

April 3, 2018  
BOARD OF COUNTY COMMISSIONERS  
ORANGE COUNTY, FLORIDA

IFB NO. Y18-741-TA/ ADDENDUM NO. 3

**SUMMERLAKE PARK FORCE MAIN AND TINY ROAD RECLAIMED MAIN**

**BID OPENING DATE: April 10, 2018**

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 and deletions via ~~strikethrough~~.

**A. Questions and Answers**

Question No. 1: Please provide thickness and asphalt type to be restored during open cut asphalt pavement restoration.

**Response No. 1: *Minimum asphaltic concrete surface overlay thickness shall be 5" inches. Road construction shall be 3-½" structural (SP-19.0) with 1-½" friction course (FC-12.5).***

Question No. 2: How many inches are we to mill and resurface Reams Rd and what type of asphalt pavement is to be installed?

**Response No. 2: *Mill existing asphalt pavement (1.5" avg. Depth) and resurface friction course FC-12.5 (1.5") (Traffic C) (PG 76-22 PMA).***

Question No. 3: Please review duplicate bid item #28 and #29.

**Response No. 3: *Duplicate bid items have been removed. Refer to revised bid form, attached and labeled to this addendum.***

Question No. 4: No bid item provided for Concrete Curb replacement on Summerlake Park Blvd FM section.

**Response No. 4: *Line item for Concrete Curt and/or Curb and Gutter Replacement has been added. See revised bid form, attached and labeled to this addendum.***

Question No. 5: No bid item given for 8" Linestop (Summerlake Park Blvd FM)

**Response No. 5: *Line item for 8" Line Stop Assembly has been added. See revised bid form, attached and labeled to this addendum.***

Question No. 6: Does one project location need to be completed before the 2nd location can be started?

**Response No. 6: Yes. Refer to General Note 50 on Sheet G001.**

Question No. 7: Will there be additional work restrictions due to the school on the corner of Tiny Rd and Bridgewater Crossing Blvd?

**Response No. 7: The Contractor is required to submit for approval a Traffic Control Plan to Orange County Public Works for vehicular and pedestrian traffic. Contractor can expect work restrictions based on their approved Traffic Control Plan. At a minimum, night time work will be required for connection to the 16" force main on Reams Road, all road open cuts and road restoration.**

Question No. 8: What will be the limits of the road restoration at Tiny Rd & Bridgewater Crossing Blvd?

**Response No. 8: Restoration limits are shown on the Drawings.**

Question No. 9: What type of fence replacement does the County want?

**Response No. 9: The Contractor shall match existing fence type.**

Question No. 10: Bid items 28 & 29 are the same, is item 29 supposed to be asphalt roadway replacement?

**Response No. 10: Duplicate bid item has been removed. See revised bid form, attached and labeled to this addendum.**

Question No. 11: What are the discharge flow rates for the Summerlake lift station?

**Response No. 11: 2,500 gallons per minute (gpm).**

Question No. 12: What are the discharge flow rates for the 16 FM at the cut in connection at Sta.725+55.58? Can this line be shut down or isolated during cut in connection?

**Response No. 12: 4,000 gpm. Yes. The connection shall be made between 11 PM and 3 AM. Contractor shall provide eight (8) tankers with drivers to assist Orange County in managing the flow at the upstream pump stations. Contractor to provide additional tankers as required to drain the pipe and manage small flows at the connection point. See revisions to Specification Section 01516 in Part B.**

Question No. 13: What pay item covers the cost to remove and replace the existing 15" and 29"x19" RCP?

**Response No. 13: It shall be included under the Force Main with Fittings and Restrained Joints. Refer to Section 01025 of the Specifications.**

Question No. 14: Is a Project Identification Sign required for this project? If so, how many?

**Response No. 14: Yes. Refer to Section 01580 of the Specifications.**

Question No. 15: Is a Construction Field Office required for this project?

**Response No. 15: Yes. Refer to Section 01590 of the Specifications.**

Question No. 16: There is an error with Bid Item # 23 concerning the 16" x 16" wet Tap. Confirm this is actually a 12" x 12" wet tap. Also, there appears to be only one (1) 16" Line Stop instead of 2 each (Bid Item 24) and one (1) 8" Line Stop on sheet (C205) which does not appear as a Bid Item at all.

**Response: The 16" tapping sleeve has been modified to show the 12" Tapping Sleeve and valve line item. Line Item for 8" line stop has been added to the bid form. Line Item for 16" Line Stop is modified to reflect quantity of one. Refer to revised bid schedule, attached and labelled to this addendum.**

## **B. SPECIFICATIONS**

1. Section 01025 – Section 01205 replaced in its entirety with Revised Section 01025, attached hereto.
2. Section 01580, 1.01 Scope of Work: Add the following after Paragraph A.  
"B. The connection to the 16" force main on Reams Road shall be made between 11 PM and 3 AM. Contractor shall provide eight (8) tankers with drivers to assist Orange County in managing the flow at the upstream pump stations. Contractor to provide additional tankers as required to drain the pipe and manage small flows at the connection point.

