

June 10, 2019

**BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
ADDENDUM NO. 1 / IFB NO. Y19-762-TA**

RIO PINAR LAKES FORCE MAIN IMPROVEMENTS

REVISED BID OPENING DATE: ~~June 11, 2019~~ JUNE 18, 2019

This Addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to and shall take precedence over the original documents. Additions are indicated by underlining, deletions are indicated by ~~striketrough~~.

A. BID OPENING DATE IS CHANGED FROM ~~JUNE 11, 2019~~ TO JUNE 18, 2019 AT 2:00 P.M.

B. CLARIFICATIONS

1. Q: Is the road closure for Palm Creek Ave. approved with Public Works for the jack and bore?

A: As stated in General Note No. 39; Sheet U-101, Note No. 3; and within Specification Section 01010, *Summary of Work*, Orange County Public Works has provided preliminary approval for the closure of Palm Creek Ave. between Curry Ford Rd. and Altavan Ave. for construction of the bore and jack. The Contactor is required to prepare and submit a maintenance of traffic plan to OCPW. Palm Creek Ave. cannot be closed without an approved MOT Plan. At a minimum, variable message boards and detour route signage will be required as part of the MOT Plan.

2. Q: Due to the small amount of soil cement can we substitute with crushed concrete or limerock or 8" concrete base?

A: The project shall be bid in accordance with the Construction Drawings and Specifications. The selected Contractor may propose a change of materials after award of the Contract in accordance with the terms and conditions of the bid.

3. Q: The plans show 4 sample collection joints to the Owner but the bid sheet only has 2?

A: There is an error in the Bid Schedule. The correct quantity for Bid Item No. 29, *Sample Collection for Pipelines (Joints to Owner)* is "4". The Bid Schedule will be reissued with this Addendum.

4. **Q: Can a line item be added for the replacement of underdrain?**
- A: Removal and replacement of underdrain is paid for under Specification Section 01025 *Measurement and Payment*, Bid Items 31-33.
5. **Q: Can a line item be added for the replacement of striping?**
- A: Pavement markings, both temporary and permanent as required by Orange County Public Works, are included under Specification Section 01025 *Measurement and Payment*, Bid Items 11-13.
6. **Q: Per the sequence of work can you please show a detail where the line stop and cap at Station 79+41?**
- A: There is an error on the "Sequence of Work", sheet G-103. The referenced Line Stop and Cap are at Station 75+14.
7. **Q: Can you please provide some more clarification on the sequence of work in relation to each lift station and bypassing?**
- A: During the Phase 1 Work, PS #3266 and PS #10821 will continue to pump wastewater to the North as they currently operate. Upon completion of the proposed force main from Curry Ford Road to PS #3266, PS #3266 discharge piping will be removed from the existing force main and connected to the newly completed proposed force main (redirecting the wastewater flow to the South), Phase 2 Work. Adequate primary and backup bypass equipment to maintain service as described in Specification Section 01516 - *Collection System Bypass* is required. Upon completion of the proposed force main from PS #3266 to PS #10821, PS #10821 discharge piping will be removed from the existing force main and connected to the newly completed proposed force main (redirecting the wastewater flow to the South), Phase 3 Work. Adequate primary and backup bypass equipment to maintain service as described in Specification Section 01516 - *Collection System Bypass* is required. In accordance with Project General Note No. 25, the shutdown shall be coordinated with the County representative a minimum of 7 days prior to the shutdown.
8. **Q: Do both sections need to be approved by DEP since one is a line replacement?**
- A: Yes, the entire 4,000 feet of proposed force main must be cleared for use by FDEP. We anticipate this project requiring two (2) FDEP Clearances, a Partial Clearance and a Final Clearance. Additionally, the replacement segment has been increased from a 6-inch FM to a 12-inch FM.

9. Q: **Is a Project Identification Sign required for this project? If so, how many?**
- A: Project identification signs are required for this project per Specification Section 01580 – *Project Identification and Signs*. In accordance with section 1.03, linear projects require signs at each end of the work. Therefore, a minimum of two (2) signs shall be required, one at each end of the work zone on Palm Creek Ave. and on Rio Pinar Lakes Boulevard.
10. Q: **As we are planning to bid this project under Utility Systems Construction, LLC, will we be able to utilize our experience for projects done under PWC Joint Venture? Please note, PWC Joint Venture is comprised of PWC and Utility Systems Construction, LLC.**
- A: The bidder may submit previous successful project experience completed as part of a Joint Venture for previous successful project experience submitted for a member of the Joint Venture team. It is the Contractor's responsibility to make it clear on the submission that work was completed as part of a Joint Venture and that the Construction Firm submitting the work experience was the construction firm that constructed the reference element. It is also the Contractor's responsibility to notify the provided references of the work experience the Contractor is submitting. The previous successful project experience must be verifiable.
11. Q: **Are we required to follow the Sequence of Work exactly as described?**
- A: No, the "Sequence of Work" is a general construction guideline. The awarded Contractor may propose any work sequence he chooses. A Progress Schedule depicting the approach to prosecution and completion of the Work is required in accordance with Specification Section 01310 *Progress Schedules*.
12. Q: **Is the cost for sod replacement included within the cost of constructing the force main or as a separate bid item?**
- A: The cost of labor and materials for replacing sodding to be included with construction of the force main. Specification Section 01025 *Measurement and Payment* and the Bid Schedule are revised and reissued with this Addendum.

B. IFB-Y18-717-TA BID SCHEDULE

Delete: Delete the ~~IFB-Y19-762-TA Bid Schedule~~ in its entirety.

Add: Add in its place IFB-Y19-762-TA Bid Schedule, attached and labelled this Addendum No. 1.

C. PROJECT MANUAL

SPECIFICATION SECTION 01025 – MEASUREMENT AND PAYMENT

Delete: Delete ~~Specification Section 01025 – Measurement and Payment~~ in its entirety.

Add: Add in its place “Specification Section 01025 – Measurement and Payment”, attached and labelled this Addendum No. 1.

