

1410330446 Appendix A - Technical Specifications

College St. – Package C and Package G

Note: This Technical Specification is common to College St. Package C and Package G. There will be specific notations for Package specific sections/information. Where no specific notation exists then the section applies to both Packages.

Scope of Work:

Package C:

The Contractor will perform construction of approximately 2,210 LF of 8" water main, 332 LF of 6" water main, 24 LF of 4" water main and 22 LF of 2" water main with associated fittings and appurtenances. The project area is described as College St - Package C as part of the JEA Galvanized Pipe Replacement Program and as shown on the project drawings.

Road restoration will include approximately 3,894 SY of milling and resurfacing, 1,793 SY of Case X pavement repair, 416 SY of driveway replacement, 47 SY of sidewalk and replacement of various stormwater conveyance piping. Abandonment by grout filling of 2,460 LF of 6" existing force main is also included in the scope of this project as noted on drawing C-1, See note at STA 10+20.

Package G:

The Contractor will perform construction of approximately 665 LF of 8" water main, 2,400 LF of 6" water main, and 220 LF of 4" water main with associated fittings and appurtenances. The project area is described as College St - Package G as part of the JEA Galvanized Pipe Replacement Program and as shown on the project drawings.

Road restoration will include approximately 1,629 SY of milling and resurfacing, 615 SY of Case X pavement repair, 75 SY of driveway replacement, 646 SY of sidewalk and replacement of various stormwater conveyance piping.

901 CONTRACTOR PROPOSED PROJECT SCHEDULE

Contractor shall prepare AND SUBMIT WITH THE BID, a separate project schedule for each Package for the completion of the work as shown on the contract drawings. Detail of schedule shall include at a minimum each street segment to be completed including any partial clearances of water mains so that residents can be transferred over to the new water mains as soon as practical.

The Package G project area is in the immediate vicinity of Pinedale Elementary School. As such, Contractor shall adhere to the Sequence of Construction contained on Sheet 27 and complete Phases G1 through G4 before the start of the 2021/2022 school year, currently scheduled for August 10, 2021.

Contractor shall plan the remaining work on Package G, and all of Package C, to be substantially complete within 120 days from Notice to Proceed. An additional 30 calendar days shall be allotted for final restoration and Contract Completion.

902 BID DRAWINGS

Titled "Construction Drawings for JEA Galvanized Pipe Replacement Program College Street Project Area – Package G" and "Construction Drawings for JEA Galvanized Pipe Replacement Program College Street Project Area – Package C" as prepared by England-Thims & Miller, Inc. are attached.

903 GEOTECHNICAL REPORT

Titled “Geotechnical Engineering Report JEA Galvanized Pipe (Packages D-M)” No. 35:30388 prepared by ECS Florida, LLC is attached. This report is for College Street Area Packages D, E, F, G, H, I, K, L and M; for this bid, Contractors’ attention should be only for those borings shown in the **Package C** area (Borings B12, B13, and B14) and the **Package G** area (Borings B42, B43, B44, B45 and B46).

904 SUE TEST HOLE REPORTS

Twenty-three (23) test hole reports, shown in “Subsurface Utility Engineering Reports College St. **Package C**” prepared by ETM Surveying & Mapping Inc. are attached.

Thirty-six (36) test hole reports, shown in “Subsurface Utility Engineering Reports College St. **Package G**” prepared by ETM Surveying & Mapping Inc. are attached.

905 RESPONSIBLE BIDDERS LIST (RBL) GC-11 LOCATE LINE VERIFICATION

Company shall identify which subcontractor on JEA’s RBL GC-11 Locate Line Services Verification listing will be utilized for the installation of locate wire on PVC piping. The Company may obtain a list of prequalified persons and/or companies by contacting the JEA Procurement Bid Section, 21 W. Church Street, Suite 103, Jacksonville, FL 32202, (904) 665-6740, or by fax (904) 665-7294, or online at JEA.com.

906 LONG SIDE WATER SERVICE CONSTRUCTION

Installation of long-side services shall be performed in a manner to minimize the amount of pavement restoration. Boring as allowed by JEA W&S Standards of long side services is recommended.

907 WATER SERVICES – REMOVE & REPLACE

Payment for removal and replacement of existing services shall be made at the contract unit price for “Remove & Replace Existing Water Service” by size and type as shown on the bid form, noted on the drawing and in accordance with JEA W&S Standards.

When water services are transferred from the existing water main to the new water main, close coordination with the parcel resident to minimize impact of the water outage is required. Notice to the parcel resident shall be provided a minimum of one (1) business day prior to the transfer. Notice by door hanger and personal communication is recommended.

908 WATER SERVICES – REMOVE & RELOCATE

Payment for removal and relocation of existing services shall be made at the contract unit price for “Remove & Relocate Existing Water Service” by size and type as shown on the bid form, noted on the drawings for the relocation and in accordance with JEA W&S Standards. No separate payment will be made for meter box relocations.

Relocation of existing meter boxes and services are required as JEA has deemed that they are in undesirable locations as noted on the drawings, such as within driveways, sidewalks, etc.

This meter relocation effort could require work by the contractor on private property to ensure reconnection of meter to house service existing connection point at existing meter location. If work scope for the relocated service/meter is outside the scope services defined by the State of Florida for Utility Contractors, then contractor shall have work performed by a licensed plumber. Any work on private property shall be performed in close coordination with the parcel resident.

When water services are transferred from the existing water main to the new water main, close coordination with the parcel resident to minimize impact of the water outage is required. Notice to the

parcel resident shall be provided a minimum of 1 business day prior to the transfer. Notice by door hanger and personal communication is recommended.

909 REMOVAL/ABANDONMENT OF WATER MAINS

Company shall refer to the JEA W&S Standards for the removal and abandonment of all water mains. Company shall take every precaution to avoid contamination from all water sources adjacent to the scope of this project.

910 PERMITS AND PLANS APPROVALS

JEA has obtained the following permits for the project:

- COJ Plan Approval
- FDEP Individual Permit for a Domestic Wastewater Collection / Transmission System

The Company must obtain a SJRWMD Notice of Intent to Use Noticed General Permit for Short Term Construction Dewatering (Form 40C-22-0590-1) prior to the commencement of any dewatering. As part of the permit, a Notice to District of Dewatering Activity (Form RDS-50) must be submitted to the SJRWMD ten days before commencement of dewatering.

The Company is responsible for obtaining City of Jacksonville (COJ) Right-of-Way (ROW) Permit(s). The COJ approved plans will be made available to the Company to obtain the ROW Permit(s).

911 PERMIT COORDINATION MEETINGS

Company shall be responsible for being thoroughly familiar with all permit requirements prior to mobilizing and starting work associated with a particular permit. If a permit requires a notification or meeting with the issuing agency prior to starting work, Company shall be responsible for arranging said meeting and informing the JEA Representative. The following shall be attended by, but not limited to, the Company's Project Manager, Company's Site Superintendent, Permitting Agency Representative, JEA's Project Manager and JEA's CEI/Inspector.

912 CONNECTIONS TO EXISTING WATER AND SEWER UTILITIES

Company shall verify size and type of pipe at each connection prior to ordering materials for connections. Price for connections shall be a lump sum price to include the installation of restraints/sleeves as shown in the plans or as approved by JEA.

913 GRASSING/SODDING

The Company shall replace all sod in-kind. St. Augustine type grass/sod will not be allowed in City of Jacksonville rights of way.

914 CLEARING AND GRUBBING

Payment for clearing and grubbing shall not be paid for separately but shall be included in the cost of the associated item of work. Payment will be compensation in full for all clearing and grubbing required for the roadway right-of-way and for any other clearing and grubbing indicated or required for the construction of the entire project area including area of excavated trenches and where trenchless operations are required, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc. as required.

915 SWALE AND DITCH CONSTRUCTION/REGRAVING

The Company shall re-grade all existing swales and ditches as necessary to restore the swales and ditches to their original (or better) condition. No separate payment shall be made for re-grading or

construction of new drainage ditches as required for restoration but shall be included in the Bid Document for roadway paving replacement. Payment for sodding of swales and ditches will be separate.

916 DUST CONTROL

The Company shall utilize a water spray truck to mitigate dusty conditions when roadways are unpaved and construction areas are not sodded. No separate payment shall be made for dust control, all costs shall be merged with the associated item of work shown in the Bid Form.

917 EARTHWORK

It shall be the sole responsibility of the Company to evaluate the geotechnical findings and recommendations along with the construction drawings to determine the quantity of soil to be managed or removed/disposed and replaced to meet the requirements of the Contract Documents. No separate payment shall be made for stockpiling, managing, mixing, and/or removal, disposal, importation and placement of A-3 sand required for backfill and/or over-excavation (bedding) material for the pipeline(s) and structures, but all costs shall be merged with the associated item of work shown in the Bid Form. Excess and/or unsuitable material shall become the property of the Company and shall be disposed of outside of the right-of-way.

918 SURVEYING

The Company shall be responsible for staking the project stationing, easements and/or right-of-way boundaries. The survey datum used for this project is NAVD 1988.

919 EXISTING UTILITIES

Known surface and subsurface utilities are shown or noted on the drawings as accurately available information will permit. JEA does not guarantee the information shown or noted or that utilities other than those indicated (on the drawings) do not exist. It is the responsibility of the Company to notify each of the utilities at least (15) fifteen working days prior to construction and request that the location of their respective utility or material be located and staked in the field. Should the company encounter unidentified utility, work in the immediate area shall promptly cease and the JEA representative shall be advised. The JEA representative shall investigate the condition and propose remedial action. The Company is reminded of the laws of Florida requiring notification of Gas Companies, at least four (4) working days in advanced of any digging operation. The Company shall call the Sunshine State One Call of Florida (811) to request location of all facilities owned by utilities that participate in the locate program. Failure by the company to contact Sunshine One Call of Florida prior to digging shall obligate the company for damages to participating utility company and associated repair cost.

To reduce the disruption and cost of utility damages occurring in the COJ ROW and Easements, the Company shall prevent damages to existing utilities caused by its work through field verification of the location of existing utilities. In the case of open excavation, verification may be performed during the Company's work.

Company shall verify the location of existing utilities as needed to avoid contact. Existing utilities shall be exposed using detection equipment or other acceptable means. Such methods may include but shall not be limited to "soft dig" equipment and ground penetrating radar (GPR). The excavator shall be held liable for damages caused to the city's infrastructure and the existing facilities of other utility companies.

920 JEA FURNISHED MATERIAL

The Company understands and agrees that it shall be solely responsible for providing everything necessary to perform the Work and to be in full compliance with the Contract Documents, except for those items specifically listed herein as being provided by JEA.

Any use of JEA furnished items on non-JEA work is a breach of the Contract and a violation of the law. All JEA furnished items are the property of JEA when issued, stored by Company, and used in performance of the Work. The Company agrees that it shall use all JEA furnished items in a manner consistent with industry practice, codes, laws, considering the condition of the JEA furnished item, the skills of the individuals using the JEA furnished item, and all environmental conditions. The Company understands and agrees that where JEA and the Company shall share JEA furnished items, JEA usage shall always have priority over Company usage, and the Contract Administrator shall have sole authority to resolve any usage dispute and such resolution shall not result in any claim by Company.

The Company agrees to return to JEA, and to the location as established by a JEA Representative, any unused or salvageable items prior to final payment. The Company agrees that JEA has the right to audit and investigate the Company at any time how the Company is using JEA furnished items. JEA will bill the Company for unaccountable JEA furnished material at the current JEA cost.

The Company shall provide all labor and incidental materials to install JEA furnished material indicated. Payment shall be per the contract Unit Price as shown in the Bid Document.

JEA will be providing the following items:

JEA Supplied Pipe

JEA will be supplying the following material:

- ❖ Package C Part 1
 - 40 LF of 4" PVC DR-18 Pipe
 - 400 LF of 6" PVC DR-18 Pipe
 - 2,400 LF 8" PVC DR-18 Pipe

- ❖ Package G Part 1
 - 260 LF of 4" PVC DR-18 Pipe
 - 2,500 LF of 6" PVC DR-18 Pipe
 - 820 LF 8" PVC DR-18 Pipe

The Company shall furnish any additional pipe required to complete the work as indicated on the drawings.

The pipe shipment of JEA supplied material is anticipated to commence prior to the notice to proceed. The Company shall coordinate with the JEA Inspector to pick up the PVC pipe from JEA's designated storage yard in Jacksonville, Florida. No separate pay item will be provided to the contractor for this work but all costs (including loading of stored PVC pipe at JEA's material storage yard onto Company provided trucks, transport to the Company's material storage yard, and unloading JEA provided pipe) shall be incorporated in the associated line item of work as indicated on the bid form.

921 UTILITY POLE HOLDING / SUSPENDING

Company shall review the project and notify the JEA Project Manager of all anticipated holds/suspends within ten (10) days following the notice to proceed. JEA will be responsible for the coordination and provision of utility pole holds/suspends.

When the distance between a power pole and the trench is less than the trench depth, the contractor shall be responsible for coordinating with JEA Electrical personnel to secure power poles. The contact for JEA is:

RICHARD HEALD, EMAIL: healrs@jea.com

Note: A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED FOR AN OUTSIDE MEETING WITH JEA ELECTRICAL TO DISCUSS THE REQUIRED WORK. ADDITIONAL TIME WILL BE REQUIRED BY JEA ELECTRICAL FOR ANY REQUIRED WORK TO BE ACCOMPLISHED.

922 VALVE AND LOCATE WIRE BOX IDENTIFICATION MARKERS

The Company shall furnish and install fiberglass identification markers at all gate valve and locate wire box locations as directed by the JEA Representative. All costs associated with this work shall be included in the associated line item in the Bid Document.

923 WORK RESTRICTIONS

The contractor shall confine the active work area to no more than one block at a time **in each Package project area** to minimize resident disruption. Simultaneous work in each Package project area is encouraged to speed completion. Work in multiple areas within a Package project area requires JEA approval.

City of Jacksonville Traffic Engineering and Jacksonville Fire and Rescue Communications Center (FRCC) shall be notified of Road Closures / Detours. Provide dates and times of planned closures to trafficeng@coj.net at minimum 72-hours ahead of closure / detour.

924 PAVEMENT REMOVAL

Saw cuts must be used on all asphalt removal.

925 TEMPORARY PAVEMENT

Unit costs for pipes shall include all temporary pavements as necessary to restore the roadway after each working day, until final pavement repair is made.

926 PHASING

Any COJ standard pavement repair shall be completed within 10 calendar days or when 1,000 LF of roadway is disturbed in each Package project area after completion of the utility installation. All mobilization/demobilization required for rework/regrading of lime rock base, dust control, including asphalt paving shall not be paid for separately but shall be included in the cost of the associated items in the Bid Form.

927 COJ PAVEMENT MARKING REQUIREMENTS

- Pavement markings should be placed as shown on the plans and detail sheets. If no specific striping comments are noted on the drawings, the Company shall replace damaged/removed striping due to construction activities with like striping and/or reflectors.
- Any required temporary markings must be in place before opening lanes of traffic. Pay items for temporary pavement markings are to be included in the tabulation of quantities.
- The removal of existing pavement markings will be considered an incidental item with no additional compensation provided.
- All permanent pavement markings shall be extruded thermoplastic and meet current City of Jacksonville specifications and FDOT standard specifications, latest edition.

- Thermoplastic pavement markings are to be placed no sooner than 30 calendar days after the completion of the final pavement layer.
- A bituminous reflective pavement marker (RPM) adhesive meeting current City of Jacksonville and/or FDOT specifications shall be used on asphalt roadways.
- The Company shall use 4" x4" CLASS –B reflective pavement markers (RPMs) installed to meet current City of Jacksonville specifications and/or FDOT standard specifications. Acceptable examples are: Ennis Paint co., Model 911; Ray-O-Lite, Model AA-ARCII-FH; Apex, 921AR.
- Reflective pavement markers that do not conflict with permanent (thermoplastic) markings shall be placed on all final asphaltic concrete surfaces immediately after the temporary permanent striping is in place.
The Company SHALL contact the City Pavement Marking Inspector (904-387-8861) 48 hours PRIOR to installing any pavement markings of any City of Jacksonville roadway or streets.

928 SIDEWALK REMOVAL AND REPLACEMENT

The measurement and payment for this item shall be in accordance with JEA’s Water and Sewer Standard as specified in Section 801 X.1 and X.4 (Technical Specification Section 491.1 and 491.4.) In addition to these requirements, the following conditions apply:

- Payment of the sidewalk removal shall also include removal of all existing retaining walls, steps, handrails, etc. These existing improvements shall be removed as part of this work due to their proximity and/or connection to the existing sidewalk.
- Payment of the sidewalk replacement shall also include construction of all pre-existing items that were removed such as but not limited to: retaining walls, steps, handrails, etc. All existing improvements that were removed during construction shall be reconstructed in their existing location to their existing configurations utilizing the existing materials to provide an improvement that is equal to or exceeds the pre-existing condition.

929 WORK HOURS

The water main that this project replaces has continued to fail. Standard work hours are from 7:00 am to 6:00 pm. Bidding contractors should consider how they can best complete this installation assuming work hours are based on a five (5) day per week work week and shall account for the following: additional summer daylight hours; the need to complete Phases G1 through G4 in the Package G project area by August 10, 2021, as described in Section 901; and the anticipated traffic impacts of the start and end of school at Pinedale Elementary School, currently 8:30 a.m. and 3:00 p.m., respectively.