussed, or compared this bid with other bidders, and has not colluded with any other bidder or parties to this bid whatsoever. Furthermore, the undersigned guarantees the truth and accuracy of all statements and answers contained in this bid. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a bid, that in no event shall the City's liability for bidder's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars (\$500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Name (printed)

Signature

Date

Title

Revised 4/28/2020

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 01010
SUMMARY OF WORK****PART 1 -- GENERAL****1.01 THE REQUIREMENT**

- A. The work to be performed under this Contract shall consist of furnishing and installation of all tools, equipment, materials, supplies, manufactured articles, transportation and services, including fuel, power, water, and essential communications, for the performance of all labor, work, and/or other operations as required for the fulfillment of the Contract in strict accordance with the Contract Documents. The work shall be complete, and all work, materials, and services not expressly shown or called for in the Contract Documents which may be necessary for the complete and proper construction of the work shall be performed, furnished, and installed by the CONTRACTOR as though originally so specified or shown, at no increase in cost to the CITY.
- B. Wherever the Contract Documents address a third party, i.e., subcontractor, manufacturer, etc., it is to be considered as the CONTRACTOR through the third party.
- C. Wherever a reference to number of days is noted, it shall be construed to mean calendar days.
- D. The CONTRACTOR is advised that the work is to be performed in a fully operational water treatment facility, which is the principal source of potable water supply for the City of Fort Lauderdale and associated communities. Work activities will be around instrumentation systems that control equipment active in the treatment process. The CONTRACTOR shall be fully responsible for all precautionary measures together with all remediation, cleanup, disinfection, regulatory agency fines and all other labor, materials, and costs associated with any contamination of the potable water supply or interruption of water treatment caused directly or indirectly by the activities of the CONTRACTOR in the performance of the work.
- E. Notwithstanding other indemnification requirements of the Contract Documents, the CONTRACTOR shall also indemnify, defend, and hold harmless the CITY and the CITY's agents from any and all legal action which may arise from contamination of the potable water supply or interruption of water treatment caused directly or indirectly by the CONTRACTOR in the performance of the work.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. This project includes the complete removal and replacement of existing Media and Underdrain Inspection for Filters 1, 2, 3, 4, 6, 9, 14, 15, 17, 18, 19, 20, 21, & 22, at the Fiveash Water Treatment Plant. This project includes procurement, removal, disposal, construction, testing, and placing into service the equipment and materials shown on the Drawings and Specifications. This project includes the following project elements for each filter covered by these Contract Documents:
 - 1. Remove and dispose of the existing filter media in all Filters identified in the scope of work. The existing Media has calcified and is very difficult to break-up and remove. Manufacturer to inspect underdrains, identify any repairs required and/or recommend replacement if underdrain is beyond repair.
 - 2. Inspect influent valves, clean, repair. If influent valves are beyond repair replace as required.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

3. Furnish, install, and test new filter media and gravel in all Filters identified in the scope of work. Gravel, sand, and anthracite, to be installed per contract documents. Top of anthracite shall be 2" below existing agitator bar to allow for free operation of agitator bar.

- B. The work is located at the following locations:

FIVEASH WATER TREATMENT PLANT
4321 NW 9th Ave.
Fort Lauderdale, Florida 33309

- C. Municipal Jurisdiction(s):

1. The work at the Fiveash Water Treatment Plant is within the jurisdiction of the City of Fort Lauderdale.

1.03 WORK BY OTHERS

- A. The CONTRACTOR's attention is directed to the fact that other contractors may conduct other work at the site(s) during the performance of the work under this Contract. The CONTRACTOR shall conduct its operations to cause a minimum of interference with the work of such other contractors and shall cooperate fully with such contractors to provide continued safe access to their respective portions of the site, as required to perform their respective contracts.
- B. When two or more contracts are being executed at one time on the same or adjacent areas in such manner that work on one contract may interfere with that on another, the CITY shall determine the sequence and order of the work. When the territory of one contract is the necessary or convenient means of access for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the CITY to the CONTRACTOR so desiring, to the extent, amount, in the manner, and at the times permitted. No such decision as to the method or time of conducting the work or the use or territory shall be made the basis of any claim of delay or damage.
- C. Interference with Work on Utilities: The CONTRACTOR shall cooperate fully with all utility forces of the CITY or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the work, and shall schedule the work to minimize interference with said relocation, altering, or other rearranging of facilities.

1.05 CONTRACTOR USE OF PROJECT SITE

- A. The CONTRACTOR's use of the project site shall be limited to its construction operations, including on-site storage of materials, and field offices, as noted on the "Staging Plan" in the Contract Drawings.
- B. Disposal of Debris: All debris, materials, piping, and miscellaneous waste products from the work described in this section shall be removed from the project as soon as possible and not less than twice per week. They shall be disposed of in accordance with applicable federal, state, and local regulations. The CONTRACTOR is responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

SUMMARY OF WORK

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

1.06 CITY USE OF THE PROJECT SITE

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

1.07 ADDITIONAL ENGINEERING SERVICES

- A. In the event that the CITY is required to provide additional engineering services as a result of substitution of materials or equipment which are not "or equal" by the CONTRACTOR, or changes by the CONTRACTOR in dimension, weight, power requirements, etc., of the equipment and accessories furnished, or if the CITY is required to examine and evaluate any changes proposed by the CONTRACTOR for the convenience of the CONTRACTOR, then the CITY's charges in connection with such additional services shall be charged to the CONTRACTOR by the CITY.
- B. If the equipment furnished by the contractor exceeds the capacity of existing facilities, the CONTRACTOR shall assume the responsibility for all costs of redesign and for any construction changes required to accommodate the equipment furnished, including the CITY's expenses in connection therewith.
- C. If the CITY is required to provide additional engineering services as a result of CONTRACTOR's errors, omissions, or failure to conform to the requirements of the Contract Documents, or if the CITY is required to examine and evaluate any changes proposed by the CONTRACTOR solely for the convenience of the CONTRACTOR, then the CITY's charges in connection with such additional services shall be charged to the CONTRACTOR by the CITY.

1.08 ADDITIONAL CITY'S EXPENSES

- A. In the event the Work of this Contract is not completed within the time set forth in the Contract or within the time to which such completion may have been extended in accordance with the Contract Documents, the additional engineering or inspection charges incurred by the CITY may be charged to the CONTRACTOR and deducted from the monies due him in accordance with Article 16 of the contract. Extra work or supplemental Contract work added to the original Contract, as well as extenuating circumstances beyond the control of the CONTRACTOR, will be given due consideration by the CITY before assessing engineering and inspection charges against the CONTRACTOR.
- B. Unless otherwise specifically permitted, the normal time of work under this Contract is limited to 8 hours per day, Monday through Friday. Work beyond these hours will result in additional expense to the CITY. Any expenses and/or damages, including the cost of the CITY's onsite personnel, arising from the CONTRACTOR's operations beyond the hours and days specified above shall be borne by the CONTRACTOR.
- C. Charges assessed to the CONTRACTOR for additional engineering and inspection costs will be determined based on actual hours charged to the job by the CITY. Daily rates will depend on the number and classification of employees involved.
- D. Charges for additional CITY's expenses shall be in addition to any liquidated damages assessed in accordance with the Contract.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

1.09 PERMITS

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

Permit Title	Agency	Permit Application Submittal Date	Date Permit was Issued and Permit No.
Public Drinking Water Facility Construction Permit	Florida Department of Environmental Protection	Pending, at the Pre-Construction Conference	Date Issued: Permit No.: Pending.

- C. The CITY will furnish signed and sealed sets of Contract Documents to the CONTRACTOR for permit acquisition as required.
- D. The CONTRACTOR shall furnish to the CITY copies of all permits prior to commencement of work requiring permits.
- E. No payments will be made for work completed without first acquiring and furnishing two (2) copies of each permit to the CITY.

1.10 DIMENSIONS OF EXISTING FACILITIES

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

1.11 FIRE PROTECTION

- A. CONTRACTOR shall take all necessary precautions to prevent fires at or adjacent to the work, buildings, etc., and shall provide adequate facilities for extinguishing fires which do occur.
- B. When fire or explosion hazards are created in the vicinity of the work because of the locations of fuel tanks, or similar hazardous utilities or devices, the CONTRACTOR shall immediately alert the local Fire Marshal and the CITY of such tank or device. The CONTRACTOR shall exercise all safety precautions and shall comply with all instructions issued by the Fire Marshal and shall cooperate with the CITY about the tank or device to prevent the occurrence of fire or explosion.

1.12 CHEMICALS

- A. All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, or reactant of other classification, must show approval of either the EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict

SUMMARY OF WORK

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

conformance with all applicable rules and regulations. All lubricants used must meet NSF certification.

1.13 FIRST AID FACILITIES AND ACCIDENTS

- A. First Aid Facilities: The CONTRACTOR shall provide at the site such equipment and facilities as are necessary to supply first aid to any of his personnel who may be injured in connection with the work.
- B. Accidents:
 - 1. The CONTRACTOR shall promptly report, in writing, to the CITY, all accidents whatsoever out of, or in connection with, the performance of the work, whether on or adjacent to the site, which cause death, personal injury or property damage, giving full details and statements of witnesses.
 - 2. If death, serious injuries, or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the CITY and the CITY.
 - 3. If any claim is made by anyone against the CONTRACTOR or a Subcontractor on account of any accidents, the CONTRACTOR shall promptly report the facts, in writing, to the CITY and CITY, giving full details of the claim.

1.14 ULTIMATE DISPOSITION OF CLAIMS BY ONE CONTRACTOR ARISING FROM ALLEGED DAMAGE BY ANOTHER CONTRACTOR

- A. During the progress of the work, other contractors may be engaged in performing other work or may be awarded other Contracts for additional work on this project. In that event, the CONTRACTOR shall coordinate the work to be done hereunder with the work of such other contractors and the CONTRACTOR shall fully cooperate with such other contractors and carefully fit its own work to that provided under other Contracts as may be directed by the CITY. The CONTRACTOR shall not commit or permit any act which will interfere with the performance of work by any other CONTRACTOR.
- B. If the CITY shall determine that the CONTRACTOR is failing to coordinate his work with the work of the other contractors as the CITY directed, then the CITY shall have the right to withhold any payments otherwise due hereunder until the CONTRACTOR completely complies with the CITY's directions.
- C. If the CONTRACTOR notifies the CITY in writing that another CONTRACTOR is failing to coordinate his work with the work of this Contract as directed, the CITY will promptly investigate the charge. If the CITY finds it to be true, he will promptly issue such directions to the other CONTRACTOR with respect thereto as the situation may require. The CITY, the CITY, nor any of their agents shall not, however, be liable for any damages suffered by the CONTRACTOR by reason of the other contractor's failure to promptly comply with the directions so issued by the CITY, or by reason of another contractor's default in performance, it being understood that the CITY does not guarantee the responsibility or continued efficiency of any CONTRACTOR.
- D. The CONTRACTOR shall indemnify and hold the CITY harmless from any and all claims of judgments for damages and from costs and expenses to which the CITY may be subjected or which it may suffer or incur by reason of the CONTRACTOR's failure to comply with the CITY's directions promptly.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- E. Should the CONTRACTOR sustain any damage through any act or omission of any other CONTRACTOR having a Contract with the CITY for the performance of work upon the site or of work which may be necessary to be performed for the proper execution of the work to be performed hereunder, or through any act or omission of a Subcontractor of such Contract, the CONTRACTOR shall have no claim against the CITY for such damage, but shall have a right to recover such damage from the other CONTRACTOR under the provision similar to the following provisions which have been or will be inserted in the Contracts with such other contractors.
- F. Should any other CONTRACTOR having or who shall hereafter have a Contract with the CITY for the performance of work upon the site sustain any damage through any act or omission of the CONTRACTOR hereunder or through any act or omission of any Subcontractor of the CONTRACTOR, the CONTRACTOR agrees to reimburse such other CONTRACTOR for all such damages and to defend at his own expense any suit based upon such claim and if any judgment or claims against the CITY shall be allowed, the CONTRACTOR shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith and shall indemnify and hold the CITY harmless from all such claims.
- G. The CITY's right to indemnification hereunder shall in no way be diminished, waived or discharged, by its recourse to assessment of liquidated damages as provided in the Contract, or by the exercise of any other remedy provided for by Contract Documents or by law.

1.15 BLASTING AND EXPLOSIVES

- A. The use of explosives and blasting are not allowed.

1.16 WEATHER CONDITIONS

- A. No work shall be done when the weather is unsuitable. The CONTRACTOR shall take necessary precautions (in the event of impending storms) to protect all work, materials, or equipment from damage or deterioration due to floods, driving rain, or wind. The CITY reserves the right, through the opinion of the CITY, to order that additional protection measures over and beyond those proposed by the CONTRACTOR, be taken to safeguard all components of the Project. The CONTRACTOR shall not claim any compensation for such precautionary measures so ordered, nor claim any compensation from the CITY for damage to the work from weather elements.
- B. The mixing and placing of concrete or pavement courses, the preparation and sealing of exterior concrete, the installation of filter media, the laying of masonry, and installation of sewers and water mains shall be stopped during rainstorms, if ordered by the CITY; and all freshly placed work shall be protected by canvas or other suitable covering in such manner as to prevent running water from coming in contact with it. Sufficient coverings shall be provided and kept ready at hand for this purpose. The limitations and requirements for mixing and placing concrete, or laying of masonry, in cold weather shall be as described elsewhere in these Specifications.

1.17 PERIODIC CLEANUP: BASIC SITE RESTORATION

- A. During construction, the CONTRACTOR shall regularly remove from the site of the work all accumulated debris and surplus materials of any kind which result from his operations. Unused equipment and tools shall be stored at the CONTRACTOR's yard or base of operations for the Project.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- B. When the work involves installation of sewers, drains, water mains, manholes, underground structures, or other disturbance of existing features in or across streets, rights-of-way, easements, or private property, the CONTRACTOR shall (as the work progresses) promptly backfill, compact, grade, and otherwise restore the disturbed area to the basic condition which will permit resumption of pedestrian or vehicular traffic and any other critical activity or functions consistent with the original use of the land. The requirements for temporary paving of streets, walks, and driveways are specified elsewhere. Unsightly mounds of earth, large stones, boulders, and debris shall be removed so that the site presents a neat appearance.
- C. The CONTRACTOR shall perform the cleanup work on a regular basis and as frequently as ordered by the CITY. Basic site restoration in a particular area shall be accomplished immediately following the installation or completion of the required facilities in that area. Furthermore, such work shall also be accomplished, when ordered by the CITY, if partially completed facilities must remain incomplete for some time due to unforeseen circumstances.
- D. Upon failure of the CONTRACTOR to perform periodic cleanup and basic restoration of the site to the CITY's satisfaction, the CITY may, upon five (5) days prior written notice to the CONTRACTOR, without prejudice to any other rights or remedies of the CITY, cause such work for which the CONTRACTOR is responsible to be accomplished to the extent deemed necessary by the CITY, and all costs resulting there from shall be charged to the CONTRACTOR and deducted from the amounts of money that may be due him. Under no circumstances shall the contractor allow construction or demolition debris to enter any filter piping or adjacent filters, Contractor to use pipe plugs and other barriers where appropriate.

1.18 USE OF FACILITIES BEFORE COMPLETION

- A. The CITY reserves the right to enter and use any portion of the constructed facilities before final completion of the whole work to be done under this Contract. However, only those portions of the facilities which have been completed to the CITY's satisfaction, as evidenced by his issuing a Certificate of Substantial Completion covering that part of the work, shall be placed in service.
- B. It shall be the CITY's responsibility to prevent premature connections to or use of any portion of the installed facilities by private or public parties, persons or groups of persons, before the CITY issues his Certificate of Substantial Completion covering that portion of the work to be placed in service.
- C. Consistent with the approved progress schedule, the CONTRACTOR shall cooperate with the CITY, his agents, and the CITY to accelerate completion of those facilities, or portions thereof, which have been designated for early use by the CITY.

PART 2 -- PRODUCTS (Not Used)**PART 3 -- EXECUTION (Not Used)**

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 01025
MEASUREMENT AND PAYMENT****PART 1 -- GENERAL****1.01 THE REQUIREMENT**

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

1.02 SUBMITTALS

- A. Informational:
 - 1. Schedule of Values: Submit schedule on CITY's form.
 - 2. Application for Payment.
 - 3. Final Application for Payment.
- B. Submittals shall be in accordance with Section 01300 entitled "Submittals".

1.03 MEASUREMENT—GENERAL

- A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and Specifications as specified in National Institute of Standards and Technology, Handbook 44.
- B. Whenever pay quantities of material are determined by weight, material shall be weighed on scales furnished by CONTRACTOR and certified accurate by state agency responsible. Weight or load slip shall be obtained from weigher and delivered to CITY or CITY's representative at point of delivery of material.
- C. If material is shipped by rail, car weights will be accepted provided that actual weight of material only will be paid for and not minimum car weight used for assessing freight tariff and provided further that car weights will not be acceptable for material to be passed through mixing plants.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- D. Vehicles used to haul material being paid for by weight shall be weighed empty daily and at such additional times as required by CITY. Each vehicle shall bear a plainly legible identification mark.
- E. Materials that are specified for measurement by the cubic yard measured in the vehicle shall be hauled in vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.
- F. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on Drawings. Variations of 1 foot or less will be ignored, and profiles shown on Drawings will be used for determining quantities.
- G. Units of measure shown on Bid Form shall be as follows, unless specified otherwise. All methods of measurement shall be approved by the CITY.

Item	Method of Measurement
AC	Acre—Field Measure
CY	Cubic Yard—Field Measure within limits specified or shown, or measured in vehicle by volume, as specified
EA	Each—Field Count
GAL	Gallon—Field Measure
HR	Hour
LB	Pound(s)—Weight Measure by Scale
LF	Linear Foot—Field Measure
LS	Lump Sum—Unit is one; no measurement will be made
SF	Square Foot
SY	Square Yard
TON	Ton—Weight Measure by Scale (2,000 pounds)

1.04 APPLICATION FOR PAYMENT

- A. Transmittal Summary Form: Attach one Summary Form with each detailed Application for Payment. Execute certification by authorized officer of CONTRACTOR.
- B. Use detailed Application for Payment Form provided by CITY.
- C. Preparation:
 - 1. Round values to nearest dollar.
 - 2. List each Change order and Written Amendment executed prior to date of submission as separate line item. Totals to equal those shown on the Transmittal Summary Form.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

3. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form, a listing of materials on hand as applicable, and such supporting data as may be requested by the CITY.

1.05 PAYMENT

A. General:

1. Progress payments will be made monthly.
2. The date for CONTRACTOR's submission of monthly Application for Payment shall be established at the Preconstruction Conference.