D. PROJECT DRAWINGS

SHEET G-103, SEQUENCE OF WORK, No. 1, Phase 2 Work

Delete: Delete ~~INSTALL LINE STOP AND CAP @ STA. 79+41.~~ in its entirety.

Add: Add in its place the following: INSTALL LINE STOP AND CAP @ STA. 75+14.

E. ACKNOWLEDGEMENT OF ADDENDA

- a. The Proposer shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of proposal.
- b. All other terms, conditions and specifications remain the same.
- c. Receipt acknowledged by:

Authorized Signature

Date Signed

Title

Name of Firm

**To the Board of County Commissioners
Orange County, Florida**

The Undersigned, hereinafter called "Bidder", having visited the site of the proposed project and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the Contract Form, General Conditions, Supplementary Conditions, Plans and Specifications and other Contract Documents, with the Bond requirements herein, proposes to furnish all labor, materials, equipment and other items, facilities and services for the proper execution and completion of: **RIO PINAR LAKES FORCE MAIN IMPROVEMENTS** in full accordance with the drawings and specifications prepared in accordance with the Contract Documents and, if awarded the Contract, to complete the said work within the time limits specified for the following ESTIMATED TOTAL BASE BID.

It is understood that this is a unit price Contract and the resultant Contract will contain estimated quantities, unit prices, extended totals and that the Estimated Total Base Bid is the sum of all pay item totals from the schedule of prices, REVISED Pages D-3 through D-4.

The Contract resulting from this solicitation is based on estimated quantities. The contractor shall only be paid for materials installed in the work in accordance with the applicable unit prices for the specific work element (line item). No payment shall be made for excess materials delivered to the jobsite and not incorporated into the work. Therefore, it shall be the contractor's responsibility to determine the quantities of materials necessary to perform the project to its completion.

ESTIMATED TOTAL BASE BID:

_____ DOLLARS
(In Words)

\$ _____

In the event the Contract is awarded to this Bidder, he/she will enter into a formal written agreement with the County in accordance with the accepted bid within ten (10) calendar days after said Contract is submitted to him/her and will furnish to the County a Contract Payment and Performance Bond with good and sufficient sureties, satisfactory to the County, in the amount of 100% of the accepted bid. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages.

Failure of the Bidder to provide pricing for all unit priced items and/or the Base Bid and ALL requested additive/deductive bid items, or alternate bids shall be cause for rejection of the bid as non-responsive.

Addendum 1, REVISED IFB-Y19-762-TA Bid Schedule

| ITEM NUMB ER | DESCRIPTION | EST'D. QTY. | UNITS | UNIT PRICE | TOTAL PRICE |
|--------------------|--|----------------|-------|---------------|----------------|
| 1 | Mobilization, Demobilization, Bonds, and Permits (not to exceed 5% of the total of all bid items line items 7-44) | 1 | LS | | |
| 2 | Preconstruction Audio-Video Documentation | 1 | LS | | |
| 3 | Indemnification | 1 | LS | 100.00 | 100.00 |
| 4 | Project Record Documents (a minimum of 1% of the total of all bid items 7-44) | 1 | LS | | |
| 5 | Maintenance of Traffic | 1 | LS | | |
| 6 | Public Information Officer | 1 | LS | | |
| 7 | Erosion and Sediment Control | 1 | LS | | |
| 8 | Stabilized Subgrade (12" thick) | 66 | SY | | |
| 9 | Concrete Base (8" thick) | 212 | SY | | |
| 10 | Soil Cement Base (6" thick) | 67 | SY | | |
| 11 | Temporary Paving (cold mix overlay) (1-1/2" thick) | 279 | SY | | |
| 12 | Milling and Resurfacing (1-1/2" thick) | 1,011 | SY | | |
| 13 | Asphalt Pavement (1 1/2" thick) | 476 | SY | | |
| 14 | Concrete Pavement Replacement (4" thick) | 1,526 | SY | | |
| 15 | Concrete Pavement Replacement (6" thick) | 1,125 | SY | | |
| 16 | Construct Public Sidewalk ADA Ramp | 1 | EA | | |
| 17 | Concrete Paver Replacement | 18 | SY | | |
| 18 | Concrete Curb and/or Curb & Gutter Replacement | 169 | LF | | |
| 19 | Remove and Replace Existing Crape Myrtle Trees | 12 | EA | | |
| 20 | Bypass Pump Station and Bypass Piping (<1,000 gpm) (PS# 3266) | 1 | LS | | |

ADDENDUM 1 REVISED IFB-Y19-762-TA BID SCHEDULE CONTINUED

| ITEM NUMB ER | DESCRIPTION | EST'D. QTY. | UNITS | UNIT PRICE (FIGURES) | TOTAL PRICE (FIGURES) |
|---|---|----------------|-------|----------------------------|-----------------------------|
| 21 | Bypass Pump Station and Bypass Piping (<1,000 gpm) (PS# 10821) | 1 | LS | | |
| 22 | Water Main Bypass and Replacement | 1 | LS | | |
| 23 | Abandon-In-Place 8" Pipe | 72 | LF | | |
| 24 | Remove Existing 4" Pipe | 14 | LF | | |
| 25 | Remove Existing 6" Pipe | 2,319 | LF | | |
| 26 | Remove Existing 8" Pipe | 59 | LF | | |
| 27 | Sample Collection for Pipelines (Joints to Owner) | 4 | EA | | |
| 28 | Water Main w/fittings & RJs (8" diameter, DI) | 126 | LF | | |
| 29 | Forcemain w/fittings & RJs (4" diameter, PVC) | 10 | LF | | |
| 30 | Forcemain w/fittings & RJs (6" diameter, PVC) | 6 | LF | | |
| 31 | Forcemain w/fittings & RJs (12" diameter, PVC) | 4,087 | LF | | |
| 32 | Plug Valve with Box (4" diameter) | 1 | EA | | |
| 33 | Plug Valve with Box (6" diameter) | 1 | EA | | |
| 34 | Plug Valve with Box (12" diameter) | 5 | EA | | |
| 35 | Tapping Sleeve and Valve Assembly (6" diameter) | 1 | EA | | |
| 36 | Tapping Sleeve and Valve Assembly (8" diameter) | 2 | EA | | |
| 37 | Tapping Sleeve and Valve Assembly (24"x12" dia) | 1 | EA | | |
| 38 | Cut-in Connection to Existing FM (4" or 6" diameter) (Sta. 75+17) | 1 | EA | | |
| 39 | Line Stop Assembly (6" diameter) | 1 | EA | | |
| 40 | Line Stop Assembly (8" diameter) | 1 | EA | | |
| 41 | Offset Air Release Valve Assembly (2" diameter) | 5 | EA | | |
| 42 | Bore and Jack Steel Casing Pipe with 12" PVC Carrier Pipe: Sta. 10+08 to Sta. 12+05.08 | 128 | LF | | |
| TOTAL ESTIMATED BID (LINES 1 THROUGH 42) | | | | \$ | |