**C. DRAWINGS**

1. Sheet D-502, Detail 1 Note 3: Delete “(1”- 5”) INCH/ES” and replace with “5” INCHES (3-1/2” STRUCTURAL (SP-19.0) WITH 1-1/2” FRICTION COURSE (FC-12.5)”.
2. Sheet D-502, Detail 3 Note 3 – Delete “(1”- 5”) INCH/ES” and replace with “5” INCHES (3-1/2” STRUCTURAL (SP-19.0) WITH 1-1/2” FRICTION COURSE (FC-12.5)”.

**D. IFB Y18-741-TA BID SCHEDULE**

Delete : Delete the ~~IFB Y18-741-TA Bid Schedule~~ in its entirety.

Add: Add in its place REVISED IFB Y18-741-TA BID SCHEDULE, REVISED PAGES D3-D4, attached and labeled this Addendum.

**IMPORTANT: Failure to submit your bid with the “Revised Bid Schedule” per this Addendum shall be cause for your bid to be rejected as non-responsive.**

**ACKNOWLEDGEMENT OF ADDENDA**

- a. The Bidder 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 bid.
- b. All other terms, conditions and specifications of the IFB remain the same.
- c. Receipt acknowledged by:

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name of Firm

REVISED BID SCHEDULE Y18-741-TA  
SUMMERLAKE FORCE MAIN AND TINY ROAD RECLAIMED WATER MAIN

| ITEM NO.  | DESCRIPTION  | UNIT | Est. QTY | UNIT COST | TOTAL COST |
|---|--|------|----------|-----------|------------|
| <b>SUMMERLAKE PARK BLVD FORCE MAIN AND TINY ROAD RECLAIMED WATER MAIN</b> |  |      |          |           |            |
| 1.0   | Mobilization, Demobilization, Bonds and Insurance (shall not exceed 5% of bid items 7- 38) | LS   | 1        |           |            |
| 2.0   | Preconstruction Audio-Video Documentation  | LS   | 1        |           |            |
| 3.0   | Indemnification  | LS   | 1        | \$100.00  | \$100.00   |
| 4.0   | Project Record Documents (Shall be a minimum of 1% of bid items 7-38)                      | LS   | 1        |           |            |
| 5.0   | Maintenance of Traffic (MOT) Location 1: Summerlake Park Blvd Force Main                   | LS   | 1        |           |            |
| 6.0   | Maintenance of Traffic (MOT) Location 2: Tiny Road Reclaimed Water Main                    | LS   | 1        |           |            |
| <b>SUMMERLAKE PARK BLVD FORCE MAIN (ITEMS 7- 27)</b>                      |  |      |          |           |            |
| 7.0   | Erosion and Sediment Control   | LS   | 1        |           |            |
| 8.0   | Milling and Resurfacing  | SY   | 1180     |           |            |
| 9.0   | Concrete Pavement Replacement (sidewalks and driveways) (various thicknesses)              | SY   | 72       |           |            |
| 10.0  | Concrete Curb and/or Curb and Gutter Replacement   | LF   | 11       |           |            |
| 11.0  | Sod Replacement  | SY   | 4170     |           |            |
| 12.0  | Install/Replace Fence  | LF   | 1700     |           |            |
| 13.0  | Bypass Pumping (various flows)   | LS   | 1        |           |            |
| 14.0  | Abandon-in-Place Existing Pipe   | LF   | 240      |           |            |
| 15.0  | Remove Existing Pipe   | LF   | 2096     |           |            |
| Force main with Fittings and Restrained Joints (RJ) (various sizes)       |  |      |          |           |            |
| 16.0  | 24" PVC Force Main   | LF   | 2549     |           |            |
| 17.0  | 16" PVC Force Main   | LF   | 20       |           |            |
| 18.0  | 12" PVC Force Main   | LF   | 49       |           |            |
| 19.0  | 8" PVC Force Main  | LF   | 82       |           |            |
| Plug Valve with Box (various sizes)                                       |  |      |          |           |            |
| 20.0  | 24" Plug Valve   | EA   | 4        |           |            |
| 21.0  | 16" Plug Valve   | EA   | 2        |           |            |
| 22.0  | 12" Plug Valve   | EA   | 1        |           |            |
| 23.0  | 8" Plug Valve  | EA   | 1        |           |            |
| Tapping Sleeve and Valve Assembly   |  |      |          |           |            |
| 24.0  | 12" Tapping Sleeve & Valve Assembly  | EA   | 1        |           |            |
| Line Stop Assembly (various sizes)  |  |      |          |           |            |
| 25.0  | 16" Line Stop Assembly   | EA   | 1        |           |            |
| 26.0  | 8" Line Stop Assembly  | EA   | 1        |           |            |
| 27.0  | Offset Air Release Valve Assembly  | EA   | 3        |           |            |