B. Payment for Lump Sum Work covers all Work specified or shown for the following items:

ITEM	DESCRIPTION										
1. General Requirements	Payment for the full cost of all bonds, insurances, licenses, and all administrative costs not specifically identified in other bid items. Cost for this item shall not exceed 10 percent of the total bid amount.										
2. Mobilization and Demobilization (Sum of mobilization and demobilization shall not exceed 3% of the total bid amount.)	<p>Payment for the full compensation for all mobilization/demobilization activities, including but not limited to transport of personnel, materials, equipment, and other incidentals to the site, all notifications to public including but not limited to flyers and other notifications, preparation of submittals including schedule, permit packages, and others, temporary facilities and offices, safety equipment and first aid supplies, project signs meeting City standards, field surveys, sanitary and other facilities required by the specifications, audio-video documentation of the existing site, any space required for staging, laydown, survey, storage, parking, security, project meetings, preparation of the project record documents as specified in the technical specification, etc., and all other pre- or post-construction expenses necessary for the start or cessation of the Work.. Partial payments for mobilization will be made as follows:</p> <table> <tr> <th>Construction % Complete</th><th>Allowable % of Lump Sum for Mobilization</th></tr> <tr> <td>5</td><td>25</td></tr> <tr> <td>10</td><td>50</td></tr> <tr> <td>25</td><td>75</td></tr> <tr> <td>100</td><td>100</td></tr> </table>	Construction % Complete	Allowable % of Lump Sum for Mobilization	5	25	10	50	25	75	100	100
Construction % Complete	Allowable % of Lump Sum for Mobilization										
5	25										
10	50										
25	75										
100	100										

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

ITEM	DESCRIPTION
Underdrain Inspection – All Filters identified in scope of work.	Included in this item are all material, labor, and equipment necessary for Manufacturer to inspect underdrain for proper operation, identify and perform all needed repairs, recommend replacement if required. Detailed inspection report of findings to be provided to the City.
Filter Media – All Filters identified in scope of work.	Furnish all labor, materials, equipment, and appurtenances, required to remove and dispose of the existing filter media. Install new filter media (gravel, sand, and anthracite), as specified and in accordance with the Contract Documents. Top of new media to be installed 2" below existing agitator arm.
Filter Influent Valves – All Filters identified in scope of work.	Furnish all materials, labor, and equipment, to inspect Influent Valve for proper operation. Clean and repair as needed.
Filter Underdrain Replacement	If required, furnish, deliver, install, test, and place into satisfactory operation a new underdrain system complete with all necessary accessories per Manufacturer's recommendations.
Influent Valve Replacement	If required, furnish all materials, labor, equipment, and appurtenances, to replace valve in its entirety.
Filter Disinfection – All Filters identified in scope of work.	Each filter shall be disinfected as specified and in accordance with the Contract Documents.
Red Security Alert Allowance	Allowance for special demobilization and remobilization for emergency purposes.

1.06 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

A. Payment will not be made for following:

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

1.07 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial Payment: No partial payments will be made for materials and equipment delivered or stored.
- B. Final Payment: Will be made only for products incorporated in Work; remaining products, for which partial payments have been made, shall revert to CONTRACTOR unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

1.08 ALLOWANCES

MEASUREMENT AND PAYMENT

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- A. The Allowances shall be used only at the discretion of and as ordered by the CITY for such items described.
- B. Any portion of these allowances that remain after all authorized payments have been made will be withheld from contract payments and will remain with the CITY.

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

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 01040
COORDINATION****PART 1 -- GENERAL****1.01 THE REQUIREMENT**

- A. The CONTRACTOR shall allow the CITY or the CITY's agents and contractors from other projects or their agents, to enter upon the work for the purpose of constructing, operating, maintaining, removing, repairing, altering, or replacing such pipes, sewers, conduits, manholes, wires, poles, or other structures and appliances which may be required to be installed at or in the work. The CONTRACTOR shall cooperate with all aforesaid parties and shall allow reasonable provisions for the prosecution of any other work by the CITY, or others, to be done in connection with his work, or in connection with normal use of the facilities.
- B. Each CONTRACTOR shall cooperate fully with the CITY and all other CONTRACTORS employed on the work, to effect proper coordination and progress to complete the project on schedule and in proper sequence. Insofar as possible, decisions of all kinds required from the CITY shall be anticipated by the CONTRACTOR to provide ample time for inspection, or the preparation of instructions.
- C. Each CONTRACTOR shall assume full responsibility for the correlation of all parts of his work with that of other CONTRACTORS. Each CONTRACTOR's superintendent shall correlate all work with other CONTRACTORS in the laying out of work. Each CONTRACTOR shall lay out his own work in accordance with the Drawings, Specifications, and instructions of latest issue and with due regard to the work of other CONTRACTORS.
- D. Periodic coordinating conferences shall be held in accordance with Section 01200, Project Meetings, of these Contract Documents.

1.02 SUBMITTALS

- A. Video Recordings: Submit one copy within five days of being taken.

1.03 ADJACENT FACILITIES AND PROPERTIES

- A. Examination:
 - 1. After Effective Date of the Agreement and before Work at site is started, CONTRACTOR, CITY, and affected property owners and utility owners shall make a thorough examination of pre-existing conditions including existing buildings, structures, and other improvements in vicinity of Work, as applicable, which could be damaged by construction operations.
 - 2. Periodic reexamination shall be jointly performed to include, but not limited to, cracks in structures, settlement, leakage, and similar conditions.
- B. Documentation:
 - 1. Record and submit documentation of observations made on examination inspections in accordance with article 1.05 "AUDIO-VIDEO RECORDINGS".
 - 2. Upon receipt, CITY will review, sign, and return one record copy of documentation to CONTRACTOR to be kept on file in field office.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

3. Such documentation shall be used as indisputable evidence in ascertaining whether, and to what extent, damage occurred as a result of CONTRACTOR's operations, and is for the protection of adjacent property owner, CONTRACTOR, and CITY.

1.04 CONSTRUCTION PHOTOGRAPHS

1.05 AUDIO-VIDEO RECORDINGS

- A. Prior to beginning Work on construction site or of a particular area of the Work, and again within 10 days following date of Substantial Completion, video graph construction work area and area adjacent to the work area.
- B. In the case of preconstruction recording, no Work shall begin in the area prior to CITY's review and approval of content and quality of video for that area.
- C. Particular emphasis shall be directed to physical condition of existing vegetation, structures, and pavements within the areas adjacent to and within the work zone or easement, and on CONTRACTOR storage and staging areas.
- D. CITY shall have right to select subject matter and vantage point from which videos are to be taken.
- E. Video taping shall be by a professional commercial videographer, experienced in shooting construction videos.
- F. Video Format and Quality:
 1. DVD format, with sound.
 2. Video:
 - a. Produce bright, sharp, and clear images with accurate colors, free of distortion and other forms of picture imperfections.
 - b. Electronically, and accurately display the month, day, year, and time of day of the recording.
 3. Audio:
 - a. Audio documentation shall be done clearly, precisely, and at a moderate pace.
 - b. Indicate date, Project name, and a brief description of the location of taping, including:
 - 1) Facility name;
 - 2) Filter number; and
 - 3) Direction of coverage.
- G. Documentation:
 1. DVD Tape Label:
 - a. DVD number (numbered sequentially, beginning with 001).
 - b. Project Name.
 - c. Name of filters included.
 - d. Date and time of coverage.

PART 2 - PRODUCTS - (NOT USED)**PART 3 – EXECUTION - (NOT USED)****- END OF SECTION -**

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

SECTION 01070 ABBREVIATIONS

PART 1 -- GENERAL

1.01 THE REQUIREMENT

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

1.02 ABBREVIATIONS AND ACRONYMS

AAMA	Architectural Aluminum Manufacturer's Association
AASHTO	American Association of the State Highway and Transportation Officials
ACI	American Concrete Institute
ACOE	Army Corps of Engineers
ACPA	American Concrete Pipe Association
AFBMA	Anti-Friction Bearing Manufacturer's Association, Inc.
AGMA	American Gear Manufacturer's Association
AHGDA	American Hot Dip Galvanizers Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
ISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
API	American Petroleum Institute
APHA	American Public Health Association
APWA	American Public Works Association
ASA	Acoustical Society of America
ASAE	American Society of Agriculture Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASLE	American Society of Lubricating Engineers
ASME	American Society of Mechanical Engineers

ABBREVIATIONS

01070-1

CAM 22-0100

Exhibit 1

Page 125 of 193

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

ASMM	Architectural Sheet Metal Manual
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BCHD	Broward County Health Department
BCEPD	Broward County Environmental Protection Department (formerly BCDNRP and formerly BCDPEP)
BCDPEP	See BCEPD
BCDNRP	See BCEPD
BHMA	Builders Hardware Manufacturer's Association
CMA	Concrete Masonry Association
CRSI	Concrete Reinforcing Steel Institute
DIPRA	Ductile Iron Pipe Research Association
EIA	Electronic Industries Association
ETL	Electrical Test Laboratories
FBC	Florida Building Code
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FS	Federal Specifications
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Systems and Automation
ISO	International Organization for Standardization
MBMA	Metal Building Manufacturers Association
MMA	Monorail Manufacturers Association
MTI	Marine Testing Institute
NAAM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association

ABBREVIATIONS

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

NFPA	National Fire Protection Association
NIOSH	National Institute of Occupational Safety and Health
NIST	National Institute of Standards and Testing
NRCA	National Roofing Contractors Association
NSF	National Science Foundation
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SSPC	Society of Protective Coating
SSPWC	Standard Specifications for Public Works Construction
SFWMD	South Florida Water Management District
UL	Underwriters Laboratories, Inc.

PART 2 -- PRODUCTS (Not Used)**PART 3 -- EXECUTION (Not Used)**

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 01090
REFERENCE STANDARDS****PART 1 -- GENERAL****1.01 THE REQUIREMENT**

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

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Without limiting the generality of other requirements of the specifications, all work specified herein shall conform to or exceed the requirements of all applicable codes.
- B. References herein to "Building Code" shall mean the Florida Building Code (FBC). The latest edition of the code as approved and used by the local agency as of the date of the opening of bids, as adopted by the agency having jurisdiction, shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.
- C. In case of conflict between codes, reference standards, Drawings and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the CITY for clarification and directions prior to ordering or providing any materials or labor. The CONTRACTOR shall follow the most stringent requirements.
- D. Applicable Standard Specifications: The CONTRACTOR shall construct the Work specified herein in accordance with the requirements of the Contract Documents and the referenced portions of those referenced codes, standards, and Specifications listed herein.
- E. References herein to "OSHA Regulations for Construction" shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

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

PART 2 -- PRODUCTS (Not Used)**PART 3 -- EXECUTION (Not used)**

-END OF SECTION-

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 01200
PROJECT MEETINGS****PART 1 -- GENERAL****1.01 PRECONSTRUCTION MEETING**

- A. General: A preconstruction meeting will be held after Award of Contract, but prior to starting work at the site. The CITY will schedule the meeting at a mutually agreed time.
- B. Location:
1. Fiveash Water Treatment Plant
First Floor Training Room
4329 NW 9th Ave.
Fort Lauderdale, Florida 33309
- C. Attendance:
1. Owner
 2. CITY
 3. Contractor
 4. Major subcontractors
 5. Safety representative
 6. Representatives of governmental or other regulatory agencies.
- D. Minimum Agenda: The purpose of the meeting is to designate responsible personnel and establish a working relationship. The agenda will include the following:
1. Emergency Contact Information
 2. Tentative construction schedule
 3. Critical work sequencing
 4. Designation of responsible personnel
 5. Processing of Field Decisions and Change Orders
 6. Adequacy of distribution of Contract Documents
 7. Submittal of Shop Drawings and samples
 8. Procedures for maintaining record documents
 9. Use of site and CITY's requirements
 10. Major equipment deliveries and priorities
 11. Safety and first aid procedures
 12. Security procedures
 13. Housekeeping procedures
 14. Processing of Partial Payment Requests
 15. General regard for community relations
- E. Duties: The CITY will preside at the meeting and will keep and distribute meeting minutes.

1.02 PROJECT PROGRESS MEETING

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- A. Frequency: Project progress meetings will be held bi-weekly during the performance of the work of this Contract. Additional meetings may be called as progress of work dictates. Meetings may be held less frequently at the discretion of the CITY.
- B. Location:
1. Fiveash Water Treatment Plant
First Floor Training Room
4329 NW 9th Ave.
Fort Lauderdale, Florida 33309
- C. Attendance:
1. Owner
 2. CITY
 3. Contractor
 4. The CONTRACTOR may at its discretion request attendance of it's subcontractors, suppliers and manufacturers.
- D. Minimum Agenda: The purpose of the meetings will be to review progress of the work and maintain coordination efforts. The agenda will include the following:
1. Review and approve minutes of previous meetings.
 2. Review progress of Work since last meeting.
 3. Review proposed 30-60 day construction schedule.
 4. Note and identify problems which impede planned progress.
 5. Develop corrective measures and procedures to regain planned schedule.
 6. Revise construction schedule as indicated and plan progress during next work period.
 7. Maintaining of quality and work standards.
 8. Complete other current business.
 9. Schedule next progress meeting.
- E. Duties: The CITY OR ITS DESIGNEE will preside at the meeting and will keep and distribute meeting minutes.

PART 2 – PRODUCTS - (NOT USED)**PART 3 – EXECUTION - (NOT USED)****- END OF SECTION -**

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485

**SECTION 01311
CONSTRUCTION SCHEDULES****PART 1 -- GENERAL****1.1 SUBMITTALS**

- A. The CONTRACTOR shall provide a detailed Construction Schedule showing the CONTRACTOR's plan for completing the Work as required by the Contract Documents within the contract completion time. The format of the schedule shall be a bar chart (Gantt Chart). The schedule shall include the time from the date on the Notice to Proceed to the date for final completion. The date for final completion can be less than or equal to the date calculated from the contract time.
- B. The CONTRACTOR's Construction Schedule shall show activities including, but not limited to the following:
 - 1. Notice to Proceed
 - 2. Permits (Application preparation, submittal, and review)
 - 3. Submittals, with review time
 - 4. Early procurement activities for long lead equipment and materials
 - 5. Mobilization summary
 - 6. Initial site work
 - 7. Specified Work sequences and construction constraints
 - 8. Major equipment design, fabrication, factory testing, and delivery dates
 - 9. Major structural, mechanical, equipment, electrical, architectural, and instrumentation and control Work.
 - 10. The work required by the contract and not covered in the previous items
 - 11. Shutdowns of CITY facilities
 - 12. Access restrictions to CITY facilities, roadways, or private property
 - 13. System startup summary
 - 14. Contract Milestone and Completion Dates
 - 15. Substantial Completion
 - 16. Project closeout summary
 - 17. Demobilization summary
 - 18. Final Completion
- C. The CONTRACTOR shall show the duration and sequences of activities required for complete performance of the Work reflecting means and methods chosen by the CONTRACTOR.
- D. The procedure for approval of the Construction Schedule is as follows:
 - 1. The CONTRACTOR shall submit a Preliminary Construction Schedule within fourteen (14) calendar days after Contract Award.

CONSTRUCTION SCHEDULES**01311-1**

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485

2. The CITY shall provide comments within ten (14) calendar days of receipt of the Preliminary Construction Schedule.
 3. The CONTRACTOR shall address the CITY's comments and submit the initial Construction Schedule within ten (14) calendar days after receiving CITY review comments.
 4. After the CITY accepts the initial Construction Schedule, it will be used to track the Work. The Construction Schedule will be submitted to CITY Management, residents and entities having jurisdiction in or near the project area, as appropriate.
 5. The CONTRACTOR shall provide for each Construction Schedule submission four (4) legible color copies, or one emailed copy in PDF.
 6. For unacceptable Construction Schedule Submittals, the CONTRACTOR shall make requested corrections and resubmit within seven (7) calendar days.
- E. The CONTRACTOR shall update the schedule to depict the progress of the work. Updated schedules will be required:
1. For every progress meeting
 2. At the written request of the CITY
- The CONTRACTOR shall not change the completion time or other key durations in updated schedules without providing a written explanation to the CITY and obtaining written approval for the change from the CITY. The CONTRACTOR shall not provide an updated schedule showing a completion time greater than the contract time. Approved change orders are required to move the contract time, and the completion time shall not exceed the approved contract time. If it is necessary to show non approved adjustments to the completion time, non approved adjustments shall be shown as additional lines in the Gantt Chart below and separate from the approved progress schedule. In addition, the CONTRACTOR shall add the heading, "Non-Approved Adjustments" above the lines added to the Gantt Chart. Despite being shown on the schedule, non approved adjustments shall not be construed to indicate approval of a change to the project completion time.
- F. If the CONTRACTOR fails to complete an activity by its latest scheduled completion date and this failure is anticipated to extend Contract Times (or Milestones), the CONTRACTOR shall, within seven (7) calendar days of such failure, submit a written statement as to how the CONTRACTOR intends to correct nonperformance and return to acceptable current progress schedule. Actions by the CONTRACTOR to complete the Work within Contract Times (or Milestones) will not be justification for adjustment to Contract Price or Contract Times.
- G. If the progress of the Work does not appear sufficient to complete the work within the contract time, the CONTRACTOR shall provide a recovery schedule at the request of the CITY. The recovery schedule shall show completion within the contract time and shall include descriptions of the changes the CONTRACTOR will make to meet the contract completion time.

CONSTRUCTION SCHEDULES

01311-2

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485

1.2 APPROVED CONSTRUCTION SCHEDULE

- A. When accepted by the CITY, the initial Construction Schedule will replace the Preliminary Construction Schedule. Subsequent revisions will be considered as Updated Construction Schedules and will be numbered sequentially.

1.3 CONSTRUCTION SCHEDULE – FORMAT

- A. General: The Progress Schedule shall be a bar chart (Gantt Chart). Computer generated schedules, Microsoft Project.
- B. The Construction Schedule and Updates shall:
 - 1. Show days as the unit of measure
 - 2. Show all project-related activities reasonably required to complete the Work
 - 3. Show interdependence and sequence of construction
 - 4. Identify the Work of separate stages and other logically grouped activities, and clearly identify critical path of activities.
- C. For submittal of Construction Schedules and Updates, the CONTRACTOR shall:
 - 1. Provide the schedule printed on paper not greater than 11 inches by 17 inches or smaller than 8 1/2 inches by 11 inches, unless otherwise approved. If necessary, the schedule shall be printed in color.

Include a title block on each page of the schedule showing the name of the Project, CITY, date submitted, revision or update number, and the name of the scheduler. Updated schedules shall indicate the current data date. If the schedule has more than one page, all pages shall be numbered.
 - 2. Identify horizontally across top of the schedule the timeframe by year, month, and day.
 - 3. Identify each activity with a descriptive title. If necessary, the CONTRACTOR shall add notes at the bottom of the schedule with brief descriptions of the Work associated with that activity.
 - 4. Indicate the critical path on the schedule.
 - 5. Provide notes below the bar chart schedule to describe any controlling relationships between activities.
 - 6. Plot activities on a time-scaled basis, with the length of each activity proportional to the current estimate of the duration.
 - 7. Provide a legend to describe standard and special symbols used.

1.4 CONSTRUCTION SCHEDULE UPDATES

- A. Updated Construction Schedules Shall Reflect:
 - 1. Progress of Work to within two (2) working days prior to submission

CONSTRUCTION SCHEDULES

01311-3

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485

2. Approved changes in Work scope and activities modified since the schedule or last update was accepted.
 3. Delays in Submittals or resubmittals, deliveries, or Work
 4. Adjusted or modified sequences of Work
 5. Other identifiable changes
 6. Revised projections of progress and completion
- B. The CONTRACTOR shall produce detailed sub-schedules during the Project, upon request of the CITY to further define critical portions of the Work such as facility shutdowns.
- C. The CONTRACTOR shall produce a highlighted 4-week Look Ahead Schedule for construction meetings as determined by the CITY, with schedule information compiled from the latest DETAILED PROGRESS SCHEDULE update.
- D. CITY may direct the CONTRACTOR to increase plant, equipment, labor force or working hours if CONTRACTOR fails to:
1. Complete a Milestone activity by its completion date.
 2. Satisfactorily execute Work as necessary to prevent delay to overall completion of Project, at no additional cost to CITY.

1.5 SCHEDULE ACCEPTANCE

- A. The CITY's Acceptance will demonstrate agreement that:
1. The proposed schedule is accepted with respect to:
 - a. Contract Times, including Final Completion and all intermediate Milestones are within the specified times.
 - b. Specified Work sequences and constraints are shown as specified.
 - c. Specified CITY-furnished Equipment or Material arrival dates, or range of dates, are included.
 - d. Access restrictions are accurately reflected.
 - e. Start-up and testing times are as specified.
 - f. Submittal review times are as specified.
 - g. Startup testing duration is as specified and timing is acceptable

CONSTRUCTION SCHEDULES

01311-4

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485

2. In all other respects, CITY's acceptance of the CONTRACTOR's schedule indicates that, in the CITY's judgment, the schedule represents a reasonable plan for constructing the Work in accordance with the Contract Documents. The CITY's review will not make any change in the Contract requirements. Lack of comment on any aspect of the schedule that is not in accordance with the Contract Documents will not indicate acceptance of that change.
3. The Schedule remains the CONTRACTOR's responsibility and the CONTRACTOR retains responsibility for performing all activities, for activity durations, and for activity sequences required to construct the Work in accordance with the Contract Documents.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

END OF SECTION

CONSTRUCTION SCHEDULES

01311-5

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 01400
QUALITY CONTROL****PART 1 -- GENERAL****1.01 THE REQUIREMENT****A. Testing Laboratory Services**

1. Laboratory bacteriological testing, shall be provided by the CITY unless otherwise indicated in the Specifications.
2. Materials to be tested include, but are not necessarily limited to the following:
 - a. filter water during bacteriological testing
 - b. filter media
3. Tests required by the CITY shall not relieve the CONTRACTOR from the responsibility of supplying test results and certificates from manufacturers or suppliers to demonstrate conformance with the Specifications.
4. Procedure
 - a. The CONTRACTOR shall plan and conduct his operations to permit taking of field samples and test specimens, as required, and to allow adequate time for laboratory tests.
 - b. The collection, field preparation and storage of field samples and test specimens shall be as directed by the CITY with the cooperation of the CONTRACTOR.
5. Significance of Tests
 - a. Test results shall be binding on both the CONTRACTOR and the CITY, and shall be considered irrefutable evidence of compliance or noncompliance with the Specification requirements, unless supplementary testing shall prove, to the satisfaction of the CITY, that the initial samples were not representative of actual conditions.
6. Supplementary and Other Testing
 - a. Nothing shall restrict the CONTRACTOR from conducting tests he may require. Should the CONTRACTOR at any time request the CITY to consider such test results, the test reports shall be certified by an independent testing laboratory acceptable to the CITY. Testing of this nature shall be conducted at the CONTRACTOR's expense.

1.02 IMPERFECT WORK, EQUIPMENT, OR MATERIALS

- A. Any defective or imperfect work, equipment, or materials furnished by the CONTRACTOR which is discovered before the final acceptance of the work, as established by the Certificate of Substantial Completion, or during the subsequent guarantee period, shall be removed immediately even though it may have been overlooked by the CITY and estimated for payment. Any equipment or materials condemned or rejected by the CITY shall be tagged as such and shall be immediately removed from the site. Satisfactory work or materials shall be substituted for that rejected.
- B. The CITY may order tests of imperfect or damaged work, equipment, or materials to determine the required functional capability for possible acceptance, if there is no other reason for rejection. The cost of such tests shall be borne by the CONTRACTOR; and the nature, tester, extent and supervision of the tests will be as determined by the CITY. If the results of the tests indicate that the required functional capability of the work, equipment, or material was not impaired, consistent with the final general appearance of same, the work, equipment, or materials may be deemed

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

acceptable. If the results of such tests reveal that the required functional capability of the questionable work, equipment, or materials has been impaired, then such work, equipment, or materials shall be deemed imperfect and shall be replaced. The CONTRACTOR may elect to replace the imperfect work, equipment, or material in lieu of performing the tests.

1.03 INSPECTION AND TESTS

- A. The CONTRACTOR shall allow the CITY ample time and opportunity for testing materials and equipment to be used in the work. He shall advise the CITY promptly upon placing orders for material and equipment so that arrangements may be made, if desired, for inspection before shipment from the place of manufacture. The CONTRACTOR shall always furnish the CITY and his representatives, facilities including labor, and allow proper time for inspecting and testing materials, equipment, and workmanship. The CONTRACTOR must anticipate possible delays that may be caused in the execution of his work due to the necessity of materials and equipment being inspected and accepted for use. The CONTRACTOR shall furnish, at his own expense, all samples of materials required by the CITY for testing, and shall make his own arrangements for providing water, electric power, or fuel for the various inspections and tests of structures and equipment.
- B. The CONTRACTOR shall furnish the services of representatives of the manufacturers of certain equipment, as prescribed in other Sections of the Specifications. The CONTRACTOR shall also place his orders for such equipment on the basis that, after the equipment has been tested prior to final acceptance of the work, the manufacturer will furnish the CITY with certified statements that the equipment has been installed properly and is ready to be placed in functional operation. Tests and analyses required of equipment shall be paid for by the CONTRACTOR, unless specified otherwise in the Section which covers a particular piece of equipment.
- C. Whenever nonconformance is determined by the CITY because of such tests, inspections, or investigations, the CONTRACTOR shall bear the full cost thereof or shall reimburse the CITY for said cost. In this connection, the cost of any additional tests and investigations, which are ordered by the CITY to ascertain subsequent conformance with the Contract Documents, shall be borne by the CONTRACTOR.

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

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

**SECTION 01500
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS****PART 1 -- GENERAL****1.1. REFERENCES**

A. The following is a list of standards which may be referenced in this Section:

1. NFPA, National Fire Prevention Standard for Safeguarding Building Construction Operations.
2. Florida Department of Law Enforcement – Domestic Terrorism Task Force for Code Orange Conditions.

1.2 SUBMITTALS

A. Informational Submittals:

1. Copies of permits and approvals for construction as required by laws and regulations and governing agencies.
2. Submit a "Contractor Staging Area Location Plan" in accordance with Section 01300, entitled "Submittals".

1.3 MOBILIZATION

A. Mobilization shall include, but not be limited to, these principal items:

1. Obtaining required permits.
2. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
3. Arrange with the CITY a location for Contractor Staging Area. Arrange for size and location. Coordinate with the work of other contractors that are working on the site.
4. Posting OSHA required notices and establishing safety programs and procedures.
5. Have CONTRACTOR's superintendent at site full time.
6. Post Project Sign.

B. CONTRACTOR is responsible for finding a suitable location for a project staging and material storage area, as required.

1.4 PERMITS

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

1.5 PROTECTION OF WORK AND PROPERTY

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

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

PART 3 -- EXECUTION**3.1 TEMPORARY UTILITIES****A. Power:**

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

B. Lighting: Provide temporary lighting to meet all applicable safety requirements to allow erection, application, or installation of materials and equipment, and observation or inspection of the Work.**C. Heating, Cooling, and Ventilating:**

1. Provide as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for installation of materials, and to protect materials, equipment, and finishes from damage due to temperature or humidity.
2. Provide adequate forced air ventilation of enclosed areas to cure installed materials, to dispense humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.
3. Pay all costs of installation, maintenance, operation, removal, and fuel consumed.

D. Potable Water – Dispenser Furnished: The CONTRACTOR shall furnish bottled drinking water or water furnished in other suitable dispensers for their construction personnel.**E. Sanitary and Personnel Facilities:** Provide and maintain facilities for CONTRACTOR's employees, Subcontractors, and all other onsite employer's employees. Service, clean, and maintain facilities and enclosures.**F. Fire Protection:** Furnish and maintain on site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable parts of National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241).**3.2 PROTECTION OF WORK AND PROPERTY****A. General:**

1. Where completion of the Work requires temporary or permanent removal and/or relocation of existing utility, coordinate all activities with CITY of said utility and perform all work to their satisfaction.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

2. Always keep fire hydrants and water control valves free from obstruction and available for use.
3. In areas where CONTRACTOR's operations are adjacent to or near a utility, such as gas, telephone, television, electric power, water, sewer, or irrigation system, and such operations may cause damage or inconvenience, suspend operations until arrangements necessary for protection have been made by CONTRACTOR.
4. Do not impair operation of existing utility systems. Prevent construction material, pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering the operating water treatment plant filters.

B. Site Security:

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

3. Code Red Conditions:

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

- a. Work on secure sites will be stopped for the duration of code red conditions. No access by CONTRACTOR or subcontractor personnel will be permitted until clearance has been granted by the CITY.
- b. The CONTRACTOR will be compensated for standby delay under code red conditions as provided in Section 01025.

C. Barricades and Lights:

1. Provide as necessary to prevent unauthorized entry to construction areas and affected roads, streets, and alleyways, inside and outside of fenced area, and as required to ensure public safety and the safety of CONTRACTOR's employees, other employer's employees, and others who may be affected by the Work.

D. Finished Construction: Protect finished floors and concrete floors exposed as well as those covered with composition tile or other applied surfacing.

3.3 TEMPORARY CONTROLS

A. Air Pollution Control:

1. Minimize air pollution from construction operations.
2. Burning: Of waste materials, rubbish, or other debris will not be permitted on or adjacent to site.
3. Conduct operations of carrying away demolition debris in trucks to cause a minimum of dust. Strictly adhere to applicable environmental regulations for dust prevention.

B. Noise Control:

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

3.4 STORAGE YARDS AND BUILDINGS

A. Temporary Storage Yards: Construct temporary storage yards for storage of products that are not subject to damage by weather conditions.

B. Temporary Storage Buildings:

1. Provide environmental control systems that meet recommendations of manufacturers of equipment and materials stored.
2. Arrange or partition to provide security of contents and ready access for inspection and inventory.
3. Store combustible materials (paints, solvents, fuels) in a well-ventilated and remote building meeting safety standards.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

3.5 PARKING AREAS

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, CITY's operations, or construction operations.
- B. Coordinate with the CITY to obtain a designated parking area for employees working on this project.

3.6 CLEANUP PROCEDURES FOR HURRICANE WARNINGS AND WATCHES

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

3.7 CLEANING DURING CONSTRUCTION

- A. In accordance with General Conditions, as may be specified in Specification sections, and as required herein.
- B. Wet down exterior surfaces prior to sweeping to prevent blowing of dust and debris. At least weekly, sweep all floors (basins, tunnels, platforms, walkways, roof surfaces), and pick up all debris and dispose.
- C. Provide approved containers for collection and disposal of waste materials, debris, and rubbish. At least at weekly intervals, dispose of such waste materials, debris, and rubbish offsite.
- D. Thoroughly clean all spilled dirt, gravel, or other foreign material caused by the construction operations from all streets and roads at the conclusion of each day's operation. Sidewalks, unless under construction, shall be kept clear of material, and available for pedestrian use always.

3.8 SUPPLEMENTS

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

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

**SECTION 01520
MAINTENANCE OF UTILITY OPERATIONS DURING CONSTRUCTION****PART 1 -- GENERAL****1.01 THE REQUIREMENT**

- A. The existing water treatment plant will be maintained in continuous operation by the CITY during the entire construction period of the Contract as hereinafter specified. The intent of this Section is to outline the minimum requirements necessary to provide continuous Water Treatment Plant operation throughout the construction period.
- B. Work under the Contract shall be scheduled and conducted by the CONTRACTOR so as not to impede any water treatment plant process except as explicitly permitted hereinafter. In performing the work shown and specified, the CONTRACTOR shall plan and schedule his work to meet the plant's daily and seasonal operating requirements, and the constraints and construction requirements as outlined in this Section.
- C. The CONTRACTOR shall be responsible for coordinating the general construction and the schedules of electrical, control system, HVAC, plumbing and related trades and for ensuring that permanent or temporary power and controls are available for all existing, proposed, and temporary facilities that are required to be online at any given time.
- D. The CONTRACTOR has the option of providing additional temporary facilities that can eliminate a constraint, provided it is done without cost to the CITY (including additional CITY labor) and provided that all requirements of these Specifications are fulfilled. Work not specifically covered in the following paragraphs may, in general, be done at any time during the contract period, subject to the operating requirements and constraints and construction requirements outlined hereinafter. All references to days in this Section shall be consecutive calendar days.
- E. The CONTRACTOR is advised that the work is to be performed in a fully operational water treatment plant, which is the principal source of potable water supply to the City of Fort Lauderdale and associated communities. The CONTRACTOR shall be fully responsible for all precautionary measures together with all remediation, cleanup, disinfection, regulatory agency fines and all other labor, materials, and costs associated with any contamination of the potable water supply caused directly or indirectly by the activities of the CONTRACTOR in the performance of the work.
- F. Notwithstanding other indemnification requirements of the Contract Documents, the CONTRACTOR shall also indemnify, defend, and hold harmless the CITY, and the CITY's agents from all legal action which may arise from contamination of the potable water supply caused directly or indirectly by the CONTRACTOR in the performance of the work.

1.02 GENERAL CONSTRAINTS

- A. The CONTRACTOR shall schedule the Work so that the water treatment plant is maintained in continuous operation. All treatment processes shall be maintained in continuous operation during the construction period except during approved process interruptions. All short-term system or partial systems shutdowns shall be approved by the CITY. Long-term process shutdowns and diversions shall conform to the requirements hereinafter specified and shall be minimized by the CONTRACTOR as much as possible. If in the judgment of the CITY, a requested shutdown is not required for the CONTRACTOR to perform the Work, the CONTRACTOR shall utilize approved

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

alternative methods to accomplish the Work. All shutdowns shall be coordinated with and scheduled at times suitable to the CITY. Shutdowns shall not begin until all required materials are on hand and ready for installation. Each shutdown period shall commence at a time acceptable to the CITY, in writing. Where required in the Construction Sequence, the CONTRACTOR shall proceed with the Work continuously, (24 hours/day, 7 days/week) start to finish, until the Work is completed and normal plant operation is restored.

- B. If the CONTRACTOR completes all required Work before the specified shutdown period has ended, the CITY may immediately place the existing system back into service.
 - C. The CONTRACTOR shall schedule short-term and extended shutdowns in advance and shall present all desired shutdowns in the 30 and 60-day schedules at the construction progress meetings. Shutdowns shall be fully coordinated with the Water Facilities Manager and Chief Operator at least 24 hours before the scheduled shutdown. CITY personnel shall operate CITY's facilities involved in the short-term and extended shutdowns.
 - D. Short term shutdowns in the water treatment plant flow will be allowed for tie-ins to existing facilities, installation of temporary bulkheads, etc. All such shutdowns shall be scheduled for low-flow period during the daily diurnal water demand (as determined by the Water Facilities Manager) and shall generally be limited to four (4) hours or less depending on water demand, system pressure, weather forecast, and amount of potable water stored onsite. The schedule and duration of short-term shutdowns shall be at the discretion of the CITY.
 - E. Any temporary work, facilities, roads, walks, protection of existing structures, piping, blind flanges, valves, equipment, etc. that may be required within the CONTRACTOR's work limits to maintain continuous and dependable water treatment plant operation shall be furnished by the CONTRACTOR at no extra cost to the CITY.
 - F. The CITY shall have the authority to order Work postponed, stopped or prohibited that would, in his opinion, unreasonably result in interrupting the necessary functions of the water treatment plant operations.
 - G. If the CONTRACTOR impairs performance or operation of the water treatment plant as a result of not complying with specified provisions for maintaining water treatment plant operations, then the CONTRACTOR shall immediately make all repairs or replacements and do all work necessary to restore the water treatment plant to operation to the satisfaction of the CITY. Such work shall progress continuously to completion on a 24-hours per day, seven work days per week basis.
 - H. The CONTRACTOR shall provide the services of emergency repair crews on call 24-hours per day.
 - I. CONTRACTOR shall coordinate scheduled shutdowns with the CITY.
- 1.03 GENERAL OPERATING REQUIREMENTS, CONSTRAINTS, AND CONSTRUCTION REQUIREMENTS
- A. Personnel Access: water treatment plant operations personnel shall have access to all areas that remain in operation throughout the construction period. The CONTRACTOR shall locate stored material, dispose of construction debris and trash, provide temporary walkways, provide temporary lighting, and other such work as identified by the CITY to maintain personnel access to areas in operation. Access for water treatment plant personnel must be maintained throughout construction.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

1.04 CONSTRUCTION SEQUENCE AND OPERATIONAL CONSTRAINTS

- A. General: Work under the Contract shall be scheduled and performed in such a manner as to result in the least possible disruption to the operation of the existing treatment facilities.
- B. Critical events in the sequence of construction are specified herein. The outlined sequence of construction does not include all items necessary to complete the work but is intended to identify the sequence of critical events necessary to minimize disruption to the on-going plant operations and to ensure compliance with regulatory requirements. It shall be understood by the CONTRACTOR that the critical events identified are not all inclusive and that additional items of work not shown may be required. The sequence of construction is a precedence requirement and does not attempt to schedule the CONTRACTOR's work. It is intended only to indicate which activities must precede other activities to minimize interferences and disruptions.
- C. At no time shall the CONTRACTOR undertake to close off any pipelines, or open valves, or take any other action that would affect the operation of the existing system, until authorization is granted by the CITY and after proper notification.
- D. The work to be performed by the CONTRACTOR involves additions, temporary facilities, and modifications to major operational systems within the treatment plant and other minor sub-processes. The CONTRACTOR will be required to "interface" with these active facilities and should ensure that these systems remain operational during all construction activities. Specific constraints to be placed on the work to be performed are summarized below. Note that this listing is subject to revision based on actual conditions.
- E. General constraints on the sequence of construction are as follows, for each filter:
 - 1. Under this Contract, no more than one (1) filter may be out of service at any one time. The anticipated work sequenced as follows:
 - a. Obtain the written permission of the CITY prior to initiating work in Filter No. 1. Once work is authorized for Filter No. 1, start, and finish the work for Filter No. 1, in accordance with the Contract Documents.
 - 2. The City may elect to change the order of the filter repairs.
 - 3. The CONTRACTOR shall coordinate with the CITY to remove a filter from service. The CONTRACTOR shall initiate work at this filter within seven days of the agreed upon date for removing the filter basin from service.
 - 4. Under normal conditions, all the filter basins are always in operation.
 - 5. Total downtime for one (1) filter basin, including testing, inspection, completion of punch list items and acceptance by the CITY shall not exceed 90 calendar days.
 - 6. CONTRACTOR shall notify CITY in writing at least seven (7) days prior to filter media washing and scraping operations. The CITY shall operate the filters when requested by the CONTRACTOR.
 - 7. Complete all work at the out of service filter in accordance with the Contract Documents (except for the disinfection and bacteriological sampling and testing). Once the CONTRACTOR deems that they have completed all work within the filter, in accordance with the Contract Documents, the contractor shall request the CITY to make a Substantial Completion inspection for that filter.
 - 8. The CITY will inspect and issue a punch list.
 - 9. Once the punch list items have been signed off by the CITY as being satisfactorily addressed, the CITY will issue a Certificate of Partial Completion for the filter.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION PROJECT 12485 PHASE 2

10. Disinfection operations shall be scheduled by the CONTRACTOR as soon as possible after the contractor receives a Certificate of Partial Completion for the filter that is being rehabilitated.
11. Disinfect the filter in accordance with this specification.
12. After successful completion of the disinfection procedure, the CITY will flush the filter of chlorinated water. After flushing, the CITY will fill the filter with finished water.
13. The CITY will perform bacteriological sampling and testing of the filters. Bacteriological testing shall be performed by the CITY's testing laboratory at the expense of the CITY. Testing procedures and results of the bacteriological testing shall be satisfactory to the Broward County Health Department.
14. Once the satisfactory bacteriological test results are received by the CITY, the CITY will give the CONTRACTOR written permission to initiate work in another filter.
15. Once the modified filter successfully completes the bacteriological testing, the CITY may return the filter to service.
16. If results of the tests are not acceptable, the disinfection of the system shall be repeated until the bacteriological test is satisfactory to the Broward County Health Department.
17. Obtain the written permission of the CITY prior to initiating work in another filter.
18. Repeat steps 1a through 17 for remaining filters, in the following sequence:

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

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 01540
DEMOLITION AND REMOVAL OF EXISTING STRUCTURES AND EQUIPMENT**

PART 1 -- GENERAL**1.01 THE REQUIREMENT**

- A. This Section covers the demolition, removal, and disposal of existing concrete, metals, piping, filter media and other items as indicated on the Drawings to be removed and as specified hereinafter.
- B. The CONTRACTOR shall furnish all labor, materials and equipment as required for the demolition, removal, and disposal of items to be removed as indicated on the Drawings.

1.02 CONDITION OF STRUCTURES AND EQUIPMENT

- A. The CITY does not assume responsibility for the actual condition of filter media or structures and equipment to be demolished and removed.
- B. Conditions existing at the time of inspection for bidding purposes will be maintained by the CITY so far as practicable.
- C. The information regarding the existing filter media or structures and equipment shown on the Drawings is based on visual inspection and a walk-through survey only. The CITY will not be responsible for interpretations or conclusions drawn there from by the CONTRACTOR.

PART 2 – PRODUCTS - (NOT USED)**PART 3 -- EXECUTION****3.01 DEMOLITION AND REMOVALS**

- A. The removal of all materials shown on the drawings to be removed, shall be done by the CONTRACTOR and shall become the CONTRACTOR's property for disposition in any manner not contrary to the Contract requirements and shall be removed from the site to the CONTRACTOR's own place of disposal.
- B. The CONTRACTOR shall proceed with the removal of the piping, appurtenances and existing filter media in a sequence designed to maintain the plant in continuous operation as described in Section 01520, Maintenance of Utility Operations during Construction, and shall proceed only after approval of the CITY.
- C. Any equipment piping, and appurtenances removed without proper authorization or damaged during the media demolition removal and replacement, which are necessary for the operation of the existing facilities, shall be replaced to the satisfaction of the CITY at no cost to the CITY.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

3.02 PROTECTION

- A. Demolition and removal work shall be performed by competent experienced workmen for the various type of demolition and removal work and shall be carried out through to completion with due regard to the safety of CITY employees, workmen on-site and the public. The work shall be performed with as little nuisance as possible.
- B. The work shall comply with the applicable provisions and recommendation of ANSI A10.2, Safety Code for Building Construction, all governing codes, and as hereinafter specified.
- C. The CONTRACTOR shall make such investigations, explorations, and probes as are necessary to ascertain any required protective measures before proceeding with demolition and removal. The CONTRACTOR shall give particular attention to shoring and bracing requirements to prevent any damage to new or existing construction.
- D. The CONTRACTOR shall provide, erect, and maintain catch platforms, lights, barriers, weather protection, warning signs and other items as required for proper protection of the public, occupants of the building, workmen engaged in demolition operations, and adjacent construction and plant operations.
- E. The CONTRACTOR shall provide and maintain weather protection at exterior openings to fully protect the interior premises against damage from the elements until such openings are closed by new construction.
- F. The CONTRACTOR shall provide and maintain temporary protection of the existing structure designated to remain where demolition, removal and new work is being done, connections made, materials handled, or equipment moved.
- G. The CONTRACTOR shall take necessary precautions to prevent dust from rising by wetting demolished masonry, concrete, plaster, and similar debris. Unaltered portions of the existing buildings affected by the operations under this Section shall be protected by dust-proof partitions and other adequate means.
- H. The CONTRACTOR shall provide adequate fire protection in accordance with local Fire Department requirements.
- I. The CONTRACTOR shall not close or obstruct walkways, passageways, or stairways and shall not store or place materials in passageways, stairs or other means of egress. The CONTRACTOR shall conduct operations with minimum traffic interference.
- J. The CONTRACTOR shall be responsible for any damage to the existing structure or contents by reason of the insufficiency of protection provided.
- K. The Contractor shall take the necessary precautions to prevent debris from entering any adjacent filer or any open pipe that may be exposed during demolition or construction to prevent contamination or damage to treatment equipment.

3.03 WORKMANSHIP

- A. The demolition and removal work shall be performed as described in the Contract Documents. The work required shall be done with care, and shall include all required shoring, bracing, etc.

DEMOLITION AND REMOVAL OF EXISTING STRUCTURES AND EQUIPMENT

01540-2

CAM 22-0100

Exhibit 1

Page 149 of 193

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

The CONTRACTOR shall be responsible for any damage which may be caused by demolition and removal work to any part or parts of existing structures or items designated for reuse or to remain.

The CONTRACTOR shall perform patching, restoration, and new work in accordance with applicable Technical Sections of the Specifications and in accordance with the details shown on the Drawings. Prior to starting of work, the CONTRACTOR shall provide a detailed description of methods and equipment to be used for each operation and the sequence thereof for review by the CITY.

- B. Superstructure wall and roof openings shall be closed, and damaged surfaces shall be patched to match the adjacent areas, as specified under applicable Sections of these Specifications, as shown on the Drawings, or as directed by the CITY. Wall sleeves and castings shall be plugged or blanked off, all openings in concrete shall be closed in a manner meeting the requirements of the appropriate Sections of these Specifications, as shown on the Drawings, and as directed and approved by the CITY.
- C. Wherever piping is to be removed for disposition, the piping shall be drained by the CONTRACTOR and adjacent pipe and headers that are to remain in service shall be blanked off or plugged and then anchored in an approved manner.
- D. The CONTRACTOR shall execute the work in a careful and orderly manner, with the least possible disturbance to the public and to the occupants of the building.
- E. Where alterations occur, or new and old work join, the CONTRACTOR shall cut, remove, patch, repair or refinish the adjacent surfaces to the extent required by the construction conditions, to leave the altered work in as good a condition as existed prior to the start of the work. The materials and workmanship employed in the alterations, unless otherwise shown on the Drawing or specified, shall comply with that of the various respective trades which normally perform the items or work.
- F. The CONTRACTOR shall finish adjacent existing surfaces to new work to match the specified finish for new work. The CONTRACTOR shall clean existing surfaces of dirt, grease, loose paint, etc., before refinishing.
- G. The CONTRACTOR shall cut out embedded anchorage and attachment items as required to properly provide for patching and repair of the respective finishes.

3.04 MAINTENANCE

- A. The CONTRACTOR shall maintain the buildings, structures, and public properties free from accumulations of waste, debris and rubbish, caused by the demolition and removal operations.
- B. The CONTRACTOR shall provide on-site dump containers for collection of waste materials, debris and rubbish, and he shall wet down dry materials to lay down and prevent blowing dust.
- C. At reasonable intervals during the progress of the demolition and removal work or as directed by the CITY, the CONTRACTOR shall clean the site and properties, and dispose of waste materials, debris and rubbish.

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 02668
DISINFECTION AND BACTERIOLOGICAL TESTING**

PART 1 - GENERAL

1.01 SCOPE

- A. The CONTRACTOR shall perform all disinfection, as specified herein and in accordance with the requirements of the Contract Documents, bacteriological testing shall be conducted by the City. Work shall include conveyance of test water from CITY designated source to point of use, including all disposal thereof.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Commercial Standards:

ANSI / AWWA B300 Hypochlorites
ANSI / AWWA B301 Liquid Chlorine
ANSI / AWWA C652 Disinfection of Water Storage Facilities
ANSI / AWWA / WEF Standard Methods for the Examination of Water and Wastewater

1.03 SUBMITTALS

- A. Shop Drawings: The CONTRACTOR shall submit plans, procedures, and schedules for disinfection and testing for review and concurrence of the CITY. The CONTRACTOR's proposed plans for water conveyance, control, disposal, and disinfection shall be submitted in writing for approval a minimum of three weeks before testing.
- B. Test Reports: The CONTRACTOR shall coordinate with the CITY to obtain copies of all CITY generated reports associated with the disinfection test results and the bacteriological test results. Submit copies of these reports for each filter in accordance with the Section entitled "Submittals". The Contractor shall not be allowed to initiate work in the next filter until this information is submitted to the CITY and the CITY has provided written authorization to proceed to a subsequent filter.

PART 2 - PRODUCTS

2.01 WATER SUPPLY

- A. The CITY shall provide reasonable quantities of water necessary for the testing and disinfection of all facilities associated with this Contract. The CONTRACTOR shall make all necessary provisions for conveying the water from the CITY's designated source to the points of use.

2.02 CHEMICAL

- A. The Contractor is responsible for all chemicals and chemical feed pumps required for disinfection.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

2.03 TEMPORARY MATERIALS AND EQUIPMENT

- A. Temporary valves, bulkheads, or other water control equipment and materials shall be as determined and provided by the CONTRACTOR.

PART 3 - EXECUTION

3.01 DISINFECTION OF FILTERS

- A. CONTRACTOR shall disinfect filters in accordance with ANSI/AWWA C653, unless herein modified after all work is completed and before the filter is placed in service.
- B. Scheduling Sequence for Filter Disinfection: Each filter under this contract shall be disinfected in accordance with the following sequence:
1. Complete all work at the out of service filter in accordance with the Contract Documents (except for the disinfection and bacteriological sampling and testing). Once the CONTRACTOR deems that they have completed all work within the filter, in accordance with the Contract Documents, the contractor shall request the CITY to make a Substantial Completion inspection for that filter.
 2. The CITY will inspect and issue a punch list.
 3. Once the punch list items have been signed off by the CITY as being satisfactorily addressed, the CITY will issue a Certificate of Partial Completion for the filter.
 4. Disinfection operations shall be scheduled by the CONTRACTOR as soon as possible after the contractor receives a Certificate of Partial Completion for the filter that is being rehabilitated.
 5. Disinfect the filter in accordance with this specification.
 6. Once the modified filter has been disinfected and successfully completes the bacteriological testing, and been approved by the CITY, it may be returned to service.
- C. Disinfection Procedure:
1. With all filter valves closed, the filter shall be filled with finished water pumped to the filter. The Contractor shall provide a temporary pump. The water level shall be maintained approximately 6 inches below the top of the filter box.
 2. Sufficient disinfectant (calcium hypochlorite or sodium hypochlorite) shall be added to the incoming water to achieve a level of 50 mg/L of free chlorine residual in the disinfecting water. This level of chlorine shall be maintained during the disinfection process.
 3. The disinfecting water shall be allowed to stand in the filter for a minimum of twenty-four (24) hours.
 4. The CITY will sample and test the free chlorine residual at the beginning and end of the test.
 5. After the disinfecting water has been retained for the required time, the chlorine residual in the filter shall be at least 25 ppm.
 6. If satisfactory chlorine residuals are obtained after the minimum retention period then the CITY shall operate the filter to remove the chlorinated water. Chlorinated water shall be discharged to the plant drain system via either filtering to waste or backwashing.
 7. If a satisfactory chlorine residual is not obtained, then the disinfection procedure shall be repeated.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

3.02 BACTERIOLOGICAL SAMPLING AND TESTING

- A. After successful completion of the disinfection procedure, the CITY will flush the filter of chlorinated water. After flushing, the CITY will fill the filter with finished water.
- B. The CITY will perform bacteriological sampling and testing of the filters. Bacteriological testing shall be performed by the CITY's testing laboratory at the expense of the CITY. Testing procedures and results of the bacteriological testing shall be satisfactory to the Broward County Health Department.
- C. Once the satisfactory bacteriological test results are received by the CITY, the CITY will give the CONTRACTOR written permission to initiate work in another filter.
- D. If results of the tests are not acceptable, the disinfection of the system shall be repeated until the bacteriological test is satisfactory to the Broward County Health Department.

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 13220
FILTER UNDERDRAIN****PART 1 — GENERAL****1.01 THE REQUIREMENT**

- A. The CONTRACTOR shall furnish, deliver, install, test and place in satisfactory operation the underdrain system for filters complete with all necessary accessories at the locations shown on the Drawings and as specified herein.
- B. All equipment and materials used in contact with the water shall meet NSF Standard 61.
- C. The CONTRACTOR shall be responsible for coordinating all equipment, materials and services required under this Contract for proper installation and operation of the filters rehabilitated. Coordination will be required during demolition, construction, start-up, and / or testing.
- D. It is the intent of this Specification is to obtain an installation complete in every necessary detail whether covered by the Specification. Any omission of required equipment from the Specification shall not relieve the manufacturer of his responsibility to satisfy this intent.
- E. The Filter Underdrain manufacturer recommends that the interior coating stop at the top of the underdrain elevation as the adhesion of the fill grout to the filter walls is an important part of the installation process. The CONTRACTOR shall coordinate with the underdrain manufacturer and the coating applicator to ensure that interior coating stop above the top elevation of the underdrain.

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. NSF Standard 61 – Drinking Water System Components – Health Effects.

1.03 SUBMITTALS

- A. The CONTRACTOR shall submit complete Shop Drawings, Factory Test Certificates, Testing and Startup Procedures, Affidavit of Proper Installation and Startup Reports in accordance with section entitled "Submittals".
- B. Shop Drawings: Required information shall include the following:
 - 1. Manufacturer's catalog information,
 - 2. Descriptive literature,
 - 3. Specifications,
 - 4. Materials of construction and supports,
 - 5. Headloss data water,
 - 6. Complete installation and adjustment instructions and recommendations,
 - 7. Flow distribution calculations,
 - 8. Certification of compatibility of the underdrain system with the filter media specified in Section 13222,
 - 9. NSF-61 certification of all underdrain components,
 - 10. Details for installing reinforcing and other items to be embedded in concrete.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

11. Shop drawings shall show all details of construction, dimensions, and location of endplates, bridging, anchorage and all other data which in the judgment of CITY is necessary to demonstrate conformance with all requirements of the Contract Documents.
12. Storage Instructions: Provide a copy of the manufacturer's storage instructions.
13. Resume of Technical Representative: Provide the resume of the Leopold technical representative who shall:
 - a. Perform the Installation Supervision and issue the Affidavit of Proper Installation.
 - b. Conduct the Performance Testing and issue the Startup Reports.
14. Warranty: Provide a sample warranty with the shop drawings,
15. Testing and Startup Procedures: Submit detailed hydraulic test and start-up procedures as obtained from the underdrain manufacturer.

- C. Factory Test Certificates: The CONTRACTOR shall submit certificate of factory tests and test results prior to delivery of underdrains. Prior to shipment from the factory, one (1) out of every 50 underdrain blocks shall be tested for headloss and uniform dispersion of water. A full-length lateral shall be tested in a test cell capable of isolating and physically measuring flow rate at 2-feet intervals. The results of the headloss and dispersion tests shall be within 10 percent of the manufacturer's published values. Certification shall include that the underdrain system has been designed to resist all loads specified, implied, and reasonably anticipated.
- D. Testing and Startup Procedures: The CONTRACTOR shall submit detailed hydraulic test and start-up procedures as obtained from the underdrain manufacturer.
- E. Affidavit of Proper Installation: The manufacturer's technical representative shall supervise the installation of the materials furnished under this section. For each filter the CONTRACTOR shall provide the CITY with a manufacturer's affidavit of proper installation upon completion of installation.
- F. Startup Reports: The manufacturer's technical representative shall supervise the startup of the materials furnished under this section. For each filter, the manufacturer's representative shall provide a report certifying that the material is properly started up in accordance with the manufacturer's recommendations.

1.04 RESPONSIBILITIES AND GUARANTEE

- A. The materials covered by these Specifications are intended to be standard equipment of proven reliability and as manufactured by reputable manufacturers having experience in the production of such equipment. The equipment furnished shall be designed, constructed, and installed in accordance with the best practices and methods and shall operate satisfactorily when installed as shown on the Drawings and operated per manufacturer's recommendations.
- B. The underdrain manufacturer shall guarantee to the CONTRACTOR and CITY compatibility of the underdrain system with the specified filter media and surface wash system. The underdrain manufacturer shall guarantee proper performance of the underdrain/media system with respect to influent and backwash flow distribution, short circuiting, proper cleaning of the media, plugging and related operational concerns.
- C. The underdrain manufacturer shall be fully responsible for the structural design and integrity of the underdrain system including all anchorage and connections. The underdrain manufacturer shall warrant the underdrain blocks for materials and workmanship for a period of two (2)

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

years after the completion of the project. A sample warranty shall be submitted with the Shop Drawings.

1.05 MANUFACTURER'S SERVICE REPRESENTATIVE

- A. The services of a qualified Leopold technical representative who shall supervise the CONTRACTOR's installation and testing of all equipment furnished under this contract and instruct the CITY's operating personnel in its maintenance and operation. The services of the manufacturer's representative shall be provided f as follows:
1. Installation Supervision: During the installation of the underdrain for the first filter, provide one (1) trip of three (3) days (8 hrs./day) to instruct and supervise the CONTRACTOR's personnel on the proper installation technique of the underdrain system.
 2. Inspection and Performance Testing: Provide one inspection/test trip for each filter. A total of five (5) trips at one (1) day (8 hrs./day) per trip shall be provided. During each trip provide the following services:
 - a. Acceptable Installation Inspection: After the grout has cured for a minimum of three (3) days the manufacturer's representative shall inspect the installation for the purpose of certifying that the underdrain system was installed in accordance with the manufacturer's instructions.
 - b. Notify the CITY of the results of the manufacturer's representative's inspection results prior to proceeding with the next steps.
 - c. Performance Testing: If the underdrain installation is acceptable by the manufacturer's representative, then:
 - 1) The representative shall complete an Affidavit of Proper Installation and submit it, through the CONTRACTOR, to the CITY.
 - 2) The performance testing can be initiated and completed.
 - 3) Conduct the performance testing in accordance with the manufacturer's Testing and Startup Procedures.
 - 4) Notify the CITY of the results of the performance testing.
 - 5) The manufacturer's representative, through the CONTRACTOR, shall provide a report certifying that the underdrain is properly started up in accordance with the manufacturer's recommendations.
 - d. Failed Installation Inspection If the underdrain installation is not acceptable by the manufacturer's representative, then:
 - 1) The representative shall complete a written report identifying the deficiencies found. Additionally, identify recommended corrective actions. Submit this report, through the CONTRACTOR, to the CITY.
 - 2) The performance test will be canceled.
 - 3) The CONTRACTOR shall take corrective actions and reschedule the Proper Installation Inspection and Performance Testing. Re-inspection and rescheduling of the associated performance testing shall be at no cost to the CITY.
 3. One (1) trip of one (1) day (8 hrs./day) to instructing the CITY's personnel in the proper operation and maintenance of the underdrain system.
- B. The times specified are exclusive of travel to and from the facility and shall not be construed as to relieve the manufacturer of any additional visits to provide sufficient service to place the equipment in satisfactory operation.
- C. Any additional time required to achieve successful installation shall be at the expense of the CONTRACTOR.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- D. Underdrain manufacturer's services shall be at such times as requested by the CONTRACTOR and the CITY.

1.06 MATERIAL DELIVERY, STORAGE, AND PROTECTION

- A. Place or store underdrains and specialties only in designated staging areas shown on the Drawings and approved by the CITY.
- B. Store underdrains and specialties off the ground, under ultraviolet-resistant tarps from time of delivery on-site until final installation of the filters. Follow manufacturer's storage instructions.
- C. Replace, at no charge to CITY, underdrains and specialties damaged during storage and delivery.
- D. Underdrains and specialties are subject to inspection at the CITY's request if visual evidence of damage is observed.

1.07 CLEANUP

- A. The CONTRACTOR shall take all precautions recommended by the underdrain manufacturer or specified herein to ensure that the filter underdrain system and any piping communicating therewith is completely clean and free of any debris, dirt, or other foreign materials which could clog the underdrain system or interfere with flow.
- B. Backwash water piping shall be thoroughly flushed clean. All loose debris and dirt within the filter bays and flume shall be removed by brooming down and vacuuming.
- C. Care shall be taken to keep grout from being deposited anywhere where it could interfere with flow. Any grout so deposited shall be removed.
- D. As installation progresses, the CONTRACTOR shall ensure partially completed portions of the Work is protected with heavy visqueen or other suitable material to maintain the cleanliness of the underdrain system. Such protection shall be maintained until the filter media is installed.
- E. Any time the underdrain laterals are to be used as a work surface, the underdrain block shall be overlaid with 1/2-inch minimum plywood sheeting where necessary to distribute the load of yard buckets, wheel barrows, ladders, scaffolds, etc., to prevent damage to the underdrain.
- F. Following installation of the underdrain system and grout curing, the system shall be completely cleaned and washed free of all loose materials and debris prior to placement of the filter media.

PART 2 — PRODUCTS**2.01 MANUFACTURERS**

- A. The underdrain blocks shall be Universal Type SL underdrain of the dual/parallel lateral type as manufactured by F.B. Leopold Company. NO SUBSTITUTION IS ALLOWED.

2.02 GENERAL

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- A. The filter underdrain system shall be designed and installed to ensure long-term stability in its operating characteristics. It shall be resistant to changes in head loss, flow uniformity, and any other effects that would in time cause loss of efficiency or effectiveness in its operation.
- B. The underdrain system shall be designed to allow for the uniform collection of filtered water and uniform distribution of backwash water over the total area of the filter floor.
- C. The system shall be designed to avoid localized areas of excessive flow (maldistribution) that may cause mounding, lateral displacement, or other deleterious disturbances in the filter media.
- D. To ensure the underdrain will control distribution (limit maldistribution) and not be over-powered by the media headloss, the minimum headloss through the orifices (primary and secondary) of an individual underdrain block shall not be less than a 20-inch water column at a backwash flow rate of 20 gpm/sf of filter area when the water temperature is approximately 60°F.

2.03 PERFORMANCE AND DESIGN REQUIREMENTS

- A. Design Flow Rates: The filter underdrain system shall be furnished and installed to perform satisfactorily and as specified when operated under the following conditions:
 - 1. Downflow of filtered water up to 10 gpm/sf.
 - 2. Up flow of backwash water up to 25 gpm/sf.
- B. Flow Distribution: The filter underdrain system, as installed, shall provide acceptable flow uniformity. Maldistribution of water flows during backwash in a lateral 16-feet long or less shall not exceed +/- 2 percent of the average gpm/sf of filter for a backwash rate of 20 gpm/sf. This shall include maldistribution, due to specific flume arrangement, entry conditions into both flume and underdrain laterals and flow velocities.
- C. Structural Design Requirement: The filter underdrain system shall be furnished and installed to perform satisfactorily and as specified under the following conditions:
 - 1. The filter underdrain system, including anchorage and supports shall be designed to safely withstand loadings for the specified conditions.
 - 2. The filter underdrain system, when installed, shall be designed for a net internal loading during backwash of the greater of either 600 psf or 200 percent of the maximum pressure at maximum backwash rates. No credit shall be taken for the weight of gravel or filter media.
 - 3. The filter underdrain system shall also be designed to withstand a net downward loading of not less than 1,400 psf.

2.04 UNDERDRAIN BLOCKS

- A. The individual underdrain blocks shall be of impervious high strength, completely corrosion-resistant, high-density polyethylene (HDPE) material. The blocks shall be resistant to erosion and corrosion and have uniform smooth surfaces. The blocks shall be essentially rectangular in shape with dispersion orifices located in the top flat surface.
- B. The blocks shall have ridges and pockets for structural rigidity. The sides of the block shall have grout lock-in lugs to key into surrounding grout so that the walls can bond with the grout. The block size and weight shall permit ease of handling and installation.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- C. The block nominal dimensions for Type SL shall be 8-inches high by 11-inches wide by 48-inches long. The weight of the block shall be approximately 19 pounds.
- D. The underdrain system for the filters shall be a dual parallel lateral type of whereby feeder and compensating chambers are provided within the cross section of a single block. The cross section of the underdrain shall be so arranged that the feeder (or primary) chamber is adjacent and connected to the compensating (or secondary) chambers through a series of orifices. The orifices shall be located at four different elevations and sized to provide uniform distribution of water. All internal orifices shall be integrally molded to provide a smooth bore orifice. Underdrains requiring secondary drilling procedures will not be considered acceptable. The primary chamber should provide at least 30 square inches of cross-sectional area per block to reduce flow velocity during backwash.
- E. The compensating chambers shall provide the essential uniform pressure and flow distribution from the top of the blocks. The discharge flow from the top of the blocks into the filter bed shall be provided by approximately twenty-three dispersion orifices per square foot of filter area. The orifices shall be not less than 7/32 inches diameter to prevent clogging and shall be recessed from the surface by approximately 1/8 inch. The top of each orifice shall be encircled by a depression approximately 3/8-inch x 3/4 inch, which shall act to prevent the gravel support media from resting directly on and thereby blocking the dispersion orifice.
- F. The underdrain shall have a horizontal flat top discharge surface, so that the finished filter bottom is essentially flat, with above stated dispersion orifices for uniform energy intensity of water coverage that direct flow vertically for effective penetration and cleaning of the media.
- G. The dual-parallel block units with integral flow metering elements and any specialties required for installation such as special anchorage, grout retaining strips, closures, gaskets shall be the products of a single manufacturer/supplier.

2.05 GROUT RETAINER

- A. Grout retaining strips for bridging flume blocks shall be of high-impact polystyrene properly keyed to fit the underdrain blocks to allow adjustment of lateral center-to-center distance without difficulty. Retaining strips shall be supplied by the filter underdrain manufacturer.

2.06 GROUT

- A. The grout used in installing the underdrain blocks shall have a minimum compressive strength of 2500 psi after 30 days of curing. Use a grout with one part Portland cement and two parts clean silica sand properly mixed and wetted with a maximum water-cement ratio by weight equal to 0.50 to 0.55 for the base grout and 0.61 to 0.67 for the fill grout.
- B. Cement shall be standard brand Portland cement conforming to ASTM C150, Type II, for general use. Cement that has become "lumpy" shall not be used. Do not use non-shrink grout.
- C. Water for mixing and curing shall be clean and clear potable water. Potable water for mixing and curing shall be supplied by the CITY at no cost to the CONTRACTOR.
- D. Sand shall be clean and washed masonry sand. When tested in accordance with ASTM D2419, the sand equivalency shall not be less than 90% for an average of three samples, or less than 85% for any individual sample. 100% of sand particles shall pass No. 4 sieve and not more than 4% of sand particles shall pass No. 200 sieve.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

PART 3 — EXECUTION**3.01 INSTALLATION**

- A. The CONTRACTOR shall install the filter underdrain system in strict accordance with the manufacturer's written instructions and recommendations including the manufacturer's installation drawings, written directions provided by the manufacturer's technical representative who is supervising and observing the Work and any additional requirements specified herein. A manufacturer's representative shall be on site to supervise the underdrain installation for each filter.
- B. The CONTRACTOR shall exercise caution in preparing the filter floor slab and in setting the anchors to assure proper alignment and elevation. Steel anchor rods shall be furnished by the filter underdrain manufacturer and set in the floor slab on both sides of the distribution flume in accordance with the accepted Shop Drawings.
- C. The Underdrain manufacturer requires a "rough" floor finish to aid in the base grout adhesion to the filter floor slab. Depending on the condition of the filter floor once the existing underdrains are removed, the floor may require roughening to provide a 1/8-inch profile. Coordinate with underdrain manufacturer to determine the requirements for a suitable filter floor finish.
- D. The underdrain laterals shall be set in level rows on a bed of fresh grout over the filter floor slab. Plates for closing the ends of each row of blocks shall be furnished by the filter manufacturer and installed by the CONTRACTOR. After all blocks have been set and carefully aligned, setting the blocks, and the bed of grout is set-up, as soon as possible, grout all spaces between rows and end of blocks and walls so that the entire bed is totally sealed and held firmly in place. Prevent any grout from entering laterals and orifices.
- E. Allow grout to cure for at least 3 full days before filter media is placed or any functional tests are performed.
- F. The blocks shall be arranged end-to-end and mechanically joined to form continuous underdrain laterals approximately equivalent to the length of the filter bay. The joints shall be sealed utilizing one (1) O-Ring seal, bell and spigot type with internal alignment tabs for proper joint alignment and be water-tight. Joints shall be of snap-lock type so that the blocks are joined with integral interlocking snap lugs and lug receptors for ease of assembly and installation of the laterals.

3.02 PERFORMANCE TESTING

- A. The filter underdrain system in each filter bay shall be given a series of visual, qualitative, flow distribution tests to verify that orifices are not clogged with debris and that flow distribution is uniform. These tests shall be performed before the filter media is placed.
- B. During each test, the underdrain laterals shall be visually inspected for uniform distribution of water and for any signs of quiescent zones and excessive surface turbulence as outlined by the manufacturer's testing procedures.
- C. Working under the direction of the manufacturer and in the presence of the CITY's designated representative; the CONTRACTOR shall conduct underdrain start-up as outlined in the manufacturer's suggested start-up procedure.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- D. Following installation of the blocks and prior to the placing of the filter media, independent water backwash tests shall be performed on the completed system. The CONTRACTOR shall notify water plant operations personnel and/or the CITY's representative when the filter is ready for backwashing. All backwashing operations shall be conducted by the water plant staff.
- E. Following completion of the manufacturer's suggested underdrain start-up procedure and prior to placement of the media, conduct separate hydraulic tests using rates specified in Article 2.03 under performance requirements for verification of proper underdrain installation.
- F. Check for and correct leaks and non-uniform flow of backwash water, structural instability, or other defects.
- G. If correction of defects is required, retest independently as necessary until results are acceptable and at no additional cost to the CITY.
- H. All water used during underdrain system testing shall be directed to the washwater drain pipe or filter to waste pipe. None of this water should be directed to the filter effluent header pipe to the existing clearwell.
- I. The CONTRACTOR shall notify the CITY at least seven (7) days prior to any testing to enable the CITY to witness the tests.
- J. All labor, power, equipment and incidentals required for the performance tests shall be furnished by the CONTRACTOR. The CITY will provide specified laboratory testing and water at no cost to the CONTRACTOR.

- END OF SECTION -

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

**SECTION 13222
FILTER MEDIA AND GRAVEL****PART 1 -- GENERAL****1.01 THE REQUIREMENT**

- A. The CONTRACTOR shall provide all labor, materials, equipment, and supervision required to furnish and install the filter material (gravel, sand and anthracite) as shown on the Contract Drawings and as specified herein. This includes removal and off-site disposal of the existing filter material.
- B. No more than one filter shall be out of service at any given time.
- C. All equipment and materials used in contact with water shall be certified as being in conformance with NSF Standard 61.
- D. The materials covered by this specification are intended to be standard materials of proven performance as manufactured by reputable concerns.
- E. Filter media (i.e., gravel, sand and anthracite) and filter media testing methods shall conform to the requirements of ANSI/AWWA B100 - Granular Filter Material, except as otherwise indicated

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. NSF Standard 61 – Drinking Water System Components – Health Effects.
- B. ANSI/AWWA B100 - Granular Filter Material.
- C. ASTM E11 – Standard Specification for Wire Cloth and Sieves for Testing Size.
- D. ANSI/AWWA C653 – Disinfection of Water Treatment Plants.

1.03 SUBMITTALS

- A. The CONTRACTOR shall furnish complete shop drawings for materials and Work incorporating all information and data listed herein and required to evaluate the filter material's compliance with the Contract Documents in accordance with Section 01300 – Submittals.
- B. Shop Drawings: The CONTRACTOR shall submit a media and gravel submittal including technical information approved by a licensed CITY regularly employed by the filter media supplier. The CITY shall have at least 15 years experience in water treatment. Data to be submitted shall include, but not limited to the following:
 - 1. Supplier's Name.
 - 2. Certification of compatibility of the underdrain system with the filter media specified.
 - 3. Samples of each media type.
 - 4. Material quantities.
 - 5. Shipping Schedule.
 - 6. Diagram with type of material and depth of each.
 - 7. Supplier's Recommended Storage procedures.
 - 8. Supplier's Recommended Media Installation, Washing, Scraping and Startup Procedures.The procedures shall include written instructions regarding backwash rates to reach

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

fluidization and installation procedures for placing the media and washing and scraping operations.

C. Independent Testing Laboratory Report: Submit the following with the Shop Drawings:

1. Suppliers of the filter media shall retain an independent testing laboratory to show that the materials they intend to furnish conform to the requirements this specification.
2. Submit an independent testing laboratory report before shipment. The independent testing laboratory report must be accepted by the CITY prior to shipment.
3. Sampling, testing and reporting of results by the independent testing laboratory shall be in accordance with the latest revision of AWWA B100.
4. Tests shall include the following (as applicable for each material to be furnished):
 - a. Sieve Analysis
 - b. Effective Size
 - c. Uniformity Coefficient
 - d. Specific Gravity
 - e. Mohs' scale of hardness
 - f. Acid Solubility
5. Affidavit of Compliance: The test report shall include an affidavit signed and sealed by a Florida Licensed CITY certifying that the material to be furnished complies with applicable provisions of AWWA B100 (latest revision) and the requirements of this specification.

D. CITY's Samples: The independent testing laboratory shall obtain samples of each type of materials to be furnished in accordance with applicable provisions of AWWA B100 (latest revision). These samples shall be delivered to the CITY with the Shop Drawings. The CITY may, at its option, test samples in accordance with procedures specified in ANSI/AWWA B100. The samples shall be not less than 5 pounds of each type of material to be furnished.

E. Written Notifications: For each filter, the CONTRACTOR shall notify the CITY at least 48 hours prior to washing filter media to enable the CITY to be present.

F. Installation and Startup Reports: The manufacturer's technical representative shall supervise the installation, washing, scraping and startup of the materials furnished under this section. For each filter, the manufacturer's representative shall provide a report certifying that the material is properly installed, washed and started up in accordance with the manufacturer's recommendations.

1.04 MANUFACTURER'S SERVICE REPRESENTATIVE

A. For each filter, provide the services of the manufacturer's service representative as follows:

1. One (1) trip of one (1) day to supervise the filter media installation.
2. One (1) trip of one (1) day to supervise initial start-up and operation.

B. The times specified are exclusive of travel to and from the facility and shall not be construed as to relieve the filter supplier of any additional visits to provide sufficient service to place the equipment in satisfactory operation.

C. Any additional time required to achieve successful installation and startup shall be at the expense of the CONTRACTOR.

1.05 MATERIAL DELIVERY, STORAGE, AND PROTECTION

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- A. Filter material will be shipped in bags or semi-bulk containers in accordance with ANSI/AWWA B100. Delivery of "bulk" shipments will not be permitted. Semi-bulk containers shall have lifting sleeves and bottom discharge spout and contain approximately 2,000 to 4,000 pounds per sack.
- B. Special care shall be taken in transporting and placing the filter materials to avoid contamination with dirt or organic matter. Any filter material which has become dirty, either before or after it has been placed in the filters, shall be either washed or removed and replaced by clean material at no additional cost to the CITY. All material which has been contaminated by organic matter will be rejected and replaced at no additional cost to the CITY.
- C. The proper storage of all materials shall be the responsibility of the CONTRACTOR. The CITY assumes no responsibility for materials which are not properly protected from the weather by the CONTRACTOR. Paper bags (if used) shall be always protected from moisture.
- D. As shown on the Drawings, a temporary storage area will be made available. The Contractor shall be responsible for providing the appropriate equipment to unload the materials. Deliveries will only be accepted Monday through Friday between the hours of 7:30 AM – 3:00 PM. No exceptions can be allowed.
- E. All CONTRACTOR personnel and delivery personnel will have to sign in and out every day with the guard at the facility's entrance gate. The contractor's representative must vouch for each employee and delivery personnel every day. All persons entering the site will be required to present a picture identification and sign in with the security guard upon entering the water plant.

PART 2 – PRODUCTS**2.01 MANUFACTURERS**

- A. Only suppliers who regularly furnish gravel, sand and anthracite filtration media for the municipal water treatment industry will be considered for approval. The Contractor shall provide evidence to the CITY that the manufacturer has a minimum of five (5) years experience, within the last seven (7) years, in the design, manufacture, and supervision of installation of filter media of the types required under this Specification.
- B. The following manufacturers are approved for anthracite and gravel:
 - 1. Anthra Filter, Inc.
 - 2. F.B. Leopold Company, Inc.
 - 3. Roberts Water Technologies, Inc.
 - 4. Unifilt Corporation
 - 5. Or approved equal
- C. The following manufacturers are approved for silica sand:
 - 1. Standard Silica and Sand, Florida
 - 2. F.B. Leopold Company, Inc.
 - 3. Roberts Water Technologies, Inc.
 - 4. Unifilt Corporation
 - 5. Or approved equal

2.02 FILTER MEDIA AND SUPPORT GRAVEL

- A. Support Gravel:
 - 1. Support Gravel – shall consist of clean, hard, durable, rounded particles of high specific gravity, free from thin, flat particles, and in conformance with AWWA B100. Material shall be subject to test as provided under ASTM C-131 and modified herein. Abrasion under said test should be not more than 11% at 100 revolutions or more than 45% at 500 revolutions.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

Gradation: Support gravel gradation depths and gradations shall be as shown on the Contract Drawings.

2. Depth: Support gravel depth as shown in the Contract Drawings after all necessary washing and scraping and removal of fines has been completed.

3. Skimming Allowance: 1-inch.

B. Filter Sand:

1. Filter Sand – The sand shall be composed of hard, durable, clean and uniformly spherical particles, and free of all mica in conformance with AWWA B100.
2. Depth after washing and scraping: As identified on the Drawings
3. Skimming Allowance: 1-inch
4. Effective size (mm) 0.40 to 0.50
5. Uniformity coefficient 1.50 or less
6. Specific gravity 2.6 ± 0.05

C. Filter Anthracite:

1. Filter Anthracite - The anthracite shall be composed of hard and durable grains and shall be processed from anthracite coal. The material shall be in compliance with AWWA B100. Blending of non-anthracite material to meet any portion of the requirements is not acceptable. The anthracite shall be visibly free of iron sulfides, clay, shale, dust or other foreign matter.
2. Depth after washing and scraping: As identified on the Drawings
3. Skimming Allowance: 1-inch
4. Effective size (mm) 0.95 to 1.05
5. Uniformity coefficient 1.40 or less
6. Specific gravity 1.60 or more
7. Hardness (MOH) scale 3.00 or more

PART 3 – EXECUTION

3.01 GENERAL

- A. The underdrain system shall be inspected by the CITY and tested by the CITY and all deficiencies repaired before the commencement of filter material placement.
- B. Installation of materials provided under this Specification shall be in accordance with the manufacturer's recommendations and the approved shop drawings.
- C. Installation and the preparation of the filter for service shall be in accordance with the latest revision of AWWA B100-01 unless specifically noted otherwise herein.
- D. Media shall be placed in the filters manually from bags or semi-bulk containers. Media shall not be discharged from the operating level (i.e., the walkway level) as it may damage the media and the underdrains.
- E. The Contractor shall exercise caution in installing media to avoid damage to the filter underdrain system. Any damage resulting from work by the Contractor shall be repaired at the Contractor's expense.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- F. The Contractor shall take measures to control dust during installation. If the filter media is bagged or in semi-bulk containers, the media shall be wetted to control dust as it is placed.
- G. The bottom layer shall be placed carefully by hand to avoid damage to the underdrain system and to ensure a free passage of water from the orifices.
- H. Complete the installation of each layer before the next layer above is started.
- I. Workers shall not stand or walk directly upon the media. Workers shall stand upon boards or staging so that the weight of the workers will not displace the media.
- J. Do not support any staging equipment or personnel from the filter washwater troughs at any time.
- K. Information for Backwash Pump No. 3:

1. Maximum Flow Capacity:	12 million gallons per day
2. Maximum Flow Capacity:	8,400 gallons per minute
3. Low Flow Backwash Pump Rate:	7.5 million gallons per day
4. Low Flow Backwash Pump Rate:	5,250 gallons per minute
5. Surface Area of a Filter Cell:	11'-8" x 30'-0" = 350 square feet
6. Maximum Backwash Rate of a Filter Cell:	24 gpm/ft ²
7. Low Backwash Rate of a Filter Cell:	15 gpm/ft ²

3.02 FILTER MEDIA INSTALLATION

- A. Clean the underdrain and filter box prior to initiating placement of the filter media. The Contractor shall take all necessary precautions, recommended by the CITY, to ensure that the underdrain system is completely clean and free of debris, dirt, or other foreign materials which could clog the underdrain system or interfere with flow. The filter box shall be thoroughly cleaned by brooming, vacuuming and water flushing.
- B. Marks shall be placed on the inside of the filter designating the top elevation of each layer before any media is placed.
- C. In placing each layer of gravel, sand and anthracite, extreme care shall be taken to avoid disturbing the integrity of the previous layer.
- D. The water plant staff shall operate the filters during the performance of the washing operations. All scraping and media additions to filter media shall be conducted by the CONTRACTOR. The CONTRACTOR shall remove all filter media scrapings from the site in accordance with applicable federal, state, and local regulations.
- E. Gravel: Place the gravel carefully in accordance with the supplier's written Media Loading Procedure. When shipped in bags, filter media may be placed by carefully distributing material directly from the bags.
- F. Checking the Gravel Elevation: Each gravel layer shall be leveled by hand. After leveling check the gravel elevation. The elevation of the top surface of each gravel gradation layer shall be checked by filling the filter with water to the level line previously marked on the inside of the filter. The gravel shall be within 0.5+/- inches of the water surface. The area of the material above the water surface and below the water surface shall be within 10 percent of each other.

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

- G. Washing the Gravel Layer: After all the gravel is placed and leveled it shall be washed prior to the placement of the sand. The CITY will operate the filter to wash the gravel. Follow the media suppliers written Media Loading Procedure and the following:
1. Wash each side of the filter, one at a time.
 2. Operate the filter in manual mode.
 3. Fill the filter with water using the backwash supply. Extreme care shall be employed to ensure a slow removal of all entrained air from the filter bed (and possibly the backwash header) prior to increasing the backwash rate to maximum.
 4. Start the backwash at an initial rate of not more than 2 gpm/ft² of filter area. This amounts to 1 MGD from the backwash pump.
 5. Slowly ramp up the backwash rate, over about a 30-minute period, until the backwash pump is pumping 7.5 MGD. Once the air has been removed from the filter bed (and the backwash header piping), the backwash rate can then be increased.
 6. Operate the backwash pump at 7.5MGD (i.e., equivalent to a backwash rate of 15 gpm/ft²).
 7. Over five minutes slowly ramp up the backwash pump from 7.5 MGD to 12.0 MGD (i.e., equivalent to a backwash rate of 15 gpm/ft²).
 8. Wash the gravel bed at the maximum available backwash rate, not to exceed 12.0 MGD, for five (5) minutes.
 9. Replace disturbed gravel with clean material of the proper size and type to obtain the required depth.
 10. Upon completion of washing one side of the filter, wash the other side following the above procedure.
- H. Sand: Filter sand shall be installed in a uniform thickness with the top surface brought to a true level plane. Place the sand carefully in accordance with the supplier's written Media Loading Procedure. When shipped in bags, filter media may be placed by scattering material directly from the bags.
- I. Checking the Sand Elevation: The elevation of the top surface of each filter media layer shall be checked by filling the filter with water to the level line previously marked on the inside of the filter.
- J. Washing the Sand Layer: After the sand has been placed, the media shall be washed and scraped or skimmed to remove excess fine material. The CITY shall operate the filter during washing in accordance with the procedures recommended in the media supplier's written Media Loading Procedure and the following:
1. Wash water shall be slowly admitted upward through the underdrain system until the entire bed is flooded.
 2. The bed shall be allowed to stand for as long a period as deemed necessary before the initial wash.
 3. The wash rate shall be increased gradually during the initial wash to remove air from the bed.
 4. During each backwash, the water shall be applied at an initial rate of not more than 2 gpm/ft² of filter area. This amounts to 1 MGD from the backwash pump.
 5. The backwash rate shall then be increased gradually over a period of 3 minutes to the rate that achieves fluidization. THE FILTER MEDIA SUPPLIER SHALL DEFINE THIS RATE IN THEIR RECOMMENDED TESTING AND STARTUP PROCEDURES SUBMITTAL. The filter bed shall be backwashed for a total period of not less than 30 minutes in order to stratify the bed and to wash out dirt. This process will require several separate backwashes, but not less than 3 backwashes at 10 minutes each at an expansion of not less than 30 percent followed by a slow closing of the wash water valve.
 6. Following each backwash, the top layer of media shall be removed such that after the last backwash a total of 1-inch of media shall be removed and discarded, and the final surface

FIVEASH WATER TREATMENT PLANT FILTER REHABILITATION

PROJECT 12485 PHASE 2

leveled. The depth of media, as specified herein, shall be measured in place after backwashing.

- K. Anthracite: After the sand has been placed, leveled, washed, and scraped, the anthracite shall be placed, leveled, and scraped in a manner similar to that described above for the sand.

3.03 DISINFECTION

- A Prior to placing the filter units in service provide all labor and materials required to disinfect each filter bed in accordance with the requirements of Section 02668.

3.04 PROTECTION OF ADJACENT FILTERS

- A Provide all means necessary to protect adjacent filters from any and all construction debris entering into operating filters.

- END OF SECTION -

SECTION 15100 -VALVES AND APPURTENANCES

PART 1 -- GENERAL

1.01 SCOPE

- A. Furnish and install, all valves complete with accessories, and special equipment as shown on the Drawings and specified herein.

1.02 GENERAL INFORMATION AND DESCRIPTION

- A. The equipment covered by these specifications is intended to be standard equipment of proven performance as manufacturer by reputable concerns. Equipment shall be designed, constructed and installed in accordance with the best practice of the trade, and shall operate satisfactorily when installed as shown on the Drawings.

1.03 SUBMITTALS

- A. Each submittal shall be complete in all aspects incorporating all information and data listed herein and all additional information required to evaluate the proposed valve's or hydrant's compliance with the Documents. Partial or incomplete submissions shall be returned to the CONTRACTOR disapproved without review.
- B. Data to be submitted shall include but not be limited to:
 - 1. Catalog Data consisting of specifications, illustrations and a parts schedule that identifies the materials to be used for the various parts and accessories. The illustrations shall be in sufficient detail to serve as a guide for assembly and disassembly.
 - 2. Complete assembly, and installation drawings with clearly marked dimensions. This information shall be in sufficient detail to serve as a guide for assembly and disassembly and for ordering parts.
 - 3. Weight of all component parts and assembled weight.
 - 4. Design calculations.
 - 5. Listing of all lubricants required for the equipment with a minimum of two equivalent and compatible natural and/or synthetic lubricants produced by different manufacturers. The listing shall include the estimated quality of lubricant required for one year of operation.
 - 6. Sample data sheet of equipment nameplate(s) including information contained thereon.
 - 7. Spare parts list.
 - 8. Special tools list.

- C. Valve Labeling: The CONTRACTOR shall coordinate valve labeling text with the OWNER and the OWNER's valve and equipment tagging scheme. The CONTRACTOR shall submit a schedule of valves to be labeled indicating in each case the valve location and the proposed wording for the label.
- D. The CONTRACTOR shall obtain from the manufacturer and submit to the ENGINEER copies of the results of all certified shop tests.
- E. The CONTRACTOR shall obtain from the manufacturer and submit to the ENGINEER copies of certified letters of compliance in accordance with the General Conditions and Division 1.

1.04 OPERATION AND MAINTENANCE MANUALS

- A. The CONTRACTOR shall submit operation and maintenance manual in accordance the procedures and requirements set forth in the General Conditions and Division 1.

1.05 TOOLS, SUPPLIES AND SPARE PARTS

- A. Special tools shall be provided as necessary to adjust, service, repair, assemble and disassemble the equipment.
- B. The CONTRACTOR shall furnish all supplies and spare parts as recommended by the equipment manufacturer.
- C. The CONTRACTOR shall furnish two portable electric valve turning machines for use with manually operated valves where shown on the drawings. Valve turning machines shall be Pow-R-Drive II as manufactured by E.H. Wachs, Company. Power supply shall be 110 VAC. Torque setting shall be adjustable between 0 and 800 ft/lbs with torque indicator gauge. Each valve turning machine shall be furnished complete with the following accessories:
 - 1. Storage case.
 - 2. Torque arm extension for two-person operation.
 - 3. 8 ft valve key.
 - 4. 4 ft valve key.
 - 5. 2-inch square AWWA socket.
 - 6. 15/16-inch drive socket.
 - 7. Stop collar.

PART 2 -- PRODUCTS

2.01 GENERAL

- A. The valves, and accessories shall be in the quantity, quality, types and sizes as indicated on the Drawings and specified herein.
- B. All valves shall have a minimum design pressure rating of 150 psi and capable of a test pressure of 300 psi. For service applications with pressures in excess of 150 psi, valves shall have a minimum pressure rating in excess of the service application working pressure. All above grade, interior valves with a nominal pipe size of 3 inches and larger shall have flanged ends unless otherwise noted. All above grade, interior valves less than 3 inch size shall be threaded ends. Buried service valves shall have mechanical joint pipe ends. Buried service valves shall be provided with AWWA operating nuts, extension stems and cast iron valve boxes. Extended valve stems, stem guides and operating nuts shall be provided as indicated or required.
- C. All valves of one type shall be the product of one manufacturer.
- D. Cast iron parts of valves shall meet the requirements of ASTM Designation A126, "Standard Specifications for Gray Iron Castings for Valves, Flanges and Pipe Fittings, Class 'B'". Flanged ends shall be flat-faced and have bolt circle and bolt patterns conforming to ANSI B16.1 Class 125 unless otherwise specified hereinafter. All castings shall be clean and sound, without defects of any kind and no plugging, welding or repairing of defects will be permitted. All bolt heads and nuts shall be hexagonal conforming to ANSI B18.2. Gaskets shall be full face and made of natural or synthetic elastomers in conformance with ANSI B16.21 suitable for the service characteristics especially chemical compatibility and temperature. Nonferrous alloys of various types shall be used for parts of valves as specified. Where no definite specification is given, the material shall be the recognized acceptable standard for that particular application.
- E. All valves shall have applied to them the same coatings as the adjacent piping.
- F. All valves which are dead ends for active pipelines shall be provided with blind flanges or plugs to prevent leakage.
- G. Raised face flanges in conformance with ANSI B16.5 class 150 will not be acceptable. All raised faces shall be milled flat.
- H. Valve Labeling: A label shall be provided on all shut-off valves exclusive of hose bibbs and chlorine cylinder valves. The label shall be of 1/16-inch stainless steel, minimum 2 inches by 4 inches in size, and shall be permanently attached to the valve or on the wall adjacent to the valve or as indicated by the ENGINEER. The CONTRACTOR shall coordinate valve labeling with the OWNER and the OWNER's valve and equipment tagging scheme.

2.02 VALVE OPERATORS

- A. General:

1. Valves and gates shall be furnished with operators, provided by the valve or gate manufacturer. All operators of a given type shall be furnished by the same manufacturer. All valve operators, regardless of type, shall be installed, adjusted, and tested by the valve manufacturer at the manufacturing plant. Operator orientation shall be verified with the ENGINEER prior to installation. If this requirement is not met, changes to orientation shall be made at no additional cost.
2. All operators, unless otherwise specified, shall turn counter- clockwise to open. Operators shall have the open direction clearly and permanently marked. All valve operators, manual, motor and pneumatic, shall be provided with the valve by the valve manufacturer. The CONTRACTOR, through the valve manufacturer, shall be solely responsible for the selection of the proper operator to meet the operating conditions specified herein. Field calibration and testing of the operators and valves to ensure a proper installation and an operating system shall be the responsibility of the CONTRACTOR.
3. All buried valves and other valves located below the concrete operating deck or level, specified or noted to be key operated, shall have an operator to finish grade or deck level, a 2-inch square AWWA operating nut, and cover or box and cover, as may be required.

B. Manual Operators:

1. All manual operators shall have levers or handwheels, unless otherwise shown. Where buried, the valves shall have extensions with square nuts or floor stands as indicated on the Drawings. In addition, shear pins shall be provided at the connection of the extension stem and the valve operator and at the operating nut and the extension stem. Valves mounted higher than 6 feet above floor or operating level shall have chain operators with chain terminating 4 feet above operating level. Unless otherwise shown or specified, valves of sizes 4-inch and larger shall have gear-assisted operators.
2. Operation of valves and gates shall be designed so that the effort required to operate the handwheel, lever or chain shall not exceed 40 pounds applied at the extremity of the wheel or lever. The handwheels on valves 14 inches and smaller shall not be less than 8 inches in diameter, and on valves larger than 14 inches the handwheel shall not be less than 12 inches in diameter.
3. Chainwheel operator shall be fabricated of malleable iron and pocketed type chainwheels with chain guards and guides. Chainwheel operators shall be marked with an arrow and the word "open" indicating direction to open. The operators shall have galvanized smooth welded link type chain. Chain that is crimped or has links with exposed ends shall not be acceptable.

C. Electric Operators

1. See Section 15101 entitled "Electric Operators".

2.03 FLOOR STANDS

- A. Floor stands shall be cast iron, non-rising stem type with lockable hand wheel operator, valve position indicator and steel extension stem. Hand wheel shall be lockable in the full closed position. The floor stand shall be furnished with an armored padlock and six keys. Lock shall be as manufactured by Master, Schlage or equal. Floor stand shall be standard pattern type as manufactured by Clow Corporation, or equal.

2.04 VALVE BOXES AND COVERS

- A. All buried valves shall be provided with cast-iron valve boxes unless otherwise indicated. The boxes shall be asphalt varnished, or enameled cast iron, adjustable to grade, and installed perpendicularly, centered around and covering the upper portions of the valve or valve operator, or the pipe. The top of each valve box shall be placed flush with finish grade unless otherwise indicated on the Drawings.
- B. Valve box and cover assemblies shall be the adjustable slide type with round bases fabricated of asphalt coated cast iron and designed to withstand heavy traffic loads. They shall be model No. F2450 by Clow Corporation or equivalent models by Mueller or equal. base shall be Clow's Model No. F-2480 for four inches and smaller, Model F-2465 for six inches and eight inches, Model F-2484 for ten inches and larger. The cover shall be Clow's Model F-2494.
- C. Extension sleeves, Clow model No. F2475, shall be provided as required.
- D. The covers shall be marked "WATER", "SEWER" or "DRAIN" and shall have a bell end sufficiently large to fit over the stuffing box of the valve.
- E. Valves shall be provided with extension stems to bring the operating nut within eighteen to twenty-four inches of the finished grade.
- F. Two operating "T" wrenches suitable for use with the AWWA operating nut shall be provided.
- G. For corporation and curb stops, valve boxes and covers shall be furnished in cast iron with:
 - 1. Stationary rod and guide ring.
 - 2. Arch pattern base.
 - 3. Extension sections as required.
 - 4. Cover.

2.05 OPERATOR EXTENSIONS

- A. Valve shall be supplied with extension stems, extension bonnets, floor stands, and/or torque tubes as indicated on the Drawings.

- B. Support brackets to restrict the bending of extension bonnets and extension stems shall be designed by the manufacturer as required for the application to suit field condition and the length of the extension stems and extension bonnets.
- C. Materials: Extension stems, extension bonnets, torque tubes and support brackets shall be fabricated of 316 stainless steel.

PART 3 -- EXECUTION

3.01 INSTALLATION

- A. The procedures regarding unloading, inspection, storage and where applicable installation, described in the Appendix of AWWA C500 entitled "Installation, Operation and Maintenance of Gate Valves" shall be used for all valves.
- B. All valves shall be manually opened and closed before installation to check their operation, and the interior of the valves shall be cleaned. Valves shall be placed in the positions shown on the Drawings. Joints shall be made as directed under the piping specifications.
- C. Access: All valves shall be installed to provide easy access for operation, removal, and maintenance and to avoid conflicts between valve operators and structural members or handrails.
- D. Valve Accessories: Where combinations of valves, sensors, switches, and controls are specified or shown on the Drawings, it shall be the responsibility of the CONTRACTOR to properly assemble and install these various items so that all systems are compatible and operating properly. The relationship between interrelated items shall be clearly noted on shop drawing submittals.

3.02 VALVE SUPPORTS

- A. Valves shall be supported as integral components of the piping systems.
- B. All horizontally mounted valve operators, manual, pneumatic or electric, whose weight exceeds 25 pounds shall be supported independently of the valve and piping system.
- C. All vertically mounted valve operators, manual, pneumatic or electric, whose weight exceeds 100 pounds shall be supported independently of the valve and piping system.
- D. Valve supports shall anchor the valves against an unbalanced force in either direction. The magnitude of the force shall be based on a pressure equal to twice the maximum working pressure with a maximum allowable stress of 1/2 of the support's yield strength.

3.03 TESTING

A. Shop and field testing of valves shall be as follows:

1. Shop Testing: Certified factory testing shall be provided for all components of the valve and operator system. Valves and operators shall be shop tested in accordance with the requirements in the latest revision of AWWA C500, including performance tests, leakage test, hydrostatic tests, and proof-of-design tests. The manufacturer through the CONTRACTOR shall submit certified copies of the reports covering the test for acceptance by the ENGINEER.
2. Field Testing: All valves shall be hydrostatically field tested at the specified pipeline test pressures specified in the piping sections. Any leakage or "sweating" of joints shall be stopped and all joints shall be tight. All valves shall be operated at the pressures specified in the piping schedules for the connected pipe.

B. The OWNER may at its discretion visit and inspect the manufacturer's facilities. During the inspection visit, a witness shop test shall be performed for all standard tests listed in applicable standards.

C. The CONTRACTOR shall obtain and submit certified statements that the valves and hydrants comply with the requirements of the standards specified herein.

3.04 PAINTING AND COATINGS

A. Valves and hydrants shall be shop primed for interior and exposed piping service in accordance with Division 9 and shall be coated for buried service with a one (1) mil coating in conformance with the outside coatings specified for ductile iron pipe.

- END OF SECTION -

SECTION 15101 – ELECTRIC OPERATORS

PART 1 -- GENERAL

1.01 THE REQUIREMENT

- A. The CONTRACTOR shall furnish and install electric operators, for new and existing valves and gates complete and operable, including all controls, motors, gears, etc., as shown and as specified herein, all in accordance with the requirements of the Contract Documents.
- B. Electric operators shall be designed to unseat, open or close, and seat the valves or gates under the most adverse operating condition to which the valves or gates will be subjected. The safety margin of motor power available for seating and unseating the valves or gates shall be sufficient to ensure torque switch trip at maximum valve torque with the supply voltage 10% below nominal. The capacity of the operator and /or actuator shall be adequate to drive the valves or gates under the differential pressure and flow as specified in this section.
- C. Operator mounting arrangements shall be as indicated on the Drawings or as directed by the manufacturer and/or ENGINEER. There shall be no mounting restrictions on the electric valve operator. Operators shall be furnished with conservatively sized extension bonnets, extension stems, or torque tubes, and all required adapters and appurtenances required for a complete installation. Operators furnished with extension bonnets shall include stainless steel extension stems, or stainless steel torque tubes. The electric operators for new and existing valves and gates shall be the full and undivided responsibility of the valve and gate manufacturers in order to ensure complete coordination of the components and to provide unit responsibility.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 15100 - Valves and Appurtenances
- B. Section 16405 - Electric Motors

1.03 QUALITY ASSURANCE

- A. For all electric motor operators the CONTRACTOR shall assign the valve (or gate) manufacturer the responsibility of any field adjustments to set or program the operator to provide the required control functions. All wires of motor operators shall be identified with a unique number.
- B. **All valve and gate electric operators shall be supplied by the same manufacturer for standardization and unit responsibilities purposes.** CONTRACTOR shall coordinate requirements with all valve and gate suppliers and existing equipment to ensure proper sizing and operation of all new and existing valves and gates fitted with electric operators.
- C. Shop Testing:
 - 1. Conduct a complete functional check of each unit. Correct any deficiencies found in shop testing prior to shipment.

2. Submit written certification that:
 - a. Shop tests for the electrical system and all controls were successfully conducted;
 - b. Electrical system and all controls provide the functions specified and required for proper operation of the valve operator system.
3. Each actuator shall be performance tested and individual test certificates shall be supplied free of charge. The test equipment shall simulate each typical valve load and the following parameters should be recorded:
 - a. Current at maximum torque setting
 - b. Torque at maximum torque setting
 - c. Flash Test Voltage
 - d. Actuator Output Speed or Operating Time
 - e. In addition, the test certificate should record details of specification, such as gear ratios for both manual and automatic drive, closing direction, and wiring diagram code number.

D. Service of Manufacturer's Representative:

1. Provide the services of a representative of the manufacturer(s) in order to:
 - a. Check out and certify the installation(s);
 - b. Provide assistance during field-tests;
 - c. Instruct the OWNER's operating personnel in proper operation and maintenance procedures for valves, geared operators, and electric modulating actuators.

1.04 SUBMITTALS

- A. Shop drawings of all proposed operators, including associated specifications, wiring diagrams, programming, register addresses, data communications configurations and proposed diagnostic and programming software as well as electrical data shall be furnished as specified in Section 01300 entitled "Submittals."

1.05 TOOLS, SUPPLIES AND SPARE PARTS

- A. Tools, supplies and spare parts shall be provided as specified in the Contract Documents and specified herein for the operation, programming and maintenance of the valve and gate operators.

- B. Provide programming and diagnostic software, cables and special tools, other than those normally found in an electronic technician's tool box, required to test, diagnose, calibrate, install, wire, connect, disconnect, assemble and disassemble equipment for service and maintenance (i.e., special tools, programmers/calibrators, indicator lamp insertion and removal tools, etc.).
- C. Provide tools and test equipment together with items such as instruction manuals, carrying/storage cases, programming/calibration unit, charger, special tools, cord extenders, and related items which are not specified but are necessary for checking field operation of equipment supplied under this Division.

PART 2 -- PRODUCTS

2.01 ELECTRIC MOTOR OPERATORS

- A. All motorized valves shall be furnished by the CONTRACTOR through the valve and gate manufacturers as a complete package. Electric motor driven valve and gate operators shall be furnished and installed in accordance with the applicable requirements shown on the process and instrumentation diagrams and electrical elementary diagrams. Operators shall comply with AWWA requirements for electric operators.
- B. Electric operators including the motor, all required gearing, integral continuous duty rated solid state reversing starter, position encoder, electronic torque sensor, AC line surge suppressors, programmable electronic controls and local control switches shall be provided. Electric motor operators/**controllers** shall be IQ as manufactured by Rotork, Accutronix MX as manufactured by Limitorque, **AUMATIC as manufactured by Auma** or OnTrac as manufactured by ABB.
- C. Unless otherwise indicated, or specified, motor operators shall be furnished complete with motors, torque switches, transmitters, electronic controllers, starters, incoming AC line power lightning and surge suppression, **fiber optic data link interface**, terminal blocks, gear reducers, handwheel, and incidental accessories as required.
- D. Stem Nut: The actuator for other than quarter turn valves shall have a stem nut of iron per AWWA C 540-93. The nut arrangement, where possible, shall be of the two-piece type **or shall be part of a separate sub assembly** to simplify field replacement.
- E. Manual Operation: A handwheel shall be provided for manual operation. The handwheel shall not relocate during hand operation nor shall a fused motor prevent manual operation.
- F. When in manual operating position, the 460 volt motor driven unit will remain in this position until motor is energized at which time the valve operator will automatically return to electric operation and shall remain in motor position until handwheel operation is desired. This movement from motor operation to handwheel operation shall be accomplished by a positive declutching knob or lever which will disengage motor and motor gearing mechanically but not electrically. Hand operation must be reasonably fast and require no more than 80 pounds of rim effort at the maximum required torque. It shall not be possible for the unit to be simultaneously in manual and motor operation.
- G. All motors on valves with nominal pipe sizes 3 inches and larger and all gate operators shall

be furnished with 460 volts, three phase, 60 Hz AC reversible squirrel cage induction type motors and shall be specifically designed for continuous duty service. Motors shall be totally enclosed, non-ventilated, with NEMA Class H (modulating service) or Class F (open/close service) insulation and a maximum continuous temperature rating of 120 degree C (rise plus ambient). The electric motor shall have a time rating of at least 15 minutes at 104°F (40°C) or twice the valve stroking time, whichever is longer, at an average load of at least 33% of maximum valve torque. The actuator shall include a device to ensure that the motor runs with the correct rotation for the required direction of valve travel with either phase sequence of the three-phase power supply connected to the actuator. The motor shall include single phase protection. The motor shall be deenergized in the event of a stall when attempting to unseat a jammed valve and when torque is exceeded during valve travel. Leads from the motor shall be brought to the limit switch compartment without external piping or conduit box. The motor and contactor shall be capable of up to 1200 start/stops per hour for modulating service operators with 60 starts per hour for open/close service operators without overheating. Motor bearings shall be permanently lubricated by premium lubricant. A suitable thermal protection device shall be incorporated in the motor or motor starter circuits, connected to a tripping device. Fast acting fuses shall be provided to protect solid state components. Solid state reversing starters utilizing thyristors shall be provided. 480VAC circuit breakers with locking disconnect handle (30 amp, 3 pole, 480 volt, unfused, NEMA 4X SS enclosure) shall be provided integrally mounted to the actuator control housing.

- H. Gears shall be rated at twice the output torque of the operator. Heavy-duty grease shall protect gearing and sealed ball bearings of the main shaft for five years without changing. Power gearing shall consist of helical or spur type gears of alloy heat-treated steel. Worm gears shall be carburized and hardened alloy steel and ground after heat treatment. The worm gear pinion shall be alloy bronze. The gearing shall be designed to allow field repair and change in gear ratio. All gearing shall be designed for 100 percent overload. Unless otherwise specified, gear ratios for quarter-turn valves shall be selected to provide a minimum travel time of 45 seconds from full-closed to full-open. Gear ratios for linear gates and devices shall be selected to provide a minimum travel time of 60 seconds from full-closed to full-open.
- I. Torque capacity of the actuators shall be sufficient to operate the valves and gates with the maximum pressure differential indicated in the associated valve schedule with a safety factor of 1.5. Operating time for full limits of travel shall be not more than 2 seconds per inch diameter of the valve, +/- 50 percent through 20 inches; +/- 30 percent for valves 24 inches and larger. Over travel of the operator shall be prevented by internal mechanical stops cast into the operator. A local continuous position indicator shall be provided. Actuators shall be equipped with declutch mechanism and hand wheel operator for manual operation. When the actuator is set in the declutched position for hand wheel operation, it shall return automatically to electric operation when actuator motor is energized. The hand wheel shall not rotate during electric operation nor shall a fused motor prevent hand wheel operation. Actuators shall be self-locking with non-back driving stem nuts.
- J. Actuators shall be capable of operating in ambient temperatures ranging from -22 degrees F to +160 degrees F.
- K. Actuators shall be provided with individual compartments for the motor, gearing, wiring terminals, and control circuits, including auxiliary switches plus position sensing device. Compartments shall be provided with moisture and dust-proof rigid cast covers meeting NEMA 6, certified to 10 ft of water for 48 hours. **Where explosion hazard areas are shown or specified, actuator enclosures shall be explosion proof.** The terminal compartment

shall be separated from the inner electrical components of the actuator by means of a watertight seal. The inner seal shall fully protecting the motor and all other internal electrical elements of the actuator from ingress of moisture and dust when the terminal cover is removed on site for cabling or transported by conduit. Double cartridge shaft seals shall be provided on the hand wheel and output shafts for weatherproof protection. All external fasteners shall be **316** stainless steel.

- L. All motors or valves with nominal pipe sizes less than 3 inches shall be designed for 120 VAC and the above duty conditions.
- M. The motors shall conform to applicable parts of Section 16405 entitled "Electric Motors".
- N. Speed-torque curves for the motors and torque calculations for seating, unseating, and running conditions shall be submitted. The maximum valve torque (seating/unseating) shall be less than 50 percent of stall torque or starting torque potential of the motor whichever is greater.
- O. Electronic Controller: The electronic controller assembly and related control devices shall include but not be limited to the following:
 - 1. Valve position shall be sensed by a 15-bit, optical, incremental or absolute position encoder or magnetic pulse system. Open and closed positions shall be stored in permanent, non-volatile memory. The **controller** shall measure and visually indicate valve position at all times, including **during** both motor and handwheel operation. **Position indication shall be accomplished by integral LCD display and manual position indicator (a manual indicator is not required if a separate backup battery power supply is furnished for the LCD display).**
 - 2. An electronic torque sensor shall be included. The torque limit may be adjusted from 40-100% of rating in 1% increments. The motor shall be de-energized if the torque limit is exceeded. A boost function shall be included to prevent torque trip during initial valve unseating, and a "Jammed Valve" protection feature, with automatic retry sequence, shall be incorporated to de-energize the motor if no movement occurs.
 - 3. The control module shall include power and logic circuit boards, control transformer, and protection fuses. The module shall be easily removed through the use of plug-in connectors. The module shall also include a solid-state reversing starter, local control switches, LCD, and LED indicators. All internal wiring shall be flame-resistant, rated 105 degrees C, and UL listed.
 - 4. The reversing starter shall be mechanically interlocked to prevent simultaneous energizing of the open and close coils. The control module shall also include an auto reversal delay to inhibit high current surges caused by rapid motor reversals. The control transformer shall include vacuum-impregnated coils and dual primary fuses. A phase correction circuit shall be included to correct motor rotation faults caused by incorrect site wiring. The phase correction circuit shall also detect the loss of a phase and disable operation to prevent motor damage.
 - 5. A dedicated circuit to prevent undesired valve operation in the event of an internal circuit fault or erratic command signal shall be included. In the event of an internal

circuit fault, an alarm shall be signaled by tripping the Monitor Relay providing a fault output through the data link and through the local LCD indication.

6. A monitor relay shall be included and shall trip when the actuator is not available for remote operation.
7. A Liquid Crystal Display (LCD) shall be included to display valve position as a percent of open, 0-100%, and current actuator status. "STATUS OK" shall be displayed for an operable actuator. If the actuator is not operable, the appropriate alarm shall be displayed. The alarm shall be continuously displayed until the actuator is operable. Red, green, and yellow LEDs shall be included for open, close, stopped, and moving indication.
8. All calibration shall be possible without removing any covers. A configurable password shall be available to prevent unauthorized changes.
9. The actuator shall be coated with a high-solids epoxy E-coat primer, and then finish-coated with a polymer powder coat. External fasteners shall be 316 stainless steel.
10. Diagnostic and programming facilities shall be included to program the unit as well as to accumulate and report the performance of the motor, position encoder or magnetic pulse system, cycle time, handwheel operations, actuator ID, and output turns. In addition, a torque profile of the reference baseline valve stroke and the last valve stroke shall be included. All diagnostic information shall be displayed on the LCD or through hand held infrared programming tool. Programming tool and accessories shall be provided.
11. A control station shall be incorporated integrally within the electronic controller housing to provide open/stop/close control and remote/local control of the operator with a locking facility. Remote controls shall utilize a Profibus fiber optic control data link interface. The Profibus fiber optic data link shall provide for valve status (in remote, fault, etc.) Opened/Closed indication and control (open/close service) as well as digital position indication and control (modulating service).
12. Wiring terminals shall be embedded in a terminal block of high tracking-resistance compound. The power terminals shall be shrouded from the control terminals by an insulating cover. The terminal compartment shall be separated from the inner electronic controller compartment of the actuator by means of a watertight seal.
13. Controller shall be 'o' ring sealed, watertight, and dustproof to NEMA 6 minimum standard. The control modules shall have an inner watertight and dustproof 'o' ring seal between the terminal compartment and the internal electrical elements of the actuator, fully protecting the switch mechanism, and other internal electrical elements from moisture, and dust, when the terminal compartment cover is removed on site for cabling. **Where explosion hazard areas are shown or specified, actuator enclosures shall be explosion proof. In explosion hazard areas, FM approval shall be to 3600 and 3615 Class 1 Div 1 Groups C&D. Class 2 Div 1E, F&G.**
14. Incoming AC power lightning/surge protection shall be provided through a surge protection device mounted on the exterior of the case (screw in type) or in a separate

adjacent enclosure. Protection device shall be Phoenix Contact VALVETRAB, or equal.

- P. Remote monitoring and control shall be provided utilizing a Profibus fiber optic data link interface capable of communication over a fiber optic ring topology. Local and remote commands, controls and status indication shall be provided as described.
- Q. Where integral Profibus fiber optic interfaces are not available, a copper media interface may be provided with a Profibus fiber optic data link interface converter which shall be internally mounted or factory mounted in a separate NEMA 4 x enclosure on the exterior of the case. Power supply shall be 20-30 VDC from the actuator, fiber optic data link interface shall be Hirschmann Model OZD PROFI 12M/G12 Profibus fiber optic repeater, or equal. Repeater shall be fully compatible with the plant control system Profibus network. CONTRACTOR shall fully coordinate requirements and network compatibility.
- R. Local and remote commands, controls and status indication shall be provided as described herein.
 - 1. Full open or full close service.
 - a. Local operation
 - LOCAL/REMOTE signal selector switch
 - OPEN/CLOSE pushbuttons and status lights
 - Fault indication
 - 0-100% position indication
 - b. Remote operation
 - In REMOTE and power on status to control system
 - Full OPEN status to control system
 - Full CLOSED status to control system
 - OPEN command (momentary discrete) from control system
 - CLOSE command (momentary discrete) from control system
 - FAULT status to control system
 - 2. Modulating service
 - a. Local operation
 - LOCAL/REMOTE signal selector switch
 - OPEN/STOP/CLOSE pushbuttons and status lights
 - Fault indication
 - 0-100% position indication
 - b. Remote operation
 - In REMOTE and power on status to control system
 - 0-100% position to control system
 - 0-100% position setpoint from control system

FAULT status to control system

Hwd:43128S15101 Addendum 3/10-13--03

*Fiveash WTP Upgrades – Phase 1
ADDENDUM No. 3*

15101-8

3. All service conditions
 - a. Actuator moving
 - b. Battery low
 - c. Motion inhibit timer active
 - d. General Errors
 - e. Current actuator torque value

S. Controller programming, Profibus controller addressing, fiber optic transceiver compatibility and signal data table addresses shall be coordinated with the Instrumentation and Control System Subcontractor.

T. Actuators shall be manufacturers standard design with a minimum of five years successful operating history. A minimum of ten installation references (with contact and phone number) shall be provided with the submittals.

2.02 MANUAL OPERATORS

A. Refer to Section 15100 entitled "Valves and Appurtenances".

PART 3 -- EXECUTION

3.01 INSTALLATION

A. Valve and gate operators shall be installed in accordance with Section 15100 entitled, "Valves and Appurtenances."

3.02 SCHEDULE

Tag Number	Description	Valve/Gate Size	Differential Pressure	Service	Comment ^A
MOV_3101A	Filter No. 1 Influent Valve	30 in.	30 psi	open/close	
MOV_3101B	Filter No. 1 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3101C	Filter No. 1 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3101D	Filter No. 1 Flow Control Valve	14 in.	30 psi.	modulating	
MOV_3101E	Filter No. 1 Drain Valve	6 in.	30 psi.	open/close	
MOV_3101F	Filter No. 1 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3101G	Filter No. 1 Waste Valve	20 in.	30 psi.	open/close	
MOV_3101H	Filter No. 1 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3101I	Filter No. 1 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3102A	Filter No. 2 Influent Valve	30 in.	30 psi	open/close	
MOV_3102B	Filter No. 2 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3102C	Filter No. 2 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3102D	Filter No. 2 Flow Control Valve	14 in.	30 psi.	modulating	
MOV_3102E	Filter No. 2 Drain Valve	6 in.	30 psi.	open/close	
MOV_3102F	Filter No. 2 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3102G	Filter No. 2 Waste Valve	20 in.	30 psi.	open/close	

Hwd:43128S15101 Addendum 3/10-13--03

Fiveash WTP Upgrades – Phase 1
ADDENDUM No. 3

15101-9

Tag Number	Description	Valve/Gate Size	Differential Pressure	Service	Comment ^A
MOV_3102H	Filter No. 2 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3102I	Filter No. 2 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3103A	Filter No. 3 Influent Valve	30 in.	30 psi	open/close	
MOV_3103B	Filter No. 3 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3103C	Filter No. 3 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3103D	Filter No. 3 Flow Control Valve	14 in.	30 psi.	modulating	
MOV_3103E	Filter No. 3 Drain Valve	6 in.	30 psi.	open/close	
MOV_3103F	Filter No. 3 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3103G	Filter No. 3 Waste Valve	20 in.	30 psi.	open/close	
MOV_3103H	Filter No. 3 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3103I	Filter No. 3 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3104A	Filter No. 4 Influent Valve	18 in.	30 psi	open/close	
MOV_3104B	Filter No. 4 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3104C	Filter No. 4 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3104D	Filter No. 4 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3104E	Filter No. 4 Drain Valve	8 in.	30 psi.	open/close	
MOV_3104F	Filter No. 4 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3104G	Filter No. 4 Waste Valve	20 in.	30 psi.	open/close	
MOV_3104H	Filter No. 4 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3104I	Filter No. 4 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3105A	Filter No. 5 Influent Valve	18 in.	30 psi	open/close	
MOV_3105B	Filter No. 5 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3105C	Filter No. 5 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3105D	Filter No. 5 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3105E	Filter No. 5 Drain Valve	8 in.	30 psi.	open/close	
MOV_3105F	Filter No. 5 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3105G	Filter No. 5 Waste Valve	20 in.	30 psi.	open/close	
MOV_3105H	Filter No. 5 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3105I	Filter No. 5 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3106A	Filter No. 6 Influent Valve	18 in.	30 psi	open/close	
MOV_3106B	Filter No. 6 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3106C	Filter No. 6 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3106D	Filter No. 6 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3106E	Filter No. 6 Drain Valve	8 in.	30 psi.	open/close	
MOV_3106F	Filter No. 6 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3106G	Filter No. 6 Waste Valve	20 in.	30 psi.	open/close	
MOV_3106H	Filter No. 6 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3106I	Filter No. 6 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3107A	Filter No. 7 Influent Valve	18 in.	30 psi	open/close	

Hwd:43128S15101 Addendum 3/10-13--03

Fiveash WTP Upgrades – Phase 1
ADDENDUM No. 3

15101-10

Tag Number	Description	Valve/Gate Size	Differential Pressure	Service	Comment ^A
MOV_3107B	Filter No. 7 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3107C	Filter No. 7 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3107D	Filter No. 7 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3107E	Filter No. 7 Drain Valve	8 in.	30 psi.	open/close	
MOV_3107F	Filter No. 7 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3107G	Filter No. 7 Waste Valve	20 in.	30 psi.	open/close	
MOV_3107H	Filter No. 7 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3107I	Filter No. 7 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3108A	Filter No. 8 Influent Valve	18 in.	30 psi.	open/close	
MOV_3108B	Filter No. 8 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3108C	Filter No. 8 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3108D	Filter No. 8 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3108E	Filter No. 8 Drain Valve	8 in.	30 psi.	open/close	
MOV_3108F	Filter No. 8 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3108G	Filter No. 8 Waste Valve	20 in.	30 psi.	open/close	
MOV_3108H	Filter No. 8 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3108I	Filter No. 8 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3109A	Filter No. 9 Influent Valve	18 in.	30 psi.	open/close	
MOV_3109B	Filter No. 9 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3109C	Filter No. 9 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3109D	Filter No. 9 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3109E	Filter No. 9 Drain Valve	8 in.	30 psi.	open/close	
MOV_3109F	Filter No. 9 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3109G	Filter No. 9 Waste Valve	20 in.	30 psi.	open/close	
MOV_3109H	Filter No. 9 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3109I	Filter No. 9 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3110A	Filter No. 10 Influent Valve	18 in.	30 psi.	open/close	
MOV_3110B	Filter No. 10 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3110C	Filter No. 10 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3110D	Filter No. 10 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3110E	Filter No. 10 Drain Valve	8 in.	30 psi.	open/close	
MOV_3110F	Filter No. 10 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3110G	Filter No. 10 Waste Valve	20 in.	30 psi.	open/close	
MOV_3110H	Filter No. 10 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3110I	Filter No. 10 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3111A	Filter No. 11 Influent Valve	18 in.	30 psi.	open/close	
MOV_3111B	Filter No. 11 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3111C	Filter No. 11 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3111D	Filter No. 11 Flow Control Valve	12 in.	30 psi.	modulating	

Hwd:43128S15101 Addendum 3/10-13--03

Fiveash WTP Upgrades – Phase 1
ADDENDUM No. 3

15101-11

Tag Number	Description	Valve/Gate Size	Differential Pressure	Service	Comment ^A
MOV_3111E	Filter No. 11 Drain Valve	8 in.	30 psi.	open/close	
MOV_3111F	Filter No. 11 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3111G	Filter No. 11 Waste Valve	20 in.	30 psi.	open/close	
MOV_3111H	Filter No. 11 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3111I	Filter No. 11 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3112A	Filter No. 12 Influent Valve	18 in.	30 psi	open/close	
MOV_3112B	Filter No. 12 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3112C	Filter No. 12 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3112D	Filter No. 12 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3112E	Filter No. 12 Drain Valve	8 in.	30 psi.	open/close	
MOV_3112F	Filter No. 12 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3112G	Filter No. 12 Waste Valve	20 in.	30 psi.	open/close	
MOV_3112H	Filter No. 12 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3112I	Filter No. 12 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3113A	Filter No. 13 Influent Valve	18 in.	30 psi	open/close	
MOV_3113B	Filter No. 13 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3113C	Filter No. 13 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3113D	Filter No. 13 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3113E	Filter No. 13 Drain Valve	8 in.	30 psi.	open/close	
MOV_3113F	Filter No. 13 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3113G	Filter No. 13 Waste Valve	20 in.	30 psi.	open/close	
MOV_3113H	Filter No. 13 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3113I	Filter No. 13 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3114A	Filter No. 14 Influent Valve	18 in.	30 psi	open/close	
MOV_3114B	Filter No. 14 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3114C	Filter No. 14 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3114D	Filter No. 14 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3114E	Filter No. 14 Drain Valve	8 in.	30 psi.	open/close	
MOV_3114F	Filter No. 14 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3114G	Filter No. 14 Waste Valve	20 in.	30 psi.	open/close	
MOV_3114H	Filter No. 14 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3114I	Filter No. 14 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3115A	Filter No. 15 Influent Valve	18 in.	30 psi	open/close	
MOV_3115B	Filter No. 15 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3115C	Filter No. 15 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3115D	Filter No. 15 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3115E	Filter No. 15 Drain Valve	8 in.	30 psi.	open/close	
MOV_3115F	Filter No. 15 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3115G	Filter No. 15 Waste Valve	20 in.	30 psi.	open/close	

Hwd:43128S15101 Addendum 3/10-13--03

Fiveash WTP Upgrades – Phase 1
ADDENDUM No. 3

15101-12

Tag Number	Description	Valve/Gate Size	Differential Pressure	Service	Comment ^A
MOV_3115H	Filter No. 15 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3115I	Filter No. 15 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3116A	Filter No. 16 Influent Valve	18 in.	30 psi	open/close	
MOV_3116B	Filter No. 16 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3116C	Filter No. 16 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3116D	Filter No. 16 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3116E	Filter No. 16 Drain Valve	8 in.	30 psi.	open/close	
MOV_3116F	Filter No. 16 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3116G	Filter No. 16 Waste Valve	20 in.	30 psi.	open/close	
MOV_3116H	Filter No. 16 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3116I	Filter No. 16 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3117A	Filter No. 17 Influent Valve	18 in.	30 psi	open/close	
MOV_3117B	Filter No. 17 Left Backwash Valve	16 in.	150 psi.	open/close	
MOV_3117C	Filter No. 17 Right Backwash Valve	16 in.	150 psi.	open/close	
MOV_3117D	Filter No. 17 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3117E	Filter No. 17 Drain Valve	8 in.	30 psi.	open/close	
MOV_3117F	Filter No. 17 Main Backwash Valve	16 in.	150 psi.	open/close	
MOV_3117G	Filter No. 17 Waste Valve	20 in.	30 psi.	open/close	
MOV_3117H	Filter No. 17 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3117I	Filter No. 17 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3118A	Filter No. 18 Influent Valve	18 in.	30 psi	open/close	
MOV_3118B	Filter No. 18 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3118C	Filter No. 18 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3118D	Filter No. 18 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3118E	Filter No. 18 Drain Valve	8 in.	30 psi.	open/close	
MOV_3118F	Filter No. 18 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3118G	Filter No. 18 Waste Valve	20 in.	30 psi.	open/close	
MOV_3118H	Filter No. 18 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3118I	Filter No. 18 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3119A	Filter No. 19 Influent Valve	18 in.	30 psi	open/close	
MOV_3119B	Filter No. 19 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3119C	Filter No. 19 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3119D	Filter No. 19 Flow Control Valve	12 in.	30 psi.	modulating	
MOV_3119E	Filter No. 19 Drain Valve	8 in.	30 psi.	open/close	
MOV_3119F	Filter No. 19 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3119G	Filter No. 19 Waste Valve	20 in.	30 psi.	open/close	
MOV_3119H	Filter No. 19 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3119I	Filter No. 19 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3120A	Filter No. 20 Influent Valve	30 in.	30 psi	open/close	

Hwd:43128S15101 Addendum 3/10-13--03

Fiveash WTP Upgrades – Phase 1
ADDENDUM No. 3

15101-13

Tag Number	Description	Valve/Gate Size	Differential Pressure	Service	Comment ^A
MOV_3120B	Filter No. 20 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3120C	Filter No. 20 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3120D	Filter No. 20 Flow Control Valve	14 in.	30 psi.	modulating	
MOV_3120E	Filter No. 20 Drain Valve	6 in.	30 psi.	open/close	
MOV_3120F	Filter No. 20 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3120G	Filter No. 20 Waste Valve	20 in.	30 psi.	open/close	
MOV_3120H	Filter No. 20 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3120I	Filter No. 20 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3121A	Filter No. 21 Influent Valve	30 in.	30 psi.	open/close	
MOV_3121B	Filter No. 21 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3121C	Filter No. 21 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3121D	Filter No. 21 Flow Control Valve	14 in.	30 psi.	modulating	
MOV_3121E	Filter No. 21 Drain Valve	6 in.	30 psi.	open/close	
MOV_3121F	Filter No. 21 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3121G	Filter No. 21 Waste Valve	20 in.	30 psi.	open/close	
MOV_3121H	Filter No. 21 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3121I	Filter No. 21 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3122A	Filter No. 22 Influent Valve	30 in.	30 psi.	open/close	
MOV_3122B	Filter No. 22 Left Backwash Valve	18 in.	150 psi.	open/close	
MOV_3122C	Filter No. 22 Right Backwash Valve	18 in.	150 psi.	open/close	
MOV_3122D	Filter No. 22 Flow Control Valve	14 in.	30 psi.	modulating	
MOV_3122E	Filter No. 22 Drain Valve	6 in.	30 psi.	open/close	
MOV_3122F	Filter No. 22 Main Backwash Valve	18 in.	150 psi.	open/close	
MOV_3122G	Filter No. 22 Waste Valve	20 in.	30 psi.	open/close	
MOV_3122H	Filter No. 22 Left Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_3122I	Filter No. 22 Right Surface Wash Valve	4 in.	150 psi.	open/close	
MOV_1201	Aeration Basin No.1 Influent Valve	36 in.	150 psi.	modulating	New operator, existing valve new stem and stand
MOV_1202	Aeration Basin No.2 Influent Valve	36 in.	150 psi.	modulating	New operator, existing valve new stem and stand
MOV_2101	Hydrotreator No.1 Influent Control Valve	24 in.	30 psi.	modulating	
MOV_2102	Hydrotreator No. 2 Influent Control Valve	24 in.	30 psi.	modulating	
MOV_2103	Hydrotreator No. 3 Influent Control Valve	30 in.	30 psi.	modulating	
MOV_2104	Hydrotreator No. 4 Influent Control Valve	30 in.	30 psi.	modulating	
MOV_2101I	Hydrotreator No.1 Sludge Flushing Valve	4 in.	150 psi.	open/close	
MOV_2101J	Hydrotreator No.1 Sludge Drawoff Valve	8 in.	150 psi.	open/close	
MOV_7301	Hydrotreator No.1 Sludge Blowdown Valve	6 in.	150 psi.	open/close	
MOV_2102I	Hydrotreator No. 2 Sludge Flushing Valve	6 in.	150 psi.	open/close	
MOV_2102J	Hydrotreator No.2 Sludge Drawoff Valve	8 in.	150 psi.	open/close	
MOV_7302	Hydrotreator No. 2 Sludge Blowdown Valve	6 in.	150 psi.	open/close	
MOV_2103I	Hydrotreator No. 3 Sludge Flushing Valve	6 in.	150 psi.	open/close	

Hwd:43128S15101 Addendum 3/10-13--03

Fiveash WTP Upgrades – Phase 1
ADDENDUM No. 3

15101-14

Tag Number	Description	Valve/Gate Size	Differential Pressure	Service	Comment ^A
MOV_2103J	Hydrotreator No. 3 Sludge Drawoff Valve	4 in.	150 psi.	open/close	
MOV_7303	Hydrotreator No. 3 Sludge Blowdown Valve	6 in.	150 psi.	open/close	
MOV_2104I	Hydrotreator No. 4 Sludge Flushing Valve	6 in.	150 psi.	open/close	
MOV_2104J	Hydrotreator No. 4 Sludge Drawoff Valve	6 in.	150 psi.	open/close	
MOV_7304	Hydrotreator No. 4 Sludge Blowdown Valve	6 in.	150 psi.	open/close	
MOV_3202	Backwash Pump No. 2 Throttling Valve	20 in.	150 psi.	modulating	
MOV_3203	Backwash Pump No. 3 Throttling Valve	20 in.	150 psi.	modulating	
MOG_6107A	Clearwell 7 Sluice Gate A	2'-6"x2'-6"	30 psi.	open/close	New operator, existing gate reuse existing stem and stand
MOG_6107B	Clearwell 7 Sluice Gate B	2'-6"x2'-6"	30 psi.	open/close	New operator, existing gate reuse existing stem and stand
MOV_6107C	Clearwell 7 Strikedown Valve C	30 in.	30 psi.	modulating	New operator, existing valve new stem and stand
MOV_6107D	Clearwell 7 Strikedown Valve D	30 in.	30 psi.	modulating	New operator, existing valve new stem and stand
MOV_6107E	Clearwell 7 Strikedown Valve E	30 in.	30 psi.	modulating	New operator, existing valve new stem and stand
MOV_6107F	Clearwell 7 Strikedown Valve F	30 in.	30 psi.	modulating	New operator, existing valve new stem and stand
MOV_6204	High Service Pump No. 4	24 in.	150 psi.	modulating	
MOV_6205	High Service Pump No. 5	24 in.	150 psi.	modulating	
MOV_6101	Clearwell No.1 Strikedown Valve	24 in.	30 psi.	modulating	
MOV_3501	Washwater Recovery Basin No. 1 Inlet Valve	24 in.	150 psi.	open/close	
MOV_3502	Washwater Recovery Basin No. 2 Inlet Valve	24 in.	150 psi.	open/close	
MOV_8211	Ammonia Storage Tank No. 1 Supply Valve	2 in.	50 psi.	open/close	Class 1, Div 2, 120V
MOV_8212	Ammonia Storage Tank No. 2 Supply Valve	2 in.	50 psi.	open/close	Class 1, Div 2, 120V

Notes:

A – Operators will be for new valves or gates unless indicated otherwise.

- END OF SECTION -

SECTION 15110 - BUTTERFLY VALVES

PART 1 -- GENERAL

1.01 THE REQUIREMENT

- A. The CONTRACTOR shall provide butterfly valves and appurtenances, complete and operable, in accordance with the Contract Documents.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 15100 - Valves and Appurtenances

1.03 SUBMITTALS

- A. The CONTRACTOR shall furnish submittals in accordance with the Section entitled "Submittals".

1.04 REFERENCE STANDARDS

- A. ASME B16.1 Cast Iron Flanges and Flange Fitting
- B. AWWA C504 Standard for Rubber Seated Butterfly Valves

PART 2 -- PRODUCTS

2.01 BUTTERFLY VALVES (AWWA)

- A. General: Butterfly valves for water working pressures up to 150 psi shall conform to ANSI/AWWA C504 – Rubber Seated Butterfly Valves, subject to the following requirements. Valves shall be short-body class 150B flanged end type. Flanges shall be drilled to ASME B16.1, Class 125 dimensions. Shaft seals shall be designed for use with standard split-V type packing or other acceptable seal. The interior passage of butterfly valves shall not have any obstructions or stops. The seats shall be positively clamped or bonded on body of the valve, but cartridge-type seats which rely on a high coefficient of friction for retention shall not be acceptable. Where rubber-lined bodies are required, the lining shall wrap around to cover the flange sealing face. Valve seats shall be EPDM; suitable for the pipeline fluid operating conditions.
- B. Manual Actuators: Actuators shall conform to the Section entitled "Valves and Appurtenances" subject to the following requirements. Unless otherwise indicated, all manually-actuated butterfly valves shall be equipped with a handwheel and 2-inch square actuating nut and position indicator. Screw-type (traveling nut) actuators will not be permitted for valves 30 inches in diameter and larger.
- C. Worm Gear Actuators: Valves, 30 inches and larger, as well as all submerged and buried valves, shall be equipped with worm-gear actuators, lubricated and sealed to prevent entry of dirt or water into the housing.

D. Manufacturers:

1. De Zurik Corporation
2. Mueller Company
3. Henry Pratt Company

PART 3 -- EXECUTION

3.01 INSTALLATION

- A. All exposed butterfly valves shall be installed with a means of removing the complete valve assembly without dismantling the valve or operator. The installation shall be in accordance with the Section entitled "Valves and Appurtenances".

3.02 PROTECTIVE COATINGS

- A. Exterior Coatings for Aboveground Service: Valve exterior shall be factory coated with a red phenolic primer paint. Primer shall be suitable for contact with potable water and shall meet the requirements of ANSI/NSF Standard 61: Drinking Water System Components. Primer shall be compatible with the finish coating specified in Section 09900 – Painting.
- B. Exterior Coatings for Underground Service: Exterior ferrous surfaces of valves that will be in contact with water shall receive a thermosetting epoxy coating conforming to AWWA C550. Coating shall be suitable for contact with potable water and shall meet the requirements of ANSI/NSF Standard 61: Drinking Water System Components. Coating shall be compatible with the finish coating specified in Section 09900 – Painting.
- C. Interior Coatings for Aboveground or Underground Service: Interior ferrous surfaces of valves that will be in contact with water shall receive a thermosetting epoxy coating conforming to AWWA C550. Coating shall be suitable for contact with potable water and shall meet the requirements of ANSI/NSF Standard 61: Drinking Water System Components.

- END OF SECTION -

Question and Answers for Bid #12589-423 - FiveAsh Water Treatment Plant Filters Rehabilitation-Phase 2

Overall Bid Questions

There are no questions associated with this bid.

Question Deadline: Nov 15, 2021 5:00:00 PM EST