SECTION 01025
MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. This Section specifies administrative and procedural requirements to define pay items and determine payable amounts, and includes but is not limited to:
 - 1. General Provisions
 - 2. Cash Allowances
 - 3. Work Not Paid for Separately
 - 4. Measurement for Payment
 - 5. Partial Payment for Stored Materials and Equipment

1.02 GENERAL PROVISIONS

- A. This specification includes standard descriptions for all bid items. This Contract's specific bid items are listed in the Bid Schedule.
- B. The total Contract Amount shall cover the Work required by the Contract Documents. All costs in connection with the successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction, equipment, and tools; and performing all necessary labor and supervision to fully complete the Work, shall be included in the unit and lump sum prices bid. All Work not specifically set forth as a pay item in the Bid Form shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the prices bid.
- C. If used, all estimated quantities stipulated in the Bid Schedule or other Contract Documents are approximate and are to be used only (a) for the purpose of comparing the bids submitted for the Work, and (b) as a basis for determining an initial Contract Amount. The actual amounts of Work completed and materials furnished under unit price items may differ from the estimated quantities. The County does not expressly or by implication represent that the actual quantities involved will correspond exactly to the quantities stated in the Bid Schedule; nor shall the Contractor plead misunderstanding or deception because of such estimate or quantities or of the character, location or other conditions pertaining to the Work. Payment to the Contractor will be made only for the actual quantities of work performed or material furnished in accordance with the Drawings and other Contract Documents, and it is understood that the quantities may be increased or decreased as provided in the General Conditions.

- D. If used, the unit prices listed in the Bid Schedule shall include all services, obligations, responsibilities, labor, materials, devices, equipment, royalties and license fees, supervision, temporary facilities, construction equipment, bonds, insurance, taxes, clean up, traffic control, control surveys, field offices, close out, overhead and profit and all connections, appurtenances and any other incidental items of any kind or nature, as are necessary to complete the Work in accordance with the Contract Documents.
- E. Except for mobilization/demobilization and project record documents, payment for Work will be based on the percent of completed work of each item in the Schedule of Values, including stored materials, as determined by the County. Progress of work in each item of the Schedule of Values will be determined separately by the County. However, the County will issue a single payment certificate for progress on the Contract.
- F. The Contractor agrees that it will make no claim for damages, anticipated profits, or otherwise because of any difference between the amounts of work actually performed and materials actually furnished and the estimated amounts therefore.
- G. Where payment by scale weight is specified under certain items, the Contractor shall provide suitable weighing equipment which shall be kept in accurate adjustment at all times and certified. The weighing of all material shall be performed by the Contractor in the presence and under the supervision of the County.
- H. All schedules included in the Contract Documents are given for convenience and are not guaranteed to be complete. The Contractor shall assume all responsibility for the making of estimates of the size, kind, and quantity of materials and equipment included in work to be done under this Contract.
- I. Where pipe fittings are noted on the Drawings, such notation is for the Contractor's convenience and does not relieve the Contractor from laying and jointing different or additional items where required.
- J. All contracts shall be subject to 10% minimum retainage as defined in the General Conditions and the Agreement.
- K.

1.03 WORK NOT PAID FOR SEPARATELY

- A. Delivery: Payment for equipment delivery, storage or freight shall be included in the pay items including their installation and no other separate payment will be made therefore.
- B. Bonds: Payment for bonds required by the Contract shall be included in the pay items for the Work covered by the required bonds and no separate payment will be made.
- C. Preparation of Site: Payment for preparation of site shall be included in pay items proposed for the various items of Work and no separate payment will be made therefore. Preparation of site includes setting up construction plant, offices, shops, storage areas, sanitary and other facilities required by the specifications or state law or regulations;

providing access to the site; obtaining necessary permits and licenses; payments of fees; general protection, temporary heat and utilities including electrical power; providing shop and working drawings, certificates and schedules; providing required insurance; preconstruction photographs and videos; clearing and grubbing; removal of existing pavements, sidewalks and curbs; trench excavation, sheeting, shoring and bracing; dewatering and disposal of surplus water; structural fill, backfill, compaction and grading; testing materials and apparatus; maintenance of drainage systems; appurtenant work; record drawing and close-out documentation; cleaning up; and all other work regardless of its nature which may not be specifically referred to in a Bid Item but is necessary for the complete construction of the project set forth by the Contract.

D. Permitting & Permit Fees.

E. The County reserves the right to delete any item included in the Schedule of Values and decrease the Contract Price by the scheduled amount for the item deleted.

1.04 MEASUREMENT FOR PAYMENT

A. Methods of Measurement - Generally:

1. Units of measurement shall be defined in general terms as follows:

- a. Linear Feet (LF)
- b. Square Feet (SF)
- c. Square Yards (SY)
- d. Cubic Yards (CY)
- e. Each (EA)
- f. Sacks (SK)
- g. Lump Sum (LS)

2. Unit Price Contracts/Items:

- a. Linear Feet (LF) shall be measured along the horizontal length of the centerline of the installed material, unless otherwise specified. Pipe shall be measured along the length of the completed pipeline, regardless of the type of joint required, without deduction for the length of valves or fittings. Pipe included within the limits of lump sum items will not be measured.
- b. Square Feet (SF), Square Yards (SY), Cubic Yards (CY), Each (EA) and Sacks (SK) shall be measured as the amount of the unit of measure installed and compacted within the limits specified and shown in the Specifications and Drawings. Slope angles and elevations shall be measured using land-surveying equipment. Contractor shall provide supporting documentation (i.e. drawings, delivery tickets, invoices, survey calculations, etc.) to verify actual installed quantities.

B. Lump Sum Contracts/Items - Generally:

1. Quantities provided in the Schedule of Values are for the purpose of estimating the completion status for progress payments. Payment will be made for each individual item on a percentage of completion basis as estimated by the Contractor and approved by the County.
2. Adjustments to costs provided in the accepted Schedule of Values may be made only by Change Order.

3. The County reserves the right to delete any item included in the Schedule of Values and decrease the Contract Price by the scheduled amount for the item deleted.

1.05 MEASUREMENT AND PAYMENT ITEMS

- A. ***Only those bid items included in the Bid Schedule are applicable for this Contract.*** The County has standardized the measurement and payment items. Currently, there are approximately 100 measurement and payment items describing approximately 300 bid items. The bid item numbering system comprises five sections that are divided into 23 subsections. The sections and subsections are listed below.

10. General Requirements
 - 10.1 General
11. Site Work
 - 11.1 Miscellaneous
 - 11.2 Road Work
 - 11.3 Install/Replace Fence or Wall
 - 11.4 Bypass Pumping
 - 11.5 Abandon or Remove Pipe/Structure
12. Pressure Pipes
 - 12.1 Pressure Pipe and Fittings and Restrained Joints
 - 12.2 Valves
 - 12.3 Tapping Sleeve and Valve Assembly
 - 12.4 Cut-in Connections to Existing Main
 - 12.5 Piping Appurtenances
 - 12.6 Directional Drill
 - 12.7 Pipe Bursting
13. Wastewater Collection System
 - 13.1 Cleaning Sanitary Sewers
 - 13.2 CCTV Sanitary Sewers
 - 13.3 Install/Replace Sanitary Sewer
 - 13.4 Install/Replace Sanitary Manholes
 - 13.5 Sanitary Manhole Rehabilitation
 - 13.6 Sanitary Service Laterals and Cleanouts
 - 13.7 Cured-in-Place Pipe (CIPP) Liner
 - 13.8 Sanitary Sewer Pipe Bursting
14. Pump Stations
 - 14.1 Wastewater Duplex Pump Station
 - 14.2 Wastewater Triplex Pump Station

All of the subsections have bid item measurement and payment descriptions. Several bid items in the Project Bid Schedule may be described with the same bid item measurement and payment description in Table A, "Measurement and Payment Items". The bid items in the Project Bid Schedule are related to the Section 01025 measurement and payment items as follows:

1. All of the bid items in the Project Bid Schedule have 8 numerical digits.
2. Table A, "Measurement and Payment Items" for each of the bid items there are five

numerical digits followed by “.xxx”.

3. The first 5 numerical digits of the bid item in the Project Bid Schedule designate the measurement and payment item found in Table A, "Measurement and Payment Items."

Table A

| BID ITEM | MEASUREMENT AND PAYMENT ITEMS Pg 1 |
|---------------------|--|
| | 10 GENERAL REQUIREMENTS |
| | 10.1 - General |
| 1 | Reference ID 10.110.110 Mobilization, Demobilization, Bonds, and Permits (not to exceed 5% of the total of all bid items except bid items under section 10.1 General) |
| | <p>a. Measurement: Measurement of various items for Mobilization and Demobilization shall not be made for payment and all items shall be included in the lump sum price. <u>This lump sum price shall not exceed 5% of the total of all bid items except bid items under section 10.1 General.</u></p> <p>b. Payment: Payment of 75 percent of the applicable lump sum price for the item shall be full compensation for the Work consisting of the preparatory Work and operations in mobilizing for beginning Work on the Contract, including, but not limited to, movement of those personnel, equipment, supplies and incidentals to the project site, preparation of submittals, and for the establishment of temporary offices and buildings, safety equipment and first aid supplies, project signs, field surveys, sanitary and other facilities required by these specifications, and State and local laws and regulations. The costs of General Requirements (Section 01001), bonds, permits, and any required insurance, project signs, and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials, shall also be included. This Work also consist of the general project management of the Work including, but not limited to, field supervision and office management, as well as other incidental cost for management of the Work during the duration of the Contract. This Work also includes maintenance of the field offices for the duration of the Contract.</p> <p>Payment of the remaining 25 percent of the applicable lump sum price for this item also consists of demobilization or the operations normally involved in ending Work on the project including, but not limited to, termination and removal of temporary utility service and field offices; demolition and removal of temporary structures and facilities; restoration of Contractor storage areas; disposal of trash and rubbish, and any other post-construction work necessary for the proper conclusion of the Work.</p> |
| 2 | Reference ID 10.120.110 Preconstruction Audio-Video Documentation |
| | a. Measurement: Measurement shall be based on the satisfactory submittal of a |

| | |
|---|---|
| | <p>comprehensive pre-construction video in accordance with the County requirements and specifications (Section 01101).</p> <p>b. Payment: Payment of the applicable Contract lump sum price as stated in the proposal will be full compensation for furnishing all labor, materials, and equipment necessary to create a comprehensive pre-construction video in accordance with the County requirements and specification.</p> |
| 3 | Reference ID 10.130.110 Indemnification |
| | <p>a. Payment: In consideration of the Contractor's Indemnity Agreement as set out in the Contract Documents, the County specifically agrees to give the Contractor a maximum of \$100.00 and other good and valuable consideration, receipt of which is acknowledged upon signing of the Agreement.</p> |
| 4 | Reference ID 10.140.110 Project Record Documents (a minimum of 1% of the total of all bid items except bid items under section 10.1 General) |
| | <p>a. Measurement: Measurement for this item shall be based on satisfactory progress of the Contractor to provide Project Record Documents in accordance with the County requirements and specifications (Section 01720). Various items for Project Record Documents shall not be made for individual payment and all items shall be included in the lump sum price. <u>This lump sum price shall be a minimum of 1% of the total of all bid items except bid items under section 10.1 General).</u></p> <p>b. Payment: Payment of the applicable Contract lump sum price as stated in the proposal will be full compensation for furnishing all labor, materials, and equipment necessary to create the Project Record Drawings, including the certified as-built survey, in accordance with the County requirements and specifications. Payment will be made at the lump sum price divided into equal monthly payments based on the Contract Time and acceptance by County of the progressive as-built drawings and tables.</p> |
| 5 | Reference ID 10.150.110 Maintenance of Traffic |
| | <p>a. Measurement: Measurement shall be based on satisfactory Maintenance of Traffic (MOT) in accordance with County requirements and Florida Department of Transportation (FDOT) standards.</p> <p>b. Payment: Payment of the applicable Contract lump sum price as stated in the proposal will be full compensation for furnishing all labor, materials, and equipment necessary to maintain public roadway and pedestrian traffic including flag men, uniformed police officers, barricades, warning lights/flashers, and safety ropes. Also included is furnishing, installing and maintaining a Traffic Control Plan, control and safety devices, control of dust, temporary crossing structures over trenches, any necessary detour facilities, and other special requirements for the safe and expeditious movements of traffic.</p> |
| 6 | Reference ID 10.160.110 Public Information Officer |
| | <p>a. Measurement: Measurement shall be based on satisfactory Public</p> |

| | |
|----|---|
| | <p>Information/Relations completed by an independent third party in accordance with County requirements.</p> <p>b. Payment: Payment of the applicable Contract lump sum price as stated in the proposal will be full compensation for furnishing all labor, materials, and equipment necessary to provide an independent third party hired by the Contractor to maintain communication with those individuals having a residence, business, or property adjacent to or within 1,000-feet of the construction area. Payment shall include the rental of venues, preparation of and conducting all meetings, and preparation of and disbursement of printed materials in accordance Specification 01001 – <i>General Work Requirements</i>.</p> |
| | 11 SITE WORK |
| | 11.1 – Miscellaneous |
| 7 | Reference ID 11.110.110 Erosion and Sediment Control |
| | <p>a. Measurement: Measurement shall be based on satisfactory Erosion and Sediment Control in accordance with the County requirements and specifications (Section 01560).</p> <p>b. Payment: Payment of the applicable Contract lump sum price as stated in the proposal will be full compensation for furnishing all labor, materials, and equipment to control and prevent sediment transportation from the Work area to adjacent properties, including installation, maintenance, and removal of temporary erosion and sediment controls.</p> |
| | 11.2 - Road Work |
| 8 | Reference ID 11.200.110 Stabilized Subbase |
| | <p>a. Measurement: Stabilized Subbase shall be measured in actual square yards of Type B Stabilization (LBR40) removed and installed in accordance with the County requirements and specification section 02570.</p> <p>b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Stabilized Subbase (12”) and shall include all labor, materials and equipment to remove existing subgrade and to stabilize the top 12” of subbase material to an LBR of 40 per FDOT Section 160. Any areas that are not feasible to stabilize and mix 12” deep, the Contractor may be allowed to substitute 50% more base thickness in place of stabilization at the same stabilization unit price.</p> |
| 9 | Reference ID 11.210.111 Concrete Base (various thickness) |
| | <p>a. Measurement: Concrete Base shall be measured in actual square yards of high early strength concrete base with prime and tack coats installed in accordance with the County requirements and specifications.</p> <p>b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Concrete Base and shall include all labor, materials and equipment to install, and spread concrete base. No separate payment will be made for prime and tack coats.</p> |
| 10 | Reference ID 11.212.110 Soil Cement Base (various thickness) |

| | |
|----|---|
| | <ul style="list-style-type: none"> a. Measurement: Soil Cement Base shall be measured in actual square yards of soil cement base with prime and tack coats installed in accordance with the County requirements and specifications (Section 02572). b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Soil Cement Base and shall include all labor, materials and equipment to install, spread, and compact soil cement base. No separate payment will be made for prime and tack coats. |
| 11 | Reference ID 11.220.110 Temporary Paving (cold mix overlay) (various thickness) |
| | <ul style="list-style-type: none"> a. Measurement: Temporary Paving shall be measured in actual square yards of temporary paving furnished and installed in accordance with the Plans and Specifications. b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Temporary Paving and shall include all labor, materials, and equipment to apply the cold mix overlay in accordance with County requirements and specifications. The unit price bid shall also include traffic signalization repair, and temporary striping and markings. |
| 12 | Reference ID 11.230.110 Milling and Resurfacing |
| | <ul style="list-style-type: none"> a. Measurement: Milling and Resurfacing shall be measured in actual square yards over which the milling and subsequent resurfacing is completed and accepted at the thickness as indicated in the Drawings. b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Milling and Resurfacing and shall include all labor, materials, and equipment to mill surface; dispose of milled materials; and apply Type S-III asphalt surface overlay in accordance with County requirements and specifications. The unit price bid shall also include traffic signalization repair, and permanent striping and markings. |
| 13 | Reference ID 11.242.110 Asphalt Pavement (various thickness) |
| | <ul style="list-style-type: none"> a. Measurement: Asphalt Pavement shall be measured in actual square yards of existing asphalt removed and asphalt paving furnished and installed in accordance with the County requirements and specifications. The width measured for payment of asphalt surface repair, as measured perpendicular to the centerline of the pipe, shall be limited to the width shown on the Drawings. The length shall be as measured along the centerline of the pipe. b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Asphalt Pavement and shall include all labor, materials, and equipment necessary to provide a safe, smooth driving surface. The Work shall include saw cutting; pavement removal and proper disposal of existing pavement; installing prime coat, tack coat, and asphalt; compaction, traffic signalization repair, and temporary and permanent striping and markings in accordance with the County requirements and specifications. |

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| 14 & 15 | Reference ID 11.250.110 and 111 Concrete Pavement Replacement (various thickness) |
| | <p>a. Measurement: Concrete Pavement Replacement shall be measured in actual square yards of concrete removed and replaced. Width of replaced sidewalk shall match that of existing sidewalk. Replaced portions of driveways shall conform to the lines and grades of removed portions of driveways. Thickness of pavement shall be as indicated in the plans and specifications.</p> <p>b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Concrete Pavement Replacement and shall include all labor, materials, and equipment for saw-cutting, removal and proper disposal of existing concrete, compaction, form work, concrete replacement, restoration, and clean-up for a complete installation.</p> |
| 16 | Reference ID 11.251.112 Construct Public Sidewalk ADA Ramp |
| | <p>a. Measurement: Measurement for Construct Public Sidewalk ADA Ramp shall be made per actual number of sidewalk ramps with detectable warning surface installed.</p> <p>b. Payment: Payment for Construct Public Sidewalk ADA Ramp shall be made based on the authorized quantity at the unit price indicated in the Bid. Payment of the applicable Contract unit price shall be full compensation for furnishing all labor, materials, and equipment necessary for installing new concrete sidewalk ramps to current FDOT Index 304. This includes clearing, grubbing compaction, forming, concrete and detectable warning surface placement, finishing, restoration and clean up.</p> |
| 17 | Reference ID 11.252.110 Concrete Paver Replacement |
| | <p>a. Measurement: Concrete Paver Replacement shall be measured in actual square yards of concrete pavers removed and replaced. Replaced portions of driveways shall conform to the lines and grades of removed portions of road or driveways.</p> <p>b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Concrete Paver Replacement and shall include all labor, materials, and equipment for saw-cutting, removal and proper storage of existing pavers, furnishing and installing new base materials, compaction, existing paver replacement, purchase and installation of new pavers (as required), restoration, and clean-up for a complete installation</p> |
| 18 | Reference ID 11.280.110 Concrete Curb and/or Curb and Gutter Replacement |
| | <p>a. Measurement: Concrete Curb and/or Curb and Gutter Replacement shall be measured in actual linear feet removed and replaced measured along the centerline of the curb within the excavation of the trench to a maximum width equal to the width of asphalt pavement cut. All additional curb and gutter damaged shall be replaced by the Contractor at his own expense.</p> <p>b. Payment: Payment will be made at the contract unit price bid per linear feet</p> |

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| | as stated in the proposal for Concrete Curb and Gutter Replacement and shall include all labor, materials, and equipment for saw-cutting, removal and proper disposal of existing concrete curb and gutter, compaction, and concrete curb and gutter replacement for a complete installation. |
| 19 & 20 | Reference ID 11.290.110 and 111 Sod Replacement |
| | <p>a. Measurement: Sod Replacement shall be measured in actual square yards of sod furnished, laid, fertilized, watered and maintained for all areas as specified on the Drawings.</p> <p>b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Sod Replacement and shall include all labor, materials, and equipment necessary to furnish, install, fertilize, water and maintain a healthy stand of grass including any soil amendments or conditioning required to bring the existing soil to within acceptable pH levels as recommended by the sod grower.</p> |
| 19 | Reference ID 11.291.110 Remove and Replace Existing Crape Myrtle Trees |
| | <p>a. Measurement: Measurement of Remove and Replace Existing Crape Myrtle Trees shall be made per the actual number of existing trees satisfactorily removed; and new crape myrtle trees furnished, installed and maintained throughout the duration of the construction period and establishment period in accordance with the Florida Department of Transportation's (FDOT) Specification Section 580 (Landscape Installation) and FDOT Index No. 544. Crape Myrtle Trees shall be 3gallon container size with violet purple and/or red blooms.</p> <p>b. Payment: Payment will be made on the authorized quantity at the unit price indicated in the Bid. Payment shall include full compensation for furnishing all labor, materials, and equipment for the removal of the existing Crape Myrtle Trees and installation of replacement crape myrtle trees including maintenance and warranty of new trees; coordination with existing utilities, protection and relocation of existing utilities including service connections and irrigation, soil backfill, soil ring, <u>sod replacement</u>, mulch, support stakes, support straps, and watering in accordance with the referenced Specification Section.</p> |
| | 11.4 - Bypass Pumping |
| 20 & 21 | Reference ID 11.420.111 Bypass Pump Station (<1,000 gpm) |
| | <p>a. Measurement: Measurement for this item shall be based on the complete bypass operation and contingency plan in accordance with the County requirements and specifications.</p> <p>b. Payment: Payment of the applicable Contract lump sum price shall be full compensation for furnishing all labor, materials, equipment as necessary for bypass operations and contingency plan as required, including pumps, piping, and hoses; tankers; temporary bypass and service piping; hauling and proper disposal of wastewater; plugging; gasoline/diesel fuel; protection of existing facilities, utilities, and property; traffic maintenance; signs and</p> |

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| | barriers; and all incidental work required to satisfactorily complete this item. |
| 22 | Reference ID 11.430.112 Water Main Bypass and Replacement |
| | <p>a. Measurement: Measurement for this item shall be based on the complete water main bypass operation to temporarily stop the flow of water and allow the set-up of temporarily bypassing water flow through the line stop housing into the bypass piping; removal of the 24-inch water main; replacement, pressure -testing and disinfection of the replacement 24-inch water main; and subsequent removal of the bypass operation.</p> <p>b. Payment: Payment of the applicable Contract lump sum price as stated in the proposal will be full compensation for furnishing all labor, materials, and equipment necessary to perform temporary dual 24-inch line stops with 16-inch bypass outlets on the existing ductile iron water main including thrust protection, restraint of the existing water main, exploratory excavations to site the line stop fittings relative to existing water main pipe joints, installation of concrete line stop support pads as detailed in the Drawings, tapping sleeves, temporary tapping valves, temporary line stop housings with outlet flanges, completion plugs, completion flanges, and testing; construct the 16-inch DR 11 HDPE temporary above-grade pipeline including pressure testing, disinfection, and bacteriological testing, all necessary fused fittings, temporary valves, flanges, flange adaptors, and joint and fitting restraining devices; remove and dispose of the existing 24-inch ductile iron water main including completely draining and disposing of pipe contents; and construct replacement 24-inch ductile iron water main including necessary fittings, joint and fitting restraining devices, metallic tracer wire, pressure testing, disinfection, and bacteriological testing; and subsequent removal of the bypass operation. This item also includes coordination with existing utilities, protection and relocation of existing utilities including service connections and irrigation, coordination with Orange County Public Works Department, coordination with residents, installation of temporary barrier wall, excavation, sheeting, shoring and bracing, dewatering, ground water treatment and disposal, backfill, compaction and grading, <u>and sod replacement</u>. The line stop assembly will be required to remain in place for the duration of the bore and jack of Curry Ford Road and construction of the replacement 24-inch water main.</p> |
| | 11.5 - Abandon or Remove Pipe/Structure |
| 23 | Reference ID 11.510.112 Abandon-in-Place Pipe |
| | <p>a. Measurement: Abandon-in-Place Pipe, regardless of size and material, shall be measured in actual linear feet satisfactorily abandoned-in-place in accordance with the County requirements and specifications (Section 02080). Pipe abandonment shall be measured along the centerline without deduction for valves and fittings.</p> <p>b. Payment: Payment will be made at the contract unit price bid per linear feet as stated in the proposal for Abandon-in-Place Pipe and shall include all labor, materials, and equipment to excavate, backfill and compact; sheet,</p> |

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| | shore, and brace; dewater; completely drain and properly dispose of pipe contents; grout fill, and plug or cap existing pipes of all services and sizes designated "to be abandoned" on the Drawings; <u>protection, repair and/or replacement of existing irrigation systems; sod replacement, restoration, and clean-up</u> . Also included in this item is the removal of existing valve boxes located on valves connected to piping designated to be retired. Valve boxes shall be removed, backfilled and compacted with suitable material. |
| 24, 25 & 26 | Reference ID 11.530.110, 111 and 112 Remove Existing Pipe (various sizes) |
| | <p>a. Measurement: Remove Existing Pipe, regardless of size and material, shall be measured in actual linear feet satisfactorily excavated, removed, and salvaged in accordance with the County requirements and specifications (Section 02080). Pipe removal shall be measured along the centerline without deduction for valves and fittings. Also included in this item is the removal and salvage of items including air release valves and vaults, and fire hydrant assemblies.</p> <p>b. Payment: Payment will be made at the contract unit price bid per linear feet as stated in the proposal for Remove Existing Pipe and shall include all labor, materials, and equipment to sheet, shore, and brace; dewater; excavate; <u>coordinate with Homeowners Associations; protect existing utilities</u>; completely drain and properly dispose of pipe contents; plug or cap; <u>protection, repair and/or replacement of existing irrigation systems; restoration, sod replacement, clean-up</u>; remove and salvage pipe of all services and sizes designated "to be removed" on the Drawings, <u>additional fill to replace existing pipe void</u>; backfill and compact. Also included in this item is the removal and salvage of items (as listed in Specification Section 02080) attached to the piping to be removed.</p> |
| 27 | Reference ID 11.531.111 Sample Collection for Pipelines (Joints to Owner) (Various Sizes) |
| | <p>a. Measurement: Measurement for Sample Collection for Pipelines shall be made per number of samples of existing pipe satisfactorily removed, salvaged, shipped to specified facilities, and tested in accordance with the County requirements and specifications (Section 01450).</p> <p>b. Payment: Payment for Sample Collection for Pipelines shall be made per actual number of samples of existing pipe removed and salvaged of the lengths specified for all services and sizes designated "to be removed and salvaged" on the Drawings including coordination with Orange County Utilities and specified testing laboratories; labor, materials, and equipment to excavate, backfill, compact, photograph, label, clean, palletize, and properly ship samples to specified facilities. Also include are all fees associated with required testing in accordance with Specification Section 01450 and submittal of laboratory analysis report to Owner.</p> |
| | 12 PRESSURE PIPES |
| | 12.1 - Pressure Pipes with Fittings and Restrained Joints |

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| 28 | Reference ID 12.110.112 Water Main with Fittings and Restrained Joints (RJ) (various sizes) |
| | <p>a. Measurement: Water Main installation regardless of type and size shall be measured in actual linear feet satisfactorily furnished and laid, as measured along the length of the centerline of the completed pipeline, regardless of the type of joint required, without deduction for the length of valves and fittings. Pipe included within the limits of lump sum pay items will not be measured for payment under this item.</p> <p>b. Payment: Payment will be made at the contract unit price bid per linear feet as stated in the proposal for Water Main w/Fittings and restrained joints and shall include all labor, materials, and equipment to construct the respective pipeline including coordination with existing utilities, protection of existing utilities including service connections, tree protection, excavation, sheeting, shoring and bracing, dewatering, groundwater treatment and disposal, (search for dewatering in document, add this language to any item that references dewatering) backfill, compaction, and grading, all testing, potable water system protection, disinfection, restoration, sod and clean-up. This item also includes all necessary fittings, reducers, bends, tees, wyes, plugs, restraining devices, polyethylene encasement where required, metallic tracer wire, line locator, identification markers, and removal and replacement of fences and gates, mailboxes, trees, shrubs, irrigation sprinklers and other obstructions.</p> |
| 29, 30 & 31 | Reference ID 12.130.110, 111 and 114 Forcemain with Fittings and Restrained Joints (RJ) (various sizes) |
| | <p>a. Measurement: Forcemain installation regardless of type and size shall be measured in actual linear feet satisfactorily furnished and laid, as measured along the length of the centerline of the completed pipeline, regardless of the type of joint required, without deduction for the length of valves and fittings. Pipe included within the limits of lump sum pay items will not be measured for payment under this item.</p> <p>b. Payment: Payment will be made at the contract unit price bid per linear feet as stated in the proposal for Forcemain w/Fittings and RJs and shall include all labor, materials, and equipment to construct the respective pipeline including coordination with existing utilities <u>and Homeowners Associations;</u> protection of existing utilities including service connections, <u>irrigation systems;</u> tree protection, excavation, sheeting, shoring and bracing, dewatering, groundwater treatment and disposal, backfill, compaction, and grading, all testing, restoration, <u>sod replacement</u> and clean-up. This item also includes all necessary fittings, reducers, bends, tees, wyes, plugs, restraining devices, polyethylene encasement where required, metallic tracer wire, line locator, identification markers, and removal and replacement of fences and gates, mailboxes, trees, shrubs, 6-inch underdrain, irrigation sprinklers and other obstructions.</p> |

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| | 12.2 – Valves |
| 32, 33 & 34 | Reference ID 12.220.110, 111 and 114 Plug Valve with Box (various sizes) |
| | <p>a. Measurement: Measurement for Plug Valve with Box shall be made per actual number of plug valves with valve boxes satisfactorily furnished and installed complete with covers and concrete collars.</p> <p>b. Payment: Payment for the Plug Valve with Box shall be made based on the authorized quantity at the unit price indicated in the Bid. Payment of the applicable Contract unit price shall be full compensation for furnishing all labor, materials and equipment to install the valve, valve box, valve box extensions, test station box and cap, operating nut extensions, valve wrenches, restraining devices, covers, concrete collars, excavation, dewatering, sheeting, shoring, bracing, backfill, compaction, restoration and all other items required for a complete, acceptable and operable installation.</p> |
| | 12.3 - Tapping Sleeve and Valve Assembly |
| 35, 36 & 37 | Reference ID 12.310.111, 112 and 118 Tapping Sleeve and Valve Assembly (various sizes) |
| | <p>a. Measurement: Measurement for Tapping Sleeve and Valve Assembly shall be made per actual number of tapping sleeves and valves satisfactorily furnished and installed to provide a complete and functional unit.</p> <p>b. Payment: Payment for the Tapping Sleeve and Valve Assembly shall be made based on the authorized quantity at the unit price indicated in the Bid. Payment of the applicable Contract unit price shall be full compensation for furnishing all labor, materials and equipment necessary to perform a wet tap to an existing main including excavation, sheeting, shoring, bracing, dewatering, backfill, compaction, grading, tapping sleeve, tapping valve, valve box extensions, operating nut extensions, valve wrenches, restraining devices, protection of potable water system, disinfection, restoration and all other items required for a complete, acceptable and operable installation.</p> |
| | 12.4 – Cut-in Connections to Existing Mains |
| 38 | Reference ID 12.430.110 Cut-in Connection to Existing Forcemain (various sizes) |
| | <p>a. Measurement: Measurement for cut-in connections to the existing forcemain shall be made per number of cut-in connections made complete and in place regardless of the type and size from the constructed forcemain to the existing forcemain as authorized in the Contract Documents regardless of the depth of the connection.</p> <p>b. Payment: Payment for the Cut-in Connection to the Existing Forcemain shall be made based on the authorized quantity at the unit price indicated in the Bid. Payment of the applicable Contract unit price shall be full</p> |

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| | compensation for furnishing all labor, materials, and equipment to make a cut-in connection from the constructed forcemain to the existing forcemain including coordination with existing utilities, protection of existing utilities, service connections, <u>and irrigation systems</u> , excavation, sheeting, shoring and bracing, dewatering, cutting pipe, completely drain and properly dispose of existing pipe contents, connection to existing forcemain, restraint of existing forcemain in accordance with the County requirements, backfill, compaction, grading, swabbing, restoration, <u>sod replacement</u> and clean-up. This item also includes all necessary fittings, reducers, bends, tees, and wyes. |
| | 12.5 - Piping Appurtenances |
| 39 & 40 | Reference ID 12.510.111 and 112 Line Stop Assembly (various sizes) |
| | <p>a. Measurement: Measurement for Line Stopping Assembly shall be made per actual number of line stops satisfactorily furnished and installed to permanently or temporarily stop the flow within the indicated main at the locations shown on the Drawings.</p> <p>b. Payment: Payment for the Line Stopping Assembly shall be made based on the authorized quantity at the unit price indicated in the Bid. Payment of the applicable Contract unit price shall be full compensation for furnishing all labor, materials and equipment necessary to perform a permanent or temporary line stop on an existing main including excavation, sheeting, shoring, bracing, dewatering, backfill, compaction, grading, tapping sleeve, plug, retraining devices, restraint of existing piping in accordance with the County requirements, swabbing, restoration and clean-up and all other items required for a complete, acceptable and operable installation.</p> |
| 41 | Reference ID 12.530.110 Offset Air Release Valve Assembly (various sizes) |
| | <p>a. Measurement: Measurement for Offset Air Release Valve Assemblies shall be made per actual number of offset air release valves with enclosures satisfactorily furnished and installed to provide a complete and functional unit.</p> <p>b. Payment: Payment for the Offset Air Release Valve Assembly shall be made based on the authorized quantity at the unit price indicated in the Bid. Payment of the applicable Contract unit price shall be full compensation for furnishing all labor, materials and equipment necessary to install the valve including saddle, fittings, pipe, concrete pad, pre-cast vault or enclosure, excavation, sheeting, shoring, bracing, dewatering, backfill, compaction, grading, <u>sod replacement</u>, restoration and all other items required for a complete, acceptable and operable installation.</p> |
| 42 | 12.8 – Bore and Jack |
| | Reference ID 12.810.113 Bore and Jack Steel Casing Pipe with PVC Carrier Pipe |
| | a. Measurement: Bore and jack steel casing pipe with PVC force main carrier |

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| | <p>main installation shall be measured in actual linear feet satisfactorily furnished and installed, as measured along the length of the center line of the completed jack and bore casing in accordance with the County requirements and specifications (Section 02667).</p> <p>b. Payment: Payment will be made at the contract unit price bid per linear feet as stated in the proposal for Bore and Jack Steel Casing with PVC Carrier Pipe and shall include all labor, materials, and equipment necessary for a complete bore and jack casing and PVC carrier pipe installation and testing including excavation, dewatering, ground water treatment and disposal, backfill and compaction; casing pipe, carrier pipe, casing spacers, mechanically restrained joints, end seals, metallic tracing wire, <u>sod replacement</u>, restoration, coordination with existing utilities, protection and relocation of existing utilities including service connections and irrigation, and clean-up.</p> |
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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION