

SECTION 012000

MEASUREMENT AND PAYMENT

Applies only to Collier County Public Utilities Projects or Works and Utilities Portions of Collier County Transportation Projects, but not to Private Developments.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Explanation and Definitions
- B. Measurement
- C. Payment
- D. Schedule of Values

1.2 EXPLANATION AND DEFINITIONS

- A. The following explanation of the Measurement and Payment for the Bid Schedule items is made for information and guidance. The omission of reference to any item in this description shall not, however, alter the intent of the Bid Schedule or relieve the CONTRACTOR of the necessity of furnishing such as a part of the Contract. Measurement and payment for all Contract Items shall made be in accordance with this section.

1.3 SPECIAL CONDITIONS

- A. Owner will provide the following permits: FDEP main extension and Collier County Right-of-Way permit, however, contractor is responsible for payment of any sidewalk or lane closure fees.
- B. Owner has pre-purchased some necessary materials, a list of which is below. The Contractor will be responsible for providing any necessary fittings, pipe, appurtenances, and all required materials not included in this list.

These items will be furnished by Collier County.

Description	Quantity
36 PEF MJ PRESSURE VALVE E/L GBNT 316 SS*X	2
36 MJ C153 P-401 TEE L/A	2
3" HTEC 986 316SS AIR RELEASE VALVE	1
36X2 MJ C110 P-401 TAP CAP L/A	1

- C. The contractor is to use the County Owned Right-of-Way and approved County Utility Easements as a staging and storage area. Contractor shall coordinate with Florida Power & Light for activities within the FPL easement.
- D. The contractor is responsible for the delivery of the material to the storage area and for the transportation from the storage area to the project area.

- E. The complete force main will be pressure tested to 100 psi.
- F. All ARV's will be required to use fused saddles.
- G. Portions of the work may require dewatering. Contractor is required to apply to SFWMD for a no notice dewatering permit if dewatering is needed.
- H. Contractor is required to maintain red line record drawings which detail all underground construction updated on a daily basis during periods of substantial construction. This information shall be submitted on each pay application for review and approval by engineer. This is in addition to the surveyed record drawing requirement.

#### 1.4 MEASUREMENT

- A. The quantities set forth in the Bid Schedule are approximate and are given to establish a uniform basis for the comparison of bids. The COUNTY reserves the right to increase or decrease the quantity of any class or portion of the work during the progress of construction in accordance with the terms of the Contract.

#### 1.5 PAYMENT

- A. Make payment for the items listed on the Bid Schedule on the basis of the work actually performed and completed, such work including but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, clean up, restoration of disturbed areas, and all other appurtenances to complete the construction and installation of the work as shown on the drawings and described in the specifications.
- B. Unit prices are used as a means of computing the final figures for bid and Contract purposes, for periodic payments for work performed, for determining value of additions or deletions and wherever else reasonable.

#### 1.6 SCHEDULE OF VALUES

- A. Approval of Schedule: Submit for approval a preliminary schedule of values, in duplicate, for all of the Work. Prepare preliminary schedule in accordance with the Supplemental Terms and Conditions. Submit preliminary schedule of values within 10 calendar days after the Effective Date of the Agreement. Submit final schedule of values in accordance with the Supplemental Terms and Conditions.
- B. Format: Utilize a format similar to the Table of Contents of the Project Specifications. Identify each line item with number and title of the major specification items. Identify site mobilization, bonds and insurance. Include within each line item, a direct proportional amount of Contractor's overhead profit.
- C. Revisions: With each Application for Payment, revise schedule to list approved Change Orders.

#### 1.7 Post Construction Video

- A. In addition to a pre-construction video, the contractor will be required to provide a post construction video showing the temporary construction easement area (staging area) and final improvements within the right-of-way. This video will need to be performed and delivered sometime between substantial and final completion.

## PART 2 PRODUCTS - Not Used

## PART 3 EXECUTION

### 3.1 MEASUREMENT AND PAYMENT

1. Make payment on the basis of work actually performed completing each item in the Bid, such work including, but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, cleanup, and all other appurtenances to complete the construction and installation of the work to the configuration and extent as shown on the drawings and described in the specifications. Payment for each item includes compensation for cleanup and restorations. Cost of cleanup and surface restorations (including pavement replacement) will be considered as the percentage retained in accordance with the Contract Documents, and complete payment will not be made until cleanup, restorations and as-builts are completed.

### **PART 1: SITE WORK**

1. **Mobilization / General Conditions:** Payment for mobilization and demobilization will be made at the Contract lump sum price in accordance with Collier County specifications. The contractor will be responsible for erecting one (1) 48" x 96" project sign (template attached) prior to commencing construction and removal at final completion. Signage location will be determined at the project kick-off meeting. The permit board shall be attached to the project sign.
2. **Silt Fence:** Payment for silt fence will be made at the Contract unit price on a linear foot basis. This item includes maintenance for the duration of construction activities, obtaining an NOI with FDEP, and NPDES monitoring and reporting.
3. **Drop Inlet Sediment Barrier:** Payment for drop inlet sediment barrier will be made at the Contract unit price for each installation. This item includes maintenance for the duration of construction activities, obtaining an NOI with FDEP, and NPDES monitoring and reporting.
4. **Pre/Post-Construction Video:** Payment for providing Pre-Construction Video will be made at the Contract lump sum price in accordance with Collier County specifications. Pre-construction still pictures will be taken as necessary to document pre-construction conditions including but not limited to sod type, landscaping, and curb/pavement condition. Copies of the Post Construction recordings will need to be provided to Collier County in between substantial completion and final completion. 50% of the lump sum price will be paid once the Pre-Construction recordings are approved by the EOR and the remaining 50% upon submittal and acceptance of the post construction video.
5. **Maintenance of Traffic:** Payment for maintenance of traffic in accordance with the Collier County Maintenance of Traffic Policy will be made for at the Contract lump sum price. Line item qualifies for payment if MOT is installed and maintained per approved ROW permit and/or MUTCD. 50% of the lump sum price will be paid at project commencement and the remaining 50% upon issuance of the substantial completion certificate.
6. **Survey Layout & Record Drawings:** Payment for providing all survey and record drawings will be made at the Contract lump sum price in accordance with the Collier County specifications.

7. **Private Utility Locates/Potholing:** Payment will be made at the Contract lump sum price. This item includes any activities necessary to locate existing utilities beyond those locations provided by public utility services.
8. **Removal of Existing Concrete:** Payment for concrete sidewalk and curb removal will be made at the Contract unit price on a square yardage basis. Removal of existing concrete sidewalk is to include proper disposal.
9. **Removal Existing Asphalt:** Payment for asphalt will be made at the Contract unit price on a square yardage basis. Asphalt removal to include removal of any base layer to properly perform an open trench installation. Removal of existing asphalt is to include proper disposal.
10. **Clearing and Grubbing:** Payment for clearing and grubbing will be made at the Contract unit price on an acreage basis. Removal of existing vegetation, bushes, and trees is to include proper disposal.
11. **Geotechnical Testing:** Payment will be made at the Contract lump sum price. Geotechnical testing to include compaction, density, and soils testing as required by the contract documents.
12. **Dewatering:** Payment will be made at the Contract lump sum price. Line item includes labor and equipment to abide by the permit's conditions and stipulations, including any monitoring or reporting. Obtaining the de-watering permit from the South Florida Water Management District will be performed by the client and/or a designated representative. Fines accrued by failing to follow permit stipulations and conditions will be paid by the contractor.
13. **Sod:** Payment will be made at the Contract lump sum price. Sod material to be purchased, delivered, and installed by contractor. Sod type to be bahia unless approved equal. Line item to include watering and fertilizer until established. Final payment for sod will not be made until final acceptance by the owner and Right-of-Way Department.
14. **Underground Electric and Fiber Optic Relocation:** Payment will be made at the Contract lump sum price. Line item includes equipment, labor, and material costs needed to relocate the underground electric, light pole, fiber optic line and utility boxes. Contractor is responsible for coordination with utility providers and County Traffic Operations. Contractor is responsible for replacing any damaged or mal-functioning equipment before project close-out.

## **PART 2: PAVEMENT AND CONCRETE**

15. **Sidewalk – 6" Concrete:** Payment for installing concrete sidewalk will be made at the Contract unit price per square yardage. Line item includes equipment, labor, and material costs to restore damaged or removed sidewalk to a condition that complies with the plans and specifications. Final payment will be made upon acceptance by the owner, EOR, and the Right-of-Way Department.
16. **12" Stabilized Sub-Grade:** Payment for installing subgrade will be made at the Contract unit price per square yardage price to a depth of 12". Stabilized sub-grade to be constructed as part of trench restoration.
17. -18. **Asphalt:** Payment for installing bituminous and concrete asphalts will be made at the Contract unit price per square yardage price. Asphalt to be constructed as part of trench restoration within St. Andrew's Right-of-Way and Rattlesnake Hammock Road. Line item to include striping and traffic signage restoration in compliance with FDOT standards and specifications to match the previously permitted conditions.

19.-21. **Restoration of Curbing:** Payment for installing curbing with bituminous striping in accordance with FDOT will be made at the Contract unit price per lineal foot. Curbing to be constructed as part of the roadway restoration within St. Andrew's and Rattlesnake Hammock Road's Right-of-Way.

### **PART 3: SANITARY UTILITIES**

22.-23. **Connect to Existing Force Main and IQ Main:** Payment for connecting to existing mains will be made at the appropriate Contract unit price for each connection to an existing main acceptably installed. This item includes all labor and materials to install all necessary pipe, fittings, connections, protection of existing facilities, pipe bedding, compaction, testing, cleanup and all other work for a complete installation according to the details shown in the Plans and Collier County Standards. Pipe material to be purchased by the Contractor. The Contractor will be responsible for providing necessary fittings, appurtenances, and materials not included in the County's list of pre-purchased materials. The Contractor is responsible for receipt and storage of the County items. The Contractor will furnish labor and equipment necessary to load/unload the pipe at time of delivery and to/from storage as necessary. Contractor shall provide imported backfill, if needed.

Line item 22 to include price to properly abandon and grout in place the existing length of force main that occurs under the intersection of Rattlesnake Hammock and St. Andrews Boulevard.

Line item 23 to include the material and labor to install a line stop on the existing IQ Main.

24.-25. **Open Cut Installation:** Payment for installing force main pipelines by open cut will be made at the Contract unit price per lineal foot for the pipe in place. This item includes all labor and equipment for excavation and restoration of open cut trenching per County specifications not included in other line items, all necessary fittings, pipe coatings and linings, labor, equipment for the laying of the pipe, including vertical deflections, compaction/density testing, pipe bedding, backfilling, sheeting, restrained joint piping, clamps, harnessing, and adapters. Installation also includes excavation of all material encountered, including rock, and backfill. Line items scope also includes required pressure tests and coordination with other contractors, stubs and valves for future connections to existing pipes, clean-up, temporary facilities for blow-offs and testing. Measure pipe to the nearest foot along the centerline including the lengths of valves and fittings. Measure linear footage horizontally. Measure cuts from proposed grade to the invert elevation of the pipe. Pipe material to be purchased by the Contractor for this item. The Contractor will be responsible for providing necessary fittings, appurtenances, and materials not included in the County's list of pre-purchased materials. The Contractor will furnish labor and equipment necessary to deliver the pipe and appurtenances to the site and to/from storage as necessary.

Included within the open cut installation is the labor costs associated with the installation of plug valves and a gate valve for the IQ main deflection. Payment for installing valves will be made at the Contract unit price for each valve acceptably installed. This item includes all labor, material, and equipment for the installation of valve, box and stem and valve box extensions. This item also includes the installation of base material below the valve and mechanical joint cap in accordance with the details shown in the Plans and Collier County Standards. Valves and mechanical joint cap not included in the list of County purchased materials to be purchased by

the Contractor for this item. The Contractor will be responsible for providing necessary fittings, appurtenances, and materials not included in the County's list of pre-purchased materials. The Contractor is responsible for receipt and storage of any County purchased materials. The Contractor will furnish labor and equipment necessary to load/unload the valves at time of delivery and to/from storage as necessary. Contractor shall provide imported backfill, if needed.

26. -27. **IQ and Force main Air release Valve:** Payment for installing air release valves will be made at the Contract unit price for each air release valve acceptably installed. This item includes all labor and equipment for installation of valve, box and stem and valve box extensions. This item also includes the installation of base material below the valve in accordance with the details shown in the Plans and Collier County Standards. Air Release Valve material to be purchased by Collier County for this item. The Contractor will be responsible for providing necessary fittings, appurtenances, and materials not included in the County's list of pre-purchased materials. The Contractor will furnish labor and equipment necessary to load/unload the ARVs at time of delivery and to/from storage as necessary. Contractor shall provide imported backfill, if needed.

All ARVs to be installed in green space.

28. **Utility Marker Balls:** Payment for utility marker balls will be made at the Contract lump sum price. Marker balls to be provided by the Contractor. Contractor to install marker balls on top of the proposed pipe alignment. This line item also includes testing of placed marker balls before project close-out.
29. **Exploration/Video of Existing 36" Forcemain:** Payment for video exploration of the existing 36" forcemain will be made at the Contract Unit lump sum price. Contractor to explore and document the conditions of the existing 36" force main tie in point under St. Andrews Boulevard. An experienced utility inspection company is to provide a report and video of the conditions/findings to the client and engineer of record.

#### **PART 4: LANDSCAPE**

30. – 31. **Landscape and Irrigation:** Payment for Landscape and Irrigation restoration will be made at the Contract Unit Lump Sum price. The contractor is to relocate conflicting existing trees and irrigation outside of the proposed force main's alignment. All vegetation within the public Right-of-Ways and within the property boundaries of the nearby Lely communities are to be restored to their original conditions.

As a condition of the Right-of-Way permit, the contractor is to have a certified arborist on-site during tree removal, re-planting, or re-location. The certified arborist's credentials are to be submitted to the owner and engineer during the initial stages of the project.

#### **PART 5: ALLOWANCE**

**Allowance:** An allowance is established to cover unanticipated costs associated with the general requirements. Use of Allowance must be approved by the Collier County prior to execution of the work. All work must be billed on a time and material, lump sum, or unit price basis as agreed upon by the Contractor, County, and Engineer of Record.

END OF SECTION