**IFB Y18-741-TA REVISED BID SCHEDULE CONTINUED**

| <b>ITEM NO.</b>   | <b>DESCRIPTION</b>   | <b>UNIT</b> | <b>Est. QTY</b> | <b>UNIT COST</b> | <b>TOTAL COST</b> |
|---|--|-------------|-----------------|------------------|-------------------|
| <b>TINY ROAD RECLAIMED WATER MAIN (Items 28 – 38)</b>                         |  |             |                 |                  |                   |
| 28.0  | Erosion and Sediment Control   | LS          | 1               |                  |                   |
| 29.0  | Temporary Paving (cold mix overlay)<br>(various thickness)                         | SY          | 34              |                  |                   |
| 30.0  | Road Crossing Pavement Restoration   | SY          | 34              |                  |                   |
| 31.0  | Concrete Pavement Replacement<br>(sidewalks and driveways)(various<br>thicknesses) | SY          | 1509            |                  |                   |
| 32.0  | Concrete Curb and/or Curb and Gutter<br>Replacement                                | LF          | 30              |                  |                   |
| 33.0  | Sod Replacement  | SY          | 1660            |                  |                   |
| 34.0  | Abandon-in-Place Existing Pipe   | LF          | 382             |                  |                   |
| 35.0  | Remove Existing Pipe   | LF          | 1033            |                  |                   |
| Reclaimed Water Main with Fittings and Restrained Joints (RJ) (various sizes) |  |             |                 |                  |                   |
| 36.0  | 24" Ductile Iron Reclaimed Water Main  | LF          | 1420            |                  |                   |
| Gate Valve with Box (various sizes)   |  |             |                 |                  |                   |
| 37.0  | 24-inch Gate Valve   | EA          | 1               |                  |                   |
| 38.0  | Offset Air Release Valve Assembly  | EA          | 1               |                  |                   |

TOTAL ESTIMATED BID FOR SCHEDULE (Items 1 through 38) \$ \_\_\_\_\_

**IMPORTANT: Failure to submit your bid with the “Revised Bid Schedule” per this Addendum shall be cause for your bid to be rejected as non-responsive.**

## 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. Measurement for Payment
  - 4. 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.

### 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; 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 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.*

| <b>BID ITEM</b> | <b>Orange County Utilities<br/>MEASUREMENT AND PAYMENT ITEMS</b>   |
|-----------------|--|
| <b>1.0</b>      | <b>Mobilization, Demobilization, Bonds, and Insurance</b>  |
|                 | <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 1 through 6.</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</p> |

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|                  | 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.   |
| <b>2.0</b>       | <b>Preconstruction Audio-Video Documentation</b>   |
|                  | <ul style="list-style-type: none"> <li>a. Measurement: Measurement shall be based on the satisfactory submittal of a comprehensive pre-construction video in accordance with the County requirements and specifications (Section 01101).</li> <li>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.</li> </ul>   |
| <b>3.0</b>       | <b>Indemnification</b>   |
|                  | <ul style="list-style-type: none"> <li>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.</li> </ul>  |
| <b>4.0</b>       | <b>Project Record Documents</b>  |
|                  | <ul style="list-style-type: none"> <li>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 1 through 6</u></li> <li>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-builts drawings and tables.</li> </ul> |
| <b>5.0 – 6.0</b> | <b>Maintenance of Traffic (MOT)</b>  |
|                  | <ul style="list-style-type: none"> <li>a. Measurement: Measurement shall be based on satisfactory Maintenance of Traffic (MOT) in accordance with County requirements and Florida Department of Transportation (FDOT) standards.</li> <li>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 all access ways to all public roadways and all pedestrian traffic; including but not limited to, all necessary maintenance and nightly restoration, 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.</li> </ul>   |

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| <b>7.0 and 28.0</b>  | <b>Erosion and Sediment Control</b>   |
|                      | <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>  |
| <b>8.0</b>           | <b>Milling and Resurfacing</b>  |
|                      | <p>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.</p> <p>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 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.</p>   |
| <b>9.0 and 31.0</b>  | <b>Concrete Pavement Replacement (sidewalks and driveways) (various thicknesses)</b>  |
|                      | <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, bikepath removal and replacement, restoration, and clean-up for a complete installation.</p> |
| <b>10.0 and 32.0</b> | <b>Concrete Curb and/or Curb and Gutter Replacement</b>   |
|                      | <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 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.</p>                                   |
| <b>11.0 and 33.0</b> | <b>Sod Replacement</b>  |
|                      | <p>a. Measurement: Sod Replacement shall be measured in actual square yards of</p>  |

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|                      | <p>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>   |
| <b>12.0</b>          | <b>Install/Replace Fence</b>   |
|                      | <p>a. Measurement: Fence Replacement shall be measured in actual linear feet removed and replaced as measured along the centerline of the fence within the construction excavation. All additional fencing 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 as stated in the proposal for Fence Replacement and shall include all labor, materials, and equipment to remove and properly dispose of existing fence and install new fence including replacement fence, gate, support posts and concrete for a complete installation.</p>  |
| <b>13.0</b>          | <b>Bypass Pumping (various flows)</b>  |
|                      | <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 barriers; and all incidental work required to satisfactorily complete this item. Stormwater bypass piping and pumping is considered incidental to the piping installation and included in that item.</p>  |
| <b>14.0 and 34.0</b> | <b>Abandon-in-Place Existing Pipe</b>  |
|                      | <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, 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. 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.</p> |

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| <b>15.0 and 35.0</b> | <b>Remove Existing Pipe</b>   |
|                      | <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; completely drain and properly dispose of pipe contents; plug or cap; restoration, sod, clean-up; remove and salvage pipe of all services and sizes designated "to be removed" on the Drawings, 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>  |
| <b>16.0 – 19.0</b>   | <b>Force Main with Fittings and Restrained Joints (RJ) (various sizes)</b>  |
|                      | <p>a. Measurement: Force 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 Force Main w /Fittings and RJs 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, backfill, compaction, and grading, all testing, 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, removal and replacement of storm piping and all bypass pumping and piping required to maintain stormwater flows.</p> |
| <b>20.0 - 23.0</b>   | <b>Plug Valve with Box (various sizes)</b>  |
|                      | <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</p>  |

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|                      | 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. All included is any existing valve box adjustments to match final grades.   |
| <b>24.0</b>          | <b>12" Tapping Sleeve &amp; Valve Assembly</b>  |
|                      | <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>                            |
| <b>25.0 – 26.0</b>   | <b>Line Stop Assembly (various sizes)</b>   |
|                      | <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, restraining 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> |
| <b>27.0 and 38.0</b> | <b>Offset Air Release Valve Assembly</b>  |
|                      | <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, restoration and all other items required for a complete, acceptable and operable installation.</p>  |

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| <b>29.0</b> | <b>Temporary Paving (cold mix overlay) (various thickness)</b>   |
|             | <p>a. Measurement: Temporary Paving shall be measured in actual square yards of temporary paving furnished and installed in accordance with 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 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.</p>  |
| <b>30.0</b> | <b>Road Crossing Pavement Restoration</b>  |
|             | <p>a. Measurement: Road Crossing Pavement Restoration shall be measured in actual square yards of existing asphalt paving and subgrade removal and replacement 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 (maximum pay width of 8-feet). The length shall be as measured along the centerline of the pipe.</p> <p>b. Payment: Payment will be made at the contract unit price bid per square yard as stated in the proposal for Road Crossing Pavement Restoration 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 exiting pavement, installing high early concrete and asphalt surface into a properly prepared subgrade, traffic signalization repair, and temporary and permanent striping and markings in accordance with the County requirements and specifications.</p>  |
| <b>36.0</b> | <b>Reclaimed Water Main with Fittings and Restrained Joints (RJ) (various sizes)</b>   |
|             | <p>a. Measurement: Reclaimed Water Main installation regardless of type and size shall be measured in actual linear feet satisfactorily furnished and installed, 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 Reclaimed Water Main w/Fittings and RJs 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, backfill, compaction, and grading, all testing, 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> |
| <b>37.0</b> | <b>Gate Valve with Box (various sizes)</b>   |
|             | <p>a. Measurement: Measurement for Gate Valve with Box shall be made per actual number of gate valves with valve boxes satisfactorily furnished and</p>  |



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|  | <p>installed complete with covers and concrete collars. Gate valves included within tapping sleeve and valve, air release valve assembly, and fire hydrant pay items will not be measured for payment under this item.</p> <p>b. Payment: Payment for the Gate 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, operating nut extensions, test station box and cap, valve wrenches, restraining devices, covers, concrete collars, excavation, sheeting, shoring, bracing, dewatering, backfill, compaction, restoration, and all other items required for a complete, acceptable and operable installation. All included is any existing valve box adjustments to match final grades.</p> |
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PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION