

## APPENDIX A – TECHNICAL SPECIFICATIONS

### T-LINE – JTB TO TOWN CENTER PARKWAY – TRANSMISSION FORCE MAIN

#### 901 SCOPE OF WORK

The scope of work specified herein includes the installation of approximately 8,925 LF of 24-inch PVC wastewater force main, 20 LF of 36-inch PVC wastewater force main, and 380 LF of 24-inch PVC wastewater force main (via two auger bores) along with associated fittings and appurtenances, located within an existing JEA Electric Transmission Line (T-Line) Corridor and along Forest Boulevard South.

All Work shall be done in accordance with the January 2019 Edition of JEA Water and Wastewater Standards Manual. The following is a link to the JEA Water and Wastewater Standards Manual:

[https://www.jea.com/Engineering\\_and\\_Construction/Water\\_and\\_Wastewater\\_Standards/](https://www.jea.com/Engineering_and_Construction/Water_and_Wastewater_Standards/)

The following scope of work will be defined as the base bid for this contract and shall include, but is not limited to, the following:

- Installation of approximately 8,925 LF of 24-inch PVC force main (via open cut), 20 LF of 36-inch PVC force main (via open cut), 380 LF of 24-inch PVC force main (via two auger bores), within City of Jacksonville (COJ) Right-of-Way (ROW), Florida Department of Transportation (FDOT) ROW, JEA Electrical Substation property, and JEA T-Line
- Mobilization/demobilization, general requirements, and insurance
- Coordination with JEA's environmental consultant (ESI contact – Gary Howell at 904-470-2200) prior to mobilization on any identification and temporary relocation of active Gopher Tortoise habitats
- Coordination with JEA's Electrical Group prior to mobilization on the Company's Work Plan addressing its staging, storage, pipe installation, and limits of disturbance areas within the JEA's T-Line easement and their proximity to electric transmission poles, guy wires and anchors, overhead lines, and substation
- Installation of Temporary Traffic Control (Maintenance of Traffic) plans, devices, and measures to construct the project
- Installation/maintenance of erosion & sediment control devices/measures (E&SC) & other aspects of the stormwater pollution prevention plan (SWPPP)
- Site work
- Clearing, grading, seeding, and sodding
- Restoration of FDOT Right-of-Way, COJ Right-of-Way, JEA Electrical Substation property, and JEA T-Line
- Restoration of JEA T-Line access road

- Installation of isolation valves and air/vacuum valves, and appurtenances as per the construction drawings
- Installation of connections to existing force mains
- Performance of all testing and swabbing required during construction
- Performance of all permits necessary to complete the work
- Performance of all site restoration to preconstruction (or better) condition

## **902 GENERAL CONDITIONS**

The General Conditions Lump Sum price shown on the Bid Form shall be compensation to complete the Work as required in this contract (except for items listed separately on the bid form), including but not limited to, Payment Bond, Performance Bond, Safety, Quality Control, Preparation of Daily Reports, Maintenance of Traffic, Attendance at Meetings, Scheduling, Testing (if not included elsewhere). Payment of the General Conditions Lump Sum Price shall be based upon the percentage of Work completed: However, if the Company executed bond(s) accompany the first pay request then the amount paid will be deducted from the associated subtotal. Also, the Company shall include the cost for performing survey of the existing roadway horizontal alignment (prior to initiating any construction or MOT) in their initial General Conditions payment. In the event that changes to the work are required that are covered under the Supplemental Work Authorization account, the General Conditions Lump Sum Price will not be increased unless the total value of the SWA exceeds the original SWA account provided in the original contract bid.

## **903 BID DRAWINGS**

Titled “Construction Drawings for T-Line – JTB to Town Center Parkway – Transmission Force Main” as prepared by Jacobs Engineering Group Inc. are attached.

## **904 GEOTECHNICAL REPORT**

Titled “Geotechnical Exploration and Evaluation Report; T-Line – JTB to Town Center Parkway – Transmission Force Main; Jacksonville, FL” prepared by CSI Geo, Inc., dated January 24, 2019 is attached. The Company should review the geotechnical boring logs completed for this project.

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

Upon request by JEA, 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, Customer Center 1<sup>st</sup> Floor – Room 002, Jacksonville, FL 32202, (904) 665-6740, or by fax (904) 665-7294, or online at JEA.com.

## **906 NOISE**

The Company shall comply with the City of Jacksonville (COJ) noise ordinance. The Company is responsible for any deviations from the noise ordinance that will require a noise variance. The Company is responsible for obtaining the noise variance and all applicable fees in the event that one is required.

## 907 TIE-IN CONNECTIONS SEQUENCING CONSTRAINTS

The following tie-in connections sequencing constraints are to emphasize critical tasks related to connections to existing systems for the work in this Contract. It is not a complete list of all work to be completed.

- Indicate required interruptions of existing operations on Progress schedule. Interruptions will be permitted to the extent that existing operation of the pump stations will not be jeopardized and identified constraints are satisfied.
- Prior to commencing Work that requires existing operating facilities to be taken out of service, Company shall submit to JEA for review and approval, plans showing how the Work will be coordinated with JEA's operations and maintenance.
- At least 14 days in advance, Company shall submit a detailed sequence of events, indicating the date and time for flow interruptions and/or diversions, and the duration of Work for the various events. Company's detailed written plan shall include operational considerations related to the Work, including method of flushing.
- All connections and ties to the existing system and transfer of services shall be performed by the Company under JEA's direction. The Company shall not operate any valves in the existing system.
- Connection to the existing system may depend on the closure of certain valves. The existing valves may not be operable or may not seal properly. The Company shall coordinate with JEA in advance of the connections to determine the condition of existing valves.
- JEA reserves the right to postpone connections to existing utilities due to operational and/or weather-related concerns.
- Work shall proceed continuously to complete connections in the minimum time. Minimize shutdown times by thorough advanced planning. Have required equipment, materials, and labor on hand at time of shutdown.
- Interruption of service is not allowed during peak flow periods or holidays.

## 908 COMPANY'S USE OF PREMISES

Company shall have complete use of the premises for the performance of the Work. Prior to mobilization, the Company's Work Plan shall address its staging, storage, pipe installation, and limits of disturbance areas within JEA's T- Line, JEA Electrical Substation property, the FDOT ROW, and the COJ ROW. Also, the Company shall coordinate activities with any other Company who will be performing work in the same general area.

All work shall take place within the JEA T- Line, JEA Electrical Substation property, the FDOT ROW, and the COJ ROW. Access must be maintained for JEA T- Line and JEA Electrical Substation operation and maintenance at all times during construction.

The Company is responsible for securing and obtaining any additional off-site storage areas necessary.

Coordinate uses of premises with JEA, FDOT, COJ, and any other contractors.

Company shall assume full responsibility for security of all its and its subcontractors' materials and equipment stored on the site.

If directed by the JEA or ENGINEER, move any stored items which interfere with operations of JEA or other contractors.

Company is responsible for obtaining and paying for the use of additional storage or work areas if needed to perform the work.

### **909 COMPANY'S STAGING, STORAGE AND STOCKPILE AREA**

No additional staging, storage, and stockpile will be made available by the JEA along the project site. The Company is not allowed to store any equipment or materials within 75-feet of an electrical structure (including, but not limited to; power poles, guy wires, and anchors), outside the right-of-way, and JEA's property and easements. The location will be agreed to upon and discussed at the pre-construction meeting.

### **910 JEA ELECTRICAL T-LINE ENTRY/EXIT REQUIREMENTS**

The entry and exit locations for the JEA T-Line shall be as follows:

South of JTB (SR 202): The entry and exit locations for the JEA T-Line shall be from Deerwood Park Boulevard. The use of the existing JEA gate at the north end of the JEA T-Line at the JTB (SR 202) FDOT Right-of-Way shall only be used when coordinated in advance with JEA Electrical Utility Group and FDOT. In no case shall the existing gate at the JTB (SR 202) FDOT Right-of-Way be used to exit the T-Line and proceed east on JTB (SR 202). All construction traffic shall exit the T-Line via Deerwood Park Boulevard.

North of JTB (SR 202) to South of Gate Parkway North: The entry and exit locations for the JEA T-Line shall be from the existing JEA gate on the south side of Gate Parkway North. The use of the existing gate at the south end of the JEA T-Line at the JTB (SR 202) FDOT Right-of-Way shall only be used when coordinated in advance with JEA Electrical Utility Group and FDOT. In no case shall the existing gate at the JTB (SR 202) FDOT Right-of-Way be used to exit the T-Line and proceed west on JTB (SR 202). All construction traffic shall exit the T-Line via Gate Parkway North.

North of Gate Parkway North: The entry and exit locations for the JEA T-Line shall be from Gate Parkway North, Forest Boulevard South, and JEA Electrical Substation access.

The existing access drive through the JEA T-Line shall be maintained to preconstruction conditions. The Company shall maintain T-Line access to JEA at all times.

If the existing fence at the JEA T-Line at the FDOT Right-of-Way needs to be temporarily removed or taken down for construction, the Contractor shall provide personnel to monitor the temporary fence opening for as long as the fence is temporarily removed or taken down (24 hours a day, 7 days a week). The designated monitor's primary function shall be to monitor the opening and prevent unauthorized access. Any unauthorized entry shall be reported immediately to JEA and City of Jacksonville Sheriff's Office. The fence shall be restored to

preconstruction conditions, in accordance with FDOT Index 802, immediately upon completion of the construction activity necessitating its' temporary removal.

### **911 JEA ELECTRICAL T-LINE ACCESS ROAD RESTORATION**

The Company shall provide all necessary labor, materials and equipment to restore any disturbed portions of the JEA T- Line Access Road to match preconstruction conditions and width. The manner in which this is accomplished shall be left to the discretion of the Company, subject to the requirements of the Contract and the prior approval of the JEA Representative. JEA Representative approval in no way relieves the Company of any responsibilities or liabilities resulting from the restoration method chosen.

Stone aggregate (limerock) aggregate shall be used to provide a final driving surface for the restored portions. A \$20,000 allowance is included as a line item in the Bid Form Worksheet and payment(s) for costs associated for road repair will be approved using the same Cost Reimbursable (Time and Materials) Method as used for Supplemental Work Authorizations.

### **912 ELECTRICAL T-LINE REQUIREMENTS**

Disturbance within the JEA T-Line shall be limited to the areas outlined by silt fence on the construction drawings. The Company shall submit a construction staging, storage, pipe stringing, and limits of disturbance plan to the JEA Electrical Utility Group and Environmental Group via the JEA Engineer for approval. All equipment and construction activities shall be kept outside a minimum twenty-foot (20') radius of all transmission lines (vertically and horizontally).

The Company shall comply with the safety requirements and minimum clearances as set forth in OSHA Standard Number 1926.1408. JEA requires a minimum twenty-foot (20') separation for 138kV transmission lines.

The Company shall coordinate with the JEA Electrical Utility Group for entry/exit protocol for the JEA T-Line.

The Company shall maintain access to JEA Electrical Substation and JEA T-Line to JEA at all times. If access road is impacted or blocked, the Company shall coordinate with the JEA Electrical Group a minimum of 2 weeks in advance.

### **913 CONSTRUCTION WORK AREA**

All utility installation shall be within FDOT ROW, COJ ROW, or on the parcels noted to be JEA easements or owned by JEA. Any utility installation or work outside the FDOT ROW, COJ ROW, or the parcels noted to be JEA easements or owned by JEA will not be allowed and any costs associated with relocating improperly installed utility lines or trespassing on non-JEA acquired properties will be the responsibility of the Company.

Any additional property required for the T-Line – JTB to Town Center Parkway Transmission Force Main shall be obtained by the Company at no cost to JEA.

### **914 PERMITS AND PLANS APPROVALS**

JEA has applied for the following permits for the project:

- COJ Plan Approval – CDN 4161.271, issued March 5<sup>th</sup>, 2019
- Florida Department of Environmental Protection (FDEP) Permit to Construct a Domestic Wastewater Collection/Transmission System, Permit No. 0011224-861-DWC, issued February 19<sup>th</sup>, 2019.
- FDEP Environmental Resource General Permit, Permit No. 16-0372652-001-EG, issued March 14<sup>th</sup>, 2019.
- FDOT Utility Permit, Permit No. 2019-H-294-00051, issued March 4<sup>th</sup>, 2019.
- US Army Corps of Engineers Nationwide Permit, Permit No. SAJ-2019-00361 (NW-PRJ), issued February 21<sup>st</sup>, 2019.

Prior to commencing Work the Company is responsible for obtaining the following permits, including but not limited to:

- City of Jacksonville (COJ) Right-of-Way Permit
- COJ Site Clearing Permit (Contractor to pay tree mitigation fee prior to City issuing permit)
- FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP), DEP Form 62-621.300(4)(b)
  - It is recommended that the Company acquire the FDEP dewatering permit as part of the Construction General Permit.
- FDOT General Use Permit (for MOT signage and detours utilizing FDOT right-of-way)
- SJRWMD Notice to District of Dewatering Activity – Form 40C-2-900-12
- SJRWMD Individual Consumptive Use Permit if unable to qualify for general permit under Rule 40C-2.042(9)

All costs associated with obtaining such permits shall not be paid for separately but shall be included in the cost of the associated item of work. The Company shall comply with all conditions of permits issued for the Work, either directly or indirectly, issued by federal, state, or local governmental agencies, which are hereby incorporated as part of these Contract Documents.

## **915 FDOT UTILITY PERMIT**

The Company shall comply with all requirements and instructions of the latest edition of FDOT's Standard Specifications for Road and Bridge Construction and FDOT Utility Permit including, but not limited to, the following:

- Dewatering Plan signed and sealed by a Florida licensed professional engineer prior to commencing work.
- Shoring Plan signed and sealed by a Florida licensed professional engineer prior to commencing work.
- Coordinate with FDOT Maintenance Manager Permits a minimum of two (2) business days prior to starting work within FDOT Right-of-Way to schedule a pre-construction meeting.

**916 DEWATERING**

If the Company encounters groundwater, the Company shall be responsible for utilizing a dewatering system(s) to remove water from the excavations. Prior to beginning any dewatering activities, the Company shall comply with all requirements listed in Florida Department of Environmental Protection (FDEP) Dewatering Regulations.

Additionally, prior to any dewatering, the Company shall apply for a St. Johns River Water Management District (SJRWMD) Generic Permit for Short Term Dewatering and comply with all SJRWMD requirements.

If the above requirements are not followed, the Company shall be held liable for any fines and/or violations incurred by JEA.

**917 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 attend, but not limited to, the Company's Project Manager, Company's Site Superintendent, Permitting Agency Representative, JEA Project Manager and JEA Inspector.

**918 WORK RESTRICTIONS**

Wetland Crossing (approximately STA 76+20 to STA 81+65, STA 82+25 to STA 89+60, and STA 90+45 to STA 91+35): Per F.A.C 62-330.453(3)(g) the maximum width of the excavated trench is limited to 8 feet, with temporary spoil storage banks not to exceed 10 feet, within the delineated wetland boundary. To the extent practical, the Company is required to replace the top soil last when backfilling the trench within the delineated wetland boundary. No staging or material storage shall occur within the delineated wetland boundary.

**919 CONNECTIONS TO EXISTING WATER AND SEWER UTILITIES**

Company shall verify size and type of existing pipe at each connection prior to ordering materials for connections. All costs associated with connections to existing water and sewer utilities shall not be paid for separately but shall be included in the cost of the associated fittings/restraints/sleeves as shown in the plans or as approved by JEA. Any additional sleeves not shown on the Drawings or accounted in the bid tab shall be at the Contractor's expense, unless otherwise authorized by JEA.

**920 GRASSING/SEEDING/SODDING**

Payment for seeding and sodding shall not be paid for separately but shall be included in the cost of the associated item of work. The Company shall replace all sod in-kind. St. Augustine type grass/sod will not be allowed in City of Jacksonville Right-of-Ways. Disturbed areas within FDOT Right-of-Way shall be restored to original or better condition using sod that complies with FDOT requirements and specifications. All disturbed areas shall be restored by resodding (if

grass was established pre-construction) or seeding and mulching in accordance with Section 441 of the JEA Water and Wastewater Standards Manual, titled, Grassing.

## **921 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.

## **922 LANDSCAPING**

The Company shall be responsible for protection and preservation of all trees, palms, shrubs, irrigation systems, landscaping, signs, and etc. along the route of the proposed work including hand digging, removal and storage of such and subsequent replacement to the fullest extent possible of the pre-existing condition. No trees shall be removed in the FDOT Right-of-Way or COJ Right-of-Way unless designated for relocation or removal on the construction drawings. All costs associated with such shall not be paid for separately but shall be included in the cost of the associated item of work shown on the Bid Form.

## **923 SWALE AND DITCH CONSTRUCTION / REGRADING**

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 cost of the associated item of work shown on the Bid Form.

## **924 DUST CONTROL**

The Company shall utilize a water spray truck to mitigate dusty conditions when roadways are unpaved and construction areas have a lack of vegetative cover.

## **925 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 in order 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 on 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 and easements.

## **926 UPDATED SURVEYING**

In addition to the Surveying requirements set forth elsewhere in this solicitation, the Company shall be responsible for staking the project stationing, JEA Property and easements, and/or right-of-way boundaries. The survey datum used for this project is NAVD 1988. Staking shall be



maintained throughout construction, including resurveying and restaking if the stakes are damaged or removed. All surveying shall be performed by a Professional Surveyor and Mapper (PSM) licensed in the State of Florida.

## **927 FORCE MAIN PROFILE ELEVATIONS**

The force main profile shown on the contract drawings indicate the station and elevation for the air/vacuum valves (ARV). The ARV must be located at a high point. To ensure this requirement is met, the Company shall take station and elevation readings of top of force main pipe at 100 foot intervals, and shall include additional elevation readings as necessary to capture all high points should any occur between the stated intervals. The data collected shall be taken during the progression of the pipeline installation. Once the stations and elevations are collected, submit to the JEA Representative prior to installing the ARV. The JEA Engineer will review the elevations to determine if the station (location) for the ARV needs to be adjusted from that shown on the force main (FM) profile. If the Company installs the pipeline such that additional high points are created on the pipeline profile beyond that shown on the contract drawings, the company shall be solely responsible for furnishing and installing additional ARV/manholes at each of these high points. Elevations should be referenced to the survey benchmark.

## **928 EXISTING UTILITIES**

Known surface and subsurface utilities are shown or noted on the drawings as accurately available information will permit. The 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. JEA shall investigate the condition and propose remedial action. The Company is reminded of the laws of Florida requiring notification of Gas Company, 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 FDOT ROW, COJ ROW, JEA Property, and JEA 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.

## **929 COORDINATION OF CONSTRUCTION WITH EXISTING UTILITIES**

The Company shall establish liaison with and coordinate work with (including; but, not limited to) JEA, AT&T, TECO/Peoples Gas, and Comcast to prevent interference with overhead and buried electrical, telephone, and television cables. AT&T, TECO/Peoples Gas, Comcast and others will need time to relocate their facilities.

The Company shall at all times conduct his operation so as to interfere as little as possible with the existing utilities. The Company shall develop a program in cooperation with JEA and interested representatives of Utilities and City agencies, which shall provide for the construction of, and putting into service, the new work in the most orderly manner possible. This program shall be adhered to, except as deviations there from are expressly permitted. All work of connecting with, cutting into, and reconstructing existing pipes and structures shall be planned so as not to interfere with the operation of the existing utility.

## **930 UTILITY POLE HOLDING / SUSPENDING**

Holding or suspending of utility poles including power poles and telephone poles shall be performed as needed, and when trenching or excavating is within a horizontal distance from the pole that is less than the depth of the trenching or excavation. Work shall include, but not limited to, furnishing of all material, labor, supervision, tools, and equipment as required to hold/suspend utility poles. 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. Notice, giving the exact date and time, for each hold/suspend, shall be provided by the Company in writing to the JEA Project Manager at least two weeks in advance of each hold/suspend. No separate pay item will be made to the Company separately but shall be included in the cost of the associated items in the Bid.

## **931 AUGER BORING (JACK AND BORE)**

The quantity to be paid for will be the actual number of linear feet of each size casing and method of installation installed in accordance with Specification Section 02342. Measurement shall be made along the horizontal projection of the center line of the casing. Payment for work will be made at the Contract Unit Price and shall be full compensation for the items of work, complete, including steel casing pipe; casing spacers; pipe joint restraints and total restraining system required on the carrier pipe (force main piping) in accordance with Specification Section 02342; locate wiring; installation, monitoring, and removal of geotechnical instrumentation and monitoring equipment including, but not limited to, Settlement Monitoring Points (SMPs) and Piezometers in accordance with Specification Section 02344; excavation; de-watering; placing and removing all traffic signs and barriers and maintaining traffic; as-builts; and all incidental work required to complete the work including all materials, labor, tools, and equipment.

## **932 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.

**933 SWABBING AND PRESSURE AND LEAKAGE TESTING**

The Company shall swab and test pipelines installed in accordance with Section 429 of the JEA Water and Wastewater Standards prior to acceptance of the pipeline by JEA or connecting the pipeline to any existing pipeline or facility. The Company shall submit to JEA for review the Company's proposed source of testing fluid (potable water).

**934 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-ARCIIFH; 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 Pavement Marking Inspector (Danny Howard - 904-255-7550) 48 hours PRIOR to installing any pavement markings of any City of Jacksonville roadway or streets.

**935 ROADWAY RESTORATION**

Company shall perform survey of existing roadway horizontal alignment and vertical grade and of the existing structures and appurtenances for the Work area prior to initiating any construction. No separate payment shall be made, but all costs shall be included in the lump sum cost of the General Conditions line items. Intent is to restore existing roadway, structures and appurtenances to existing alignment, width, and grade to match existing elevations after construction is performed.

Damage to existing features, including but not limited to asphalt, drives, fencing, signs, and lights, will be replaced at the Company's expense unless otherwise authorized by JEA.

### **936 TRAFFIC SIGNAGE**

Costs incurred by the Company to provide new signage and pavement markers or remove and replace existing signage as necessary to accomplish the work shall not be paid for separately but shall be merged with the cost of the associated item of work. Damaged signage shall be replaced with new signage. All signage and pavement markers shall be in accordance with the drawings and COJ and FDOT requirements.

### **937 UPDATED AS BUILTS**

Upon submission of each payment application, Company shall furnish to the JEA Engineer a photocopy “redline” set of drawings identifying those field changes made to the Work to date, along with a photocopy set of the associated field notes. Revisions and recording of information on the photocopy set of drawings shall be done in scale in red ink clearly and accurately identifying those changes in the Work by a competent drafter. All “As-Built” information shall be recorded and kept current during the progress of the Work. The JEA Engineer may review and comment on the drawings which shall be incorporated into the next month’s as-built submittal. Failure to incorporate changes the following month may result in denial of pay application request. These requirements only supplement the requirements of the General Conditions.

When the payment of application submitted includes associated items of final restoration for a project, or a portion of the project thereof, then the associated final as-builts shall be submitted as a “redline” marked photocopy set of drawings for that pay period. The JEA Engineer may review and comment on the drawings with the view toward final as-built submittal. The subsequent month submittal made with the payment application shall incorporate a photocopy set of CADD drawing final as-builts. The JEA Engineer shall review and comment on the photocopy set of CADD drawings which shall be incorporated into the final as-built submittal. These requirements only supplement the requirements of the General Conditions.

### **938 QUALITY CONTROL AND QUALITY ASSURANCE**

The Company shall provide Quality Control to ensure the Work is performed in accordance with the Contract. Quality Control shall be appropriate for the nature of the Work and shall be conducted in a manner consistent with sound quality management and industrial engineering principles. The Company shall have only personnel trained in Quality Control techniques and experienced with the nature of the Work perform the Quality Control function.

JEA may perform Quality Assurance activities. Such activities whether performed or not, do not in any way limit or reduce the Company's requirements. JEA may become aware of quality related problems during its performance of Quality Assurance but has no obligation to notify the Company of its findings. The Company shall provide access to all areas of Work, including the Company's facilities, for JEA Quality Assurance personnel and JEA Representatives. JEA will conduct Quality Assurance activities so as not to excessively interfere with the Work, however, where JEA Quality Assurance personnel request specific actions of the Company, the Company shall comply with the request and agrees that such compliance is included as part of its Contract Price.

### **939 REPORTING**

The Company shall provide daily reports and other reports as defined in the Contract Documents.

Where the reporting frequency is daily, reports shall be submitted by noon of the following workday. Where the reporting frequency is weekly, reports are due by Monday at noon, covering the prior workweek. Where Monday is a Holiday, the reports are due at noon on the next workday. Where reports are due monthly, reports are due by noon on the first business day of each month. Sample forms for reports may be included in the Contract Documents. Where they are included they are to be used. Where they are not included, the Company shall provide a sample of its proposed report format for each report to the Contract Administrator at least one-week prior to its initial due date. The JEA Engineer will review and either approve or reject use of the report. Where proposed report is rejected, Company shall resubmit revised report formats, until JEA Engineer approves format. Reporting cycle shall begin upon PO date, or, if used, date of Notice to Proceed.

### **940 JEA COMPANY / SUBCONTRACTOR SAFETY REQUIREMENTS**

Company and Subcontractors must be prequalified under JEA's safety prequalification program. Bids from Companies not prequalified under the safety program will not be opened. Subcontractors do not need to be safety prequalified at time of bid opening but must be prequalified before they step on the jobsite. To inquire as to status of safety prequalification, contact Jerry Fulop, JEA, 21 W. Church Street, Jacksonville, FL 32202, (904) 665-5810, e-mail: fuloje@jea.com

Company agrees to abide by all JEA's Safety Rules and Regulations in accordance with JEA Company Safety Requirement. In addition, ALL Company employees will be required to attend and successfully complete Company's orientation and supervisor's training at Company's expense prior to the start of any work activities. This is a condition of employment for Company and Subcontractors who perform work for JEA. There will be at least four (4) categories of training mandated. 1) Orientation, 2) Supervisor, 3) Competent Person, and 4) Certified Flagger.

**ORIENTATION** - Required one day training class for ALL personnel working at JEA's sites. Acceptable training will be EITHER attendance at an OSHA 10-hour class in the last two years (will require an OSHA issued card for proof) or attend the NCCER (National Center for Construction Education and Research) 8-hour Orientation. Company personnel utilizing the OSHA 10 Hour class must also attend the JEA 2-Hour Operation specific training. This training must be completed prior to starting work on a JEA job site.

**SUPERVISOR** - Orientation and the JEA Safety Leadership Development (SLD) Class. This requirement is for ALL employees paid as a foreman, general foreman, superintendent or any employee that will direct or may be expected to direct work.

**CERTIFIED FLAGGER** – All Company's performing any construction to or on City of Jacksonville, or State of Florida streets and highways shall provide certified flaggers to direct traffic in accordance with the approved MOT of the project.

NOTE: OSHA ten (10) hour classes are available from the following: Trained and Certified OSHA Instructors, Consultants, Safety Councils, etc. Other training mandated by JEA has been developed and approved by the NCCER. This training will be available from Certified Master Instructors, JEA, Northeast Florida Safety Council or other approved sources and will be tracked in the form of an individual transcript for each employee by NCCER.

Company may request exemption for specialty work based on task to be performed, hazard involved, and duration of work.

#### **941 CUSTOMER SERVICE PLAN**

The Company's Customer Service Plan to achieve customer satisfaction requirements as determined by JEA and JEA Project Outreach shall include, but is not limited to the following:

- Name of Company's Customer Service Representative
- Office phone number
- Cell phone number
- Email address
- Fax number
- Detailed flow chart outlining how the Company will handle customer concerns
- Preemptive customer satisfaction control measures (such as door hangers provided by JEA, and neighborhood meetings in conjunction with JEA staff)
- Construction best practices that eliminate damage to customers' property including, but not limited to, cracked driveways, tire ruts in customers' yards, blocking customers' access to driveways, cutting customers' services during tie-in, excessive noise from construction equipment, and elimination of dust during construction Work.
- Providing access for home owners, mail delivery, and garbage/yard debris/bulk pick-up.

#### **942 SUPPLEMENTAL ENDANGERED SPECIES PROTECTION SPECIFICATION**

**Florida Fish and Wildlife Conservation Commission (FWC) Gopher Tortoise Temporary Exclusion Permit Conditions:**

- The Company's limits of disturbance shall not encroach within 25' of an identified active gopher tortoise burrow. If the limits of disturbance, including silt fence installation, must encroach within the 25' radius, the gopher tortoise shall be relocated by a JEA environmental representative certified to perform such work (ESI contact - Gary Howell at (904) 470-2200). The Company shall remain vigilant of any other gopher tortoises other than those noted on the construction drawings. Should the Company encounter any gopher tortoises or burrows, the Company shall notify the JEA Engineer and JEA environmental representative (ESI contact - Gary Howell at (904) 470-2200) immediately.
- Only individuals who are in possession of a valid permit or authorization issued by the United States Fish and Wildlife Service to capture or possess an eastern indigo snake (*Drymarchon corais couperi*) are permitted to physically handle these snakes. If individuals without this permit or authorization encounter an eastern indigo snake during attempts to capture gopher tortoises or during subsequent land alteration or development activities within the property, all movement of heavy equipment and land alteration or development activities within the vicinity of the snake shall cease to allow the snake to vacate the area.

No movement of heavy equipment, or land alteration or development activities within the vicinity of the snake shall resume until the snake has vacated the work area.

- Before attempting to capture any gopher tortoises for relocation the Permittee shall either install filter fabric or other comparable fencing, buried at least eight inches into the ground, along the boundary separating the donor site utility construction corridor (“utility corridor”) from the recipient site(s), or utilize other methods approved by the FWC to keep gopher tortoises out of the utility corridor. If fencing is installed, it shall be removed immediately following completion of the utility installation and restoration of the gopher tortoise habitat within the utility corridor. Habitat restoration shall include restoring the pre-construction ground elevations and either seeding or sodding the utility corridor to provide suitable forage for gopher tortoises.
- Either this original permit, or a complete copy, shall be clearly posted at the affected site at all times while engaged in the permitted tortoise’s relocation activities.

**Other Items to provide within Construction Information:**

Gopher Tortoise Information:

- Silt fence is defined by FWC as: temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched. There are two types: 1) the silt fence is a temporary linear filter barrier constructed of synthetic filter fabric, posts, and, depending upon the strength of the fabric used, wire fence for support; 2) the filter barrier is constructed of stakes and burlap or synthetic filter fabric. These types of silt fencing are useful for temporary exclusion but are generally not durable enough for six month-enclosures on recipient sites. FWC recommends a type of silt fencing produced by Belton Industries (#935). This is a durable type of silt fencing (36 in x 75 ft; pre-assembled, double-stapled, with oak stakes) that has been field-tested as an enclosure material for gopher tortoises. The manufacturer is Belton Industries, PO Box 127, Belton, SC; 800-845-8743; [www.beltonindustries.com/silt.html](http://www.beltonindustries.com/silt.html). Distributors include Pallen Enterprises, Conyers, GA (770-922-1812) and Certified Slings, Ft. Myers, FL (239-334-1343).
- All site crew shall be required to attend an education presentation discussing the material below.
- Signs summarizing the information and what to do if you encounter a gopher tortoise will be provided.
- Description of the Gopher Tortoise and its Burrow
- The adult gopher tortoise is a large land turtle that burrows underground. Juvenile gopher tortoises can be as small as a silver dollar.
- Their top shells and skin are brown in color, with the bottom of their shells being more yellow in color. Younger tortoises can have larger areas of yellow on their top shell and have lighter colored skin.
- Tortoises dig burrows up to nine feet deep and 20 to 30 feet long with a large chamber at the bottom.
- Burrows are characterized by half-moon shaped openings with a large sandy apron located at the mouth of the burrow.
- Gopher tortoises are herbivores that feed primarily on wiregrass, broadleaf grasses, legumes and non-legume forbs. They are considered opportunistic feeders and will usually

eat what is available to them. Active during the day, they spend time foraging, basking and traveling to other tortoise burrows. The remainder of the time is spent at the mouth of the burrow or in the burrow, depending upon daytime temperatures.

### **Federal and State Protection Status and Penalties**

#### **Federal**

- Listed as “Threatened” and therefore covered by the Endangered Species Act.
- Definition of a “take” – a take is defined as “harassing, harming, pursuing, hunting, shooting wounding, killing, trapping, capturing or collecting, or attempting to engage in any such conduct, or possessing, selling, delivering, carrying, transporting or shipping.”
- Penalties for a “take” – violations of the Endangered Species Act can result in civil and criminal penalties of up to a \$13,000 fine and a year in jail.

#### **State – Florida Fish and Wildlife Conservation Commission (FWC)**

- Rule 68A-27.004 (F.A.C.) - The gopher tortoise is declared to be “Threatened.”
- No person shall take, attempt to take, pursue, hunt, harass, capture, possess, sell or transport any gopher tortoise or parts thereof or their eggs, or molest, damage, or destroy gopher tortoise burrows, except as authorized by FWC permit or when complying with FWC approved guidelines for specific actions which may impact gopher tortoises and their burrows.
- Only those authorized by FWC as an Authorized Agent and holding the appropriate permit specific to the project are authorized to handle any observed gopher tortoises.

### **WHAT TO DO IF YOU ENCOUNTER A GOPHER TORTOISE OR ITS BURROW DURING CONSTRUCTION ACTIVITIES**

- If you encounter a gopher tortoise burrow within the footprint of construction delineated by the silt fencing:
- STOP all work in the vicinity. Call JEA environmental representative (Gary Howell at 904-470-2200) immediately. If Gary Howell cannot be reached, provide the following information to the receptionist: Your name, telephone number at which you can be reached, the name and the location of the project site, and an appropriate contact will get back to you ASAP.
- If a live gopher tortoise is encountered during construction:
- STOP all work in the vicinity. Call JEA environmental representative (Gary Howell at 904-470-2200) immediately. If Gary Howell cannot be reached, provide the following information to the receptionist: Your name, telephone number at which you can be reached, the name and the location of the project site, and an appropriate contact will get back to you ASAP.
- If a dead gopher tortoise encountered:
- STOP all work in the vicinity. Call JEA environmental representative (Gary Howell at 904-470-2200) immediately. If Gary Howell cannot be reached, provide the following information to the receptionist: Your name, telephone number at which you can be reached, the name and the location of the project site, and an appropriate contact will get back to you ASAP.



**Appendices to provide within Construction Information:**

- Gopher Tortoise Temporary Exclusion Permit Application #XXXXXX (Shall be posted on-site)
- Gopher Tortoise Temporary Exclusion for Major Linear Utility Corridors Permit #XXXXXXX (Shall be posted on-site)