

## SECTION 01150 MEASUREMENT AND PAYMENT

### PART 1 GENERAL

#### 1.01 SCOPE

- A. The scope of this section of the Contract Documents is to further define the items included in each Bid Item in the Bid Form section of the Contract Documents. Payment will be made based on the specified items included in the description in this section for each bid item.
- B. All contract prices included in the Bid Form section will be full compensation for all shop drawings, working drawings, labor, materials, tools, equipment and incidentals necessary to complete the construction as shown on the Drawings and/or as specified in the Contract Documents to be performed under this Contract. Actual quantities of each item bid on a unit price basis will be determined upon completion of the construction in the manner set up for each item in this section of the Specifications. Payment for all items listed in the Bid Form will constitute full compensation for all work shown and/or specified to be performed under this Contract.

#### 1.02 ESTIMATED QUANTITIES

The quantities shown are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. The County does not assume any responsibility for the final quantities, nor shall the Contractor claim misunderstanding because of such estimate of quantities. Final payment will be made only for satisfactorily completed quantity of each item.

#### 1.03 WORK OUTSIDE AUTHORIZED LIMITS

No payment will be made for work constructed outside the authorized limits of work.

#### 1.04 MEASUREMENT STANDARDS

Unless otherwise specified for the particular items involved, all measurements of distance shall be taken horizontally or vertically.

#### 1.05 AREA MEASUREMENTS

In the measurement of items to be paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the final dimensions measured along the surface of the completed work within the neat lines shown or designated.

#### 1.06 LUMP SUM ITEMS

Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum items. Lump sum contracts shall be complete, tested and fully operable prior to request for final payment. Contractor may be required to provide a break-down of the lump sum totals.

#### 1.07 UNIT PRICE ITEM

Separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work shall be considered to be included in the scope of the appropriate listed work items.

No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work. Final payments shall not be requested by the Contractor or made by the County until as-built (record) drawings have been submitted and approved by the County.

1. Project signs and photographs.
2. Removal, repair, replacement or relocation of all signs, walls, private irrigation systems and related items.
3. Rubbish and spoil removal.
4. Shop Drawings, Working Drawings.
5. Clearing, grubbing and grading except as hereinafter specified.
6. Trench excavation, including necessary pavement removal and rock removal, except as otherwise specified.
7. Dewatering and disposal of surplus water.
8. Structural fill, backfill, and grading.
9. Replacement of unpaved roadways, and shrubbery plots.
10. Cleanup & miscellaneous work.
11. Foundation and borrow materials, except as hereinafter specified.
12. Testing and placing system in operation.
13. Any material and equipment required to be installed and utilized for the tests.
14. Pipe, structures, pavement replacement, asphalt and shell driveways and/or appurtenances included within the limits of lump sum work, unless otherwise shown.
15. Maintaining the existing quality of service during construction.
16. Appurtenant work as required for a complete and operable system.
17. Seeding and hydromulching.

**BID ITEM NO. 1 - MOBILIZATION**

Measurement and payment for this Bid Item shall include full compensation for the required 100 percent (100%) Performance Bond, 100 Percent (100%) Payment Bond, all required insurance for the project and the Contractor's mobilization and demobilization costs as shown in the Bid Form. Mobilization includes, but it not limited to: preparation and movement of personnel, equipment, supplies and incidentals such as safety and sanitary supplies/ facilities.

Payment for mobilization shall not exceed 10 percent (10%) of the total Contract cost unless the Contractor can prove to the County that his actual mobilization cost exceeds 10 percent (10%).

Partial payments for this Bid Item will be made in accordance with the following schedule:

Percent of Original Contract Amount:	Percent Allowable Payment of Mobilization/Demobilization Bid Item Price:
5	25
10	35

25	45
50	50
75	75
100	100

These payments will be subject to the standard retainage provided in the Contract. Payment of the retainage will be made after completion of the work and demobilization.

**BID ITEM NO. 2 - MAINTENANCE OF TRAFFIC**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for all maintenance of traffic, including coordination with FDOT, including all other local agencies and municipalities, and all equipment and manpower necessary to comply with the FDOT Design Standards 600 Series.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

**BID ITEM NO. 3 - MAINTENANCE OF DRILL & TEMPORARY CULVERTS FOR LAYDOWN PIPE**

Payment for all work included, but not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum bid for maintenance of drill including temporary culverts for laydown pipe, asphalt/concrete restoration, landscaping, and permitting if required.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents

**BID ITEM NO. 4 - EROSION AND SEDIMENT CONTROL**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for erosion and sediment control, including permitting if required, coordination with federal, state and local agencies and all equipment and manpower necessary to comply with necessary agencies.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

**BID ITEM NO. 5 - CLEARING AND GRUBBING**

Payment for all work included under this Bid Item shall be quantified by the Contractor per acre and paid for as a lump sum amount for all of the areas that will require clearing and grubbing for the pipe installation and in accordance with the plans and specifications. Clearing and grubbing shall include the removal and disposal of trees, tree roots, rock, abandoned pipe and other features not part of the proposed improvements. The Contractor shall include the cost of any and all permitting required for the burning or disposal of removed trees and vegetation.

Unless otherwise indicated herein these documents or in the construction plans, clearing and grubbing includes a ten (10) foot strip along the pipeline route. The contractor will be responsible for making their own determination as to the acreage and quantity of clearing and grubbing.

#### **BID ITEM NO. 6 - PRECONSTRUCTION VIDEO**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the preconstruction video of the existing site conditions. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

#### **BID ITEM NO. 7 - PROJECT SIGNS**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the necessary signage required during construction. At least two (2) project signs should be used per project. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

#### **BID ITEM NO. 8 - RECORD DRAWINGS**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for as-built record drawings or any other required certifications to put proposed project into service. All items are subject to approval by the Engineer and the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

#### **BID ITEM - HDPE DR 9 PIPE**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the HDPE DR 9 pipe by directional drill and associated connection pipe sections as shown on the Contract Drawings and listed on the Bid Form. As part of the testing methods for the HDPE pipe installation, the Contractor shall televise or pull a mandrel through the installed HDPE pipe to verify sound installation.

Measurement and Payment shall be made for the actual length of the pipe directional drilled and installed, and will represent full compensation for all labor, materials, excavation, including

rock, dewatering, bedding, backfill, compaction, testing, pipe restraints (including MJ adapter with ductile iron gland and blue fluoropolymer coated high-strength low alloy steel conforming to AWWA C111 or 316 stainless steel hardware), end seals, grout, dual tracer wires, mud trailer, removal of drilling mud, and equipment required to complete these Bid Items. Payment shall also include locating of existing utilities and restoration in the project area. Included in these bid items are the removal and replacement of existing roadway signs, traffic signalization loops, and irrigation systems required to construct the pipeline. Payment shall also include removal of existing abandoned pipelines and protecting and supporting power/light poles that may be in conflict with the pipeline construction. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement.

BID ITEM	DESCRIPTION	UNITS
9	24" HDPE DR 9 Water Main (HDD)	LF
45	20" HDPE DR 9 Force Main (HDD)	LF

**BID ITEM NO. 10 - 36" STEEL CASING (OPEN-CUT)**

Payment for all work included, but is not limited to, under these Bid Items shall represent full compensation in accordance with the unit price bid per linear foot of standard steel casing for open cut pipe installation, including casing spacers, welds, end seals with stainless steel clamps, and hardware. All materials shall conform to the most updated version of the Manatee County Approved Product List. Bid Item also represents full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the casing pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement. No additional compensation shall be made for extensive dewatering or any water treatment services or equipment that may be required for contaminated groundwater.

Measurement for the steel casing shall be per length foot as shown on the Plans. Excavation, including rock as necessary, bedding, backfill, dewatering, sheeting, testing and any and all other items necessary for a completed system in accordance with the Plans shall be included. Payment shall represent full compensation for all labor, materials, equipment, restoration, and incidental items necessary to complete.

**BID ITEM NO. 11 - 36" STEEL CASING (JACK AND BORE)**

Payment for all work included, but is not limited to, under these Bid Items shall represent full compensation in accordance with the unit price bid per linear foot of standard steel casing for a jack and bore, including casing spacers, welds, end seals with stainless steel clamps, and hardware. All materials shall conform to the most updated version of the Manatee County Approved Product List. Bid Item also represents full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the casing pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement. No additional compensation shall be made for extensive dewatering or any water treatment services or equipment that may be required for

contaminated groundwater.

Measurement for the steel casing shall be per length foot as shown on the Plans. Excavation, including rock as necessary, bedding, backfill, dewatering, sheeting, testing and any and all other items necessary for a completed system in accordance with the Plans shall be included. Payment shall represent full compensation for all labor, materials, equipment, restoration, and incidental items necessary to complete.

#### **BID ITEM NO. 12 - 20" DI CLASS 250 PIPE**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter Ductile Iron Pipe (AWWA A21.50 and A21.51, and ANSI C150 and C151) as shown on the Contract Drawings and listed in the Bid Form. The thickness of pipe shall be pressure Class 250 for listed diameters 18" and larger. Measurement and Payment shall be made for the actual length of the listed diameter pipe installed and will represent full compensation for all labor, materials including pipe bell joint restraints, tracer wire, marking tape, excavation, including rock, dewatering, bedding, backfill, compaction, polyethylene wrapping, and equipment required to complete these Bid Items, including removal of existing abandoned pipelines and protecting and supporting power/light poles that may be in conflict with the pipeline construction. Payment shall also include locating of existing utilities in the project area. Included in these bid items are the removal and replacement of existing roadway signs, traffic signalization loops, irrigation systems required to construct the pipeline. No additional compensation will be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill materials, or for repair of any trench settlement.

#### **BID ITEM - HDPE DR 9 PIPE**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the HDPE DR 9 pipe by directional drill and associated connection pipe sections as shown on the Contract Drawings and listed on the Bid Form. As part of the testing methods for the HDPE pipe installation, the Contractor shall televise or pull a mandrel through the installed HDPE pipe to verify sound installation.

Measurement and Payment shall be made for the actual length of the pipe directional drilled and installed, and will represent full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing, pipe restraints (including MJ adapter with ductile iron gland and blue fluoropolymer coated high-strength low alloy steel conforming to AWWA C111 or 316 stainless steel hardware), end seals, grout, dual tracer wires, mud trailer, removal of drilling mud, and equipment required to complete these Bid Items. Payment shall also include locating of existing utilities and restoration in the project area. Included in these bid items are the removal and replacement of existing roadway signs, traffic signalization loops, and irrigation systems required to construct the pipeline. Payment shall also include removal of existing abandoned pipelines and protecting and supporting power/light poles that may be in conflict with the pipeline construction. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement.

BID ITEM	DESCRIPTION	UNITS
13	10" HDPE DR 9 Pipe	LF
48	8" HDPE DR 9 Pipe	LF

#### BID ITEM - DI CLASS 350 PIPE

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter Ductile Iron Pipe (AWWA A21.50 and A21.51, and ANSI C150 and C151) as shown on the Contract Drawings and listed in the Bid Form. The thickness of pipe shall be pressure Class 350 for listed diameters less than 18". Measurement and Payment shall be made for the actual length of the listed diameter pipe installed and will represent full compensation for all labor, materials including pipe bell joint restraints, tracer wire, marking tape, excavation, including rock, dewatering, bedding, backfill, compaction, polyethylene wrapping, and equipment required to complete these Bid Items, including removal of existing abandoned pipelines and protecting and supporting power/light poles that may be in conflict with the pipeline construction. Payment shall also include locating of existing utilities in the project area. Included in these bid items are the removal and replacement of existing roadway signs, traffic signalization loops, irrigation systems required to construct the pipeline. No additional compensation will be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill materials, or for repair of any trench settlement.

BID ITEM	DESCRIPTION	UNITS
14	8" DI Class 350 Pipe	LF
15	6" DI Class 350 Pipe	LF

#### BID ITEM - DUCTILE IRON FITTINGS, WATER

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing each ductile iron fitting (cement-lined) as shown on the Contract Drawings and listed on the Bid Form. Included in this Bid Item is the polyethylene wrapping of buried fittings and the painting of aboveground fittings per County standards. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, testing and disinfection required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
16	20" DI Fitting - 90 Deg. Bend, MJ (Water)	EA
17	20" DI Fitting - 45 Deg. Bend, MJ (Water)	EA
18	20" DI Fitting - 22.5 Deg. Bend, MJ (Water)	EA
19	20" DI Fitting - 11.25 Deg. Bend, MJ (Water)	EA
20	8" DI Fitting - 90 Deg. Bend MJ (Water)	EA
21	8" DI Fitting - 45 Deg. Bend MJ (Water)	EA
22	8" DI Fitting - 22.5 Deg. Bend MJ (Water)	EA

23	8" DI Fitting - 11.25 Deg. Bend MJ (Water)	EA
24	6" DI Fitting - 90 Deg. Bend, MJ (Water)	EA
25	8" X 20" DI Fitting - Reducer, MJ (Water)	EA
26	20" X 24" DI Fitting - Reducer, MJ (Water)	EA
27	8" X 10" DI Fitting - Reducer, MJ (Water)	EA
28	20" DI Fitting - Tee, MJ (Water)	EA
29	6" X 20" DI Fitting - Tee, MJ (Water)	EA
30	8" X 20" DI Fitting - Tee, MJ (Water)	EA
31	8" Foster Adapter (Water)	EA
32	24" HDPE MJ Adapter (Water)	EA
33	10" HDPE MJ Adapter (Water)	EA

**BID ITEM NO. 34- WATER MONITORING VALVE VAULT**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each valve vault that is installed including appurtenances and precast valve vault with aluminum access hatch as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, testing and disinfection required to complete this Bid Item.

**BID ITEM NO. 35 - 20" MICROMETER ULTRA MAG UM-020**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid for furnishing and installing the 20" McCrometer Ultra Mag UM20 as specified on the Contract Documents and listed on the Bid Form. Measurement and Payment shall be made for the meter installed and will represent full compensation for all labor, material, testing, and equipment required to complete this Bid Item.

**BID ITEM NO. 36 - MECHANICAL ELECTRIC ACTUATED GATE VALVE**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing the mechanical electric actuated gate valve as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for the valve installed and will represent full compensation for all labor and materials including 316 stainless steel hardware and non-rising stem, tracer wire, test station box, valve boxes or handwheels, testing and equipment required to complete this Bid Item.

**BID ITEM NO. 37 - PRESSURE MONITOR WITH SADDLE TAP**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing the pressure monitor with saddle tap as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for the pressure monitor installed and will represent full compensation for all labor and materials including testing and equipment required to complete this Bid Item.

~~BID ITEM NO. 38 – ELECTRICAL AND INSTRUMENTATION INTEGRATION FOR MONITORING ASSEMBLY (ADDENDUM NO.3)~~

~~Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the installation and programming of the electrical appurtenances, flow meter, pressure monitor, lightning protection, instrumentation, radio SCADA Integration, and associated telemetry, and coordination with power utility. Payment shall represent full compensation for all labor, materials, necessary equipment, programming, testing, conduit, conductors, flow meter controls, seals, rough in, pull wire, feeder, equipment rack, installation, start up, and incidentals necessary to complete the work, ready for approval and acceptance by the County. Measurement for payments of this lump sum bid item will be in accordance with the Contract Documents.~~

**BID ITEM - GATE VALVE**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each valve for furnishing and installing each 8-inch gate valve, box, cover, concrete pad, and tracer wire test station box, as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction, polyethylene wrapping all valves, testing and disinfection and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
39	20" DI Gate Valve (Wastwater)	EA
40	8" DI Gate Valve, MJ (Wastwater)	EA

**BID ITEM NO. 41 - ABOVE GROUND AIR RELEASE VALVE ASSEMBLY**

Payment for all work included in this Bid Item shall be at the applicable Contract unit price bid per each air release valve for furnishing and installing the above ground air release valve, 316 stainless steel backflush attachments, piping, fittings, box, cover, enclosure, concrete bollards, and concrete pad as shown on the details in the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction testing, disinfection and equipment required to complete these Bid Items.

**BID ITEM - CUT AND CONNECT TO EXISTING WATER MAIN**

Payment for all work included, but is not limited to, under these Bid Items shall represent full compensation in accordance with the unit bid price for each proposed connection to water mains. Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the bid price for all labor, additional necessary ductile iron fittings not shown in the Contract Drawings, thrust blocks, dead mans, excavation, dewatering, bedding, backfill, compaction, testing, and equipment required to complete this Bid Item.

BID ITEM	DESCRIPTION	UNITS
42	Cut and Connect to 8" Water Main	EA
43	Cut and Connect to 20" Water Main	EA

**BID ITEM NO. 44 - 6" FIRE HYDRANT ASSEMBLY**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each hydrant assembly, including 6" hydrant lead including hydrant elbow, ductile iron fitting, gate valve, box cover, concrete pads, restraining rods and/or thrust blocks, as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, polyethylene wrapping all buried pipe, fittings, and valves, testing and disinfection required to complete this Bid Item. Payment shall also include removal of existing hydrant assembly.

**BID ITEM - PVC C900 PIPE**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter PVC water main (AWWA C900-16 DR 18) pipe as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the actual length of the listed diameter pipe and installed and will represent full compensation for all labor, materials including pipe bell joint restraints, tracer wire, marking tape, excavation, including rock, dewatering, bedding, backfill, compaction, and equipment required to complete these Bid Items, including removal of existing abandoned pipelines and protecting and supporting power/light poles that may be in conflict with the pipeline construction. Payment shall also include locating of existing utilities in the project area. Included in these bid items are the removal and replacement of existing roadway signs, traffic signalization loops, and irrigation systems required to construct the pipeline. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement.

BID ITEM	DESCRIPTION	UNITS
46	18" PVC C900 Pipe	LF
47	6" PVC C900 Pipe	LF

**BID ITEM - DUCTILE IRON FITTINGS, WASTEWATER**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing each listed ductile iron fitting (Permax CTF or Tnemec Perma-Shield Series 431 epoxy lined) as shown on the Contract Drawings and listed on the Bid Form. Included in this Bid Item is the polyethylene wrapping of buried fittings and the painting of aboveground fittings per County standards. Payment will be made for each fitting installed and will represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, testing and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
49	18" DI Fitting - 90 Deg. Bend, MJ (Wastewater)	EA

50	18" DI Fitting - 45 Deg. Bend, MJ (Wastewater)	EA
51	18" DI Fitting - 22.5 Deg. Bend, MJ (Wastewater)	EA
52	18" DI Fitting - 11.25 Deg. Bend, MJ (Wastewater)	EA
53	6" DI Fitting - 90 Deg. Bend, MJ (Wastewater)	EA
54	6" DI Fitting - 45 Deg. Bend, MJ (Wastewater)	EA
55	6" DI Fitting - 11.25 Deg. Bend, MJ (Wastewater)	EA
56	18" X 20" DI Fitting - Reducer, MJ (Wastewater)	EA
57	6" X 8" DI Fitting - Reducer, MJ (Wastewater)	EA
58	6" X 18" DI Fitting - Tee, MJ (Wastewater)	EA
59	18" DI Fitting Tee, MJ	EA
60	20" HDPE MJ Adapter (Wastewater)	EA
61	8" HDPE MJ Adapter (Wastewater)	EA
67	18" DI FLG Adapter (Wastewater)	EA
72	18" DI Fitting - Tee, FLG (Wastewater)	EA
73	18" DI Fitting - 90 Deg. Bend, FLG (Wastewater)	EA

#### BID ITEM - PLUG VALVE

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each valve for furnishing and installing each plug valve, box, cover, concrete pad, and tracer wire test station box, as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction, polyethylene wrapping all valves, testing and disinfection and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
62	18" DI Plug Valve, MJ	EA
63	6" DI Plug Valve, MJ	EA
74	18" DI Plug Valve, FLG	EA

#### BID ITEM - CUT AND CONNECT TO EXISTING FORCE MAIN

~~Payment for all work included, but is not limited to, under these Bid Items shall represent full compensation in accordance with the unit bid price for each proposed connection to force mains. Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the bid price for all labor, additional necessary ductile~~

~~iron fittings not shown in the Contract Drawings, thrust blocks, dead mans, excavation, dewatering, bedding, backfill, compaction, testing, and equipment required to complete this Bid Item.~~ Payment for all work included, but is not limited to, under these Bid Items shall represent full compensation in accordance with the unit bid price for each proposed connection to force mains. Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the bid price for all labor, additional necessary ductile iron fittings not shown in the Contract Drawings, flow-through line stops, temporary piping, thrust blocks, dead mans, excavation, dewatering, bedding, backfill, compaction, testing, and equipment required to complete this Bid Item." (Addendum No. 3)

BID ITEM	DESCRIPTION	UNITS
64	Cut and Connect to 6" Force Main	EA
65	Cut and Connect to 18" Force Main	EA

**BID ITEM NO. 66 - FORCE MAIN PRESSURE MONITORING VALVE VAULT**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each valve vault that is installed including appurtenances and precast valve vault with aluminum access hatch as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, testing and disinfection required to complete this Bid Item.

**BID ITEM NO. 68 - 18" MICROMETER ULTRA MAG UM-018**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid for furnishing and installing the 18" McCrometer Ultra Mag UM18 as specified on the Contract Documents and listed on the Bid Form. Measurement and Payment shall be made for the meter installed and will represent full compensation for all labor, material, testing, and equipment required to complete this Bid Item.

**BID ITEM NO. 69 - 2" STAINLESS STEEL PRESSURE GAUGE WITH SADDLE TAP**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing the 2-inch stainless steel pressure gauge with saddle tap as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for the pressure gauge installed and will represent full compensation for all labor and materials including testing and equipment required to complete this Bid Item.

**BID ITEM NO. 70 - ELECTRICAL AND INSTRUMENTATION INTEGRATION FOR MONITORING ASSEMBLY**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the installation and programming of the electrical appurtenances, flow meter, lightning protection, instrumentation, and associated telemetry, and coordination with power utility. Payment shall represent full compensation for all labor, materials, necessary equipment, programming, testing, conduit, conductors, flow meter controls, seals, rough in, pull wire, feeder, equipment rack, installation, start up, and incidentals necessary to complete the work, ready for approval and acceptance by the County. Measurement for payments of this lump sum bid item will be in accordance with the Contract Documents.

**BID ITEM NO. 71 - FORCE MAIN BYPASS VALVE VAULT**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each valve vault that is installed including appurtenances and precast valve vault with a aluminum access hatch as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, testing and disinfection required to complete this Bid Item.

**BID ITEM NO. 75 - 3.5" OD DURALINE SMOOTHWALL HDPE SDR 9 CONDUIT**

Payment for all work included, but is not limited to, under these Bid Items shall represent full compensation in accordance with the unit price bid per linear foot of standard Duraline smoothwall HDPE SDR 9 conduit in accordance with FDOT Standard Plans, Index 630 to be pulled along with the Force Main. Bid Item also represents full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the casing pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement. No additional compensation shall be made for extensive dewatering or any water treatment services or equipment that may be required for contaminated groundwater.

**BID ITEM NO. 76 - FIBER OPTIC SPLICE BOX (30"X60"X48") WITH HAND LINE**

Payment for all work included in this Bid Item shall be at the applicable Contract unit price bid per each fiber optic splice box for furnishing and installing pull and splice boxes in accordance with FDOT Standard Plans, Index 635. Ensure pull and splice boxes are sized for amount of cable to be placed inside. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction testing, and equipment required to complete these Bid Items.

**BID ITEM NO. 77 - GROUT FILL AND ABANDON EXISTING 6" WATER MAIN AND 8" FORCE MAIN**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the unit price bid per cubic yard of grout fill that is required to abandon all of the existing pipelines to be deactivated. Payment will include all equipment, labor, fittings, temporary connections, line-stops, and appurtenances required to abandon the existing force mains in accordance with County standards.

**BID ITEM NO. 78 - ABANDON EXISTING 20/24" WATER MAIN AND 18/20" FORCE MAIN**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid required to abandon all of the existing pipelines to be deactivated. Payment will include all equipment, labor, fittings, temporary connections, line-stops, and appurtenances required to abandon the existing force mains in accordance with County standards.

## **BID ITEM NO. 79 - FULL ROAD RESTORATION**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price per square yards (Addendum No. 3) for full road restoration per Contract drawing specifications and limits as listed on the Bid Form. Payment shall represent full compensation for all labor, materials and equipment for cutting the edges of existing roadway, compacting subgrade, furnishing and installing the crushed concrete, asphaltic concrete and all incidentals necessary to complete the full roadway restoration as shown on the Contract Drawings and included in the Specifications, all ready for approval and acceptance by the County.

~~Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents. (Addendum No. 3)~~

## **BID ITEM NO. 80 - SIDEWALK & CONCRETE DRIVEWAY RESTORATION**

Payment for all work included under this Bid Item will be made at the Contract unit price bid per square yard of concrete sidewalk installed as shown in the Contract Drawings and as listed on the Bid Form. Measurement will be based on the actual number of square yards of concrete sidewalk installed, tested, completed, and approved. ~~No payment for restoration of a private driveway within or outside the right-of-way shall be made under this Bid Item. (Addendum No. 3)~~ Sidewalks shall meet the requirements of the Manatee County Transportation Design Standards and the Specifications herein. Payment shall represent full compensation for all labor, materials, and equipment for cutting the edges of existing driveways, compacting subgrade, furnishing, and installing the concrete, asphalt, brick, or shell, including all incidentals necessary to complete the driveway restoration as shown on the Contract Drawings and included in the Specifications, all ready for approval and acceptance by the County. Driveways shall be repaired to match existing thicknesses or thicknesses specified in the Contract documents, whichever is greater.

## **BID ITEM NO. 81 - REMOVE AND REPLACE CURB**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per linear foot for removal of existing curbing and for furnishing and placing the same type of curb. Measurement will be per actual number of linear feet of curbing installed. Payment shall represent full compensation for removal of existing curb and all labor, material, and equipment for compacting subgrade, forming, furnishing, placing the concrete, and finishing as specified and all incidentals necessary for completion of this Bid Item, ready for approval and acceptance by the County.

## **BID ITEM NO. 82 - MILL AND RESURFACING**

Payment for all work included in these Bid Items will be made at the applicable Contract unit price listed below for milling and resurfacing per the Contract Documents limits and specifications as listed on the Bid Form. Payment shall represent full compensation for all labor, materials and equipment for milling and resurfacing all roadway area not covered under the full restoration bid item No. 55, and all incidentals necessary to complete road restoration on the frontage of the site from property line to property line as shown on the Contract

Drawings and included in the Specifications, all ready for approval and acceptance by the County.

#### **BID ITEM NO 83 - SODDING**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per square yard for furnishing and installing sodding as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

#### **BID ITEM NO. 84 - WATER SERVICE REPLACEMENT**

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid for each service type for furnishing and installing the listed water service lines, both short and long side, as listed on the Bid Form. Included in these bid items is the removal, relocation, and reconnection of water meter and meter boxes that do not meet the County standards (refer to County details). Included in this bid item is the installation of a new backflow prevention assembly downstream of the meter installed per the County details. If the relocated meter was connected to an existing backflow preventer assembly, the County inspector will determine if the assembly is acceptable to be reused. The meter and backflow prevention assembly proposed locations shall be coordinated with the County Inspector and property owner in order to meet County standards. All pipe, fittings, connections, concrete pads, and landscaping restoration required to perform the complete removal, relocation, new installations, and reconnections of the water meter, meter box, and backflow preventer assembly to the private property service line are included in this bid item.

Water service casing is required on all roadway crossings and shall extend outside pavement edge per County standard details. Contractor shall replace all water services from water main to the meter, including service saddle, corporation stop, piping, and ancillary fittings. The new service saddle port shall be aligned over the already existing tap of the water main. Included in these bid items are reconnections and new installations of the meter boxes, backflow preventer assemblies, and private side plumbing. Contractor shall employ a licensed plumber for any work within private property and shall pay for any applicable permit fees to complete the work. Payment shall represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, testing and disinfection and equipment required to complete these Bid Items.

#### **BID ITEM NO. 85 - TREE AND SHRUB REPLACEMENT**

Payment for all work included in this Bid Item shall be a lump sum of per each all trees and shrubs (Addendum No. 3) removed and replaced/relocated as shown in the construction plans. Payment shall represent full compensation for all labor, excavation, compaction, material, preparation, installation, and equipment required to complete this Bid Item.

#### **BID ITEM NO. 86 - CONTRACT CONTINGENCY**

Payment for all work under this Bid Item shall be made only at the County's discretion. This Bid Item shall not exceed 10% of the Bidders Total Bid. The Bidder shall calculate and enter a dollar amount for this Bid Item.