

APPENDIX A - TECHNICAL SPECIFICATIONS

112-19 19 Construction Services for Emory Circle Water Main - From Cornell Rd along Rollins Ave and Tulane Ave to Emory Circle

Table of Contents

1. SCOPE OF WORK..... 3

2. BID DRAWINGS 3

3. GEOTECHNICAL REPORT 3

4. ROW PERMIT..... 3

5. BASIS OF AWARD 3

6. BID PRICING (INCLUDED IN FRONT ENDS, BUT DOES NOT LIST EACH ITEM) 3

7. PERMITS..... 4

8. SURVEYING 4

9. CLEAR AND GRUB..... 4

10. EARTHWORK 4

11. LANDSCAPING 4

12. RESTORATION..... 5

13. SOD RESTORATION 5

14. TRENCH EXCAVATION 5

15. COORDINATION OF CONSTRUCTION WITH EXISTING UTILITIES 6

16. COMPANY’S STAGING, STORAGE AND STOCKPILE AREA 6

17. LOCATION AND PROTECTION OF EXISTING PROPERTY - ON NON-RIGHT OF WAY ISSUES 6

18. PAVEMENT REPAIR (ONLY FOR OPEN CUT OPTION) 7

19. ROADWAY RECONSTRUCTION..... 7

20. TEMPORARY ROADWAYS..... 7

21. PAVEMENT REMOVAL (OPEN CUT ONLY)..... 7

22. COJ PAVEMENT MARKING REQUIREMENTS (OPEN CUT ONLY)..... 7

23. SWALE AND DITCH CONSTRUCTION/REGRAIDING..... 7

24. DUST CONTROL 8

25. PERMIT COORDINATION MEETING 8

26. CONNECTIONS TO EXISTING UTILITIES 8

27. MAINTENANCE OF TRAFFIC..... 8

28. UTILITY POLE HOLDING / SUSPENDING..... 8

29.	DEWATERING	9
30.	DRAINAGE ALONG RIGHT OF WAY AND UTILITY EASEMENT	9
31.	RESPONSIBLE BIDDERS LIST (RBL) GC-11 LOCATE LINE VERIFICATION.....	9
32.	TRAFFIC SIGNAGE.....	9
33.	COJ COUNTY PAVEMENT MARKING REQUIREMENTS	9
34.	TEMPORARY MAILBOX REMOVAL/RELOCATION	10
35.	CRITICAL PATH METHOD (CPM) SCHEDULING, RESOURCE AND COST LOADING ...	10
36.	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND SILTATION.....	10
37.	GENERAL CONDITIONS/SPECIAL CONDITIONS	11
38.	PERMITS AND PLAN APPROVALS	11
39.	PROJECT OUTREACH MEETINGS	11
40.	PROJECT SIGNS	12
41.	CONTRACTOR EQUIPMENT IN RESIDENTIAL AREA	12
42.	NPDES PERMIT CONFORMANCE.....	12
43.	AS BUILTS	13
44.	JEA COMPANY / SUBCONTRACTOR SAFETY REQUIREMENTS	13
45.	UPDATED SCHEDULES	14
46.	COMPANY SAFETY MEETINGS	14
47.	COMMUNICATIONS	14
48.	PROTECTION OF THE ENVIRONMENT.....	14
49.	STORMWATER POLLUTION PREVENTION AND STORMWATER AND GROUND WATER DISCHARGE FROM CONSTRUCTION SITES	16

1. SCOPE OF WORK

JEA is soliciting Bids from construction contractors (hereinafter referred to as “Company or Contractor”) for construction services for **Emory Cir Water Main Replacement** Project (the “Work” or “Services”).

- A. This request is to solicit bids for construction services to install 5,400LF of 8-inch, 1,700LF of 6-inch PVC Water Main and abandon of approximately 3,100LF of 6-inch and 4-inch CI pipe along Emory Cir, Vassar Rd, Tulane Ave, Rollins Ave, and Cornell Rd
- B. The Company shall strictly follow JEA’s Water and Wastewater Standards Manual, issued January, 2018 or latest version issued in 2019, during the construction of the improvements. Contractor shall use a Request for Information in the event of a discrepancy.
- C. The following is a link to the JEA Water and Wastewater Standards:
https://www.jea.com/Engineering_and_Construction/Water_and_Wastewater_Standards/
- D. The Company shall follow and comply with COJ Land Development Code and JEA Water and Wastewater Standards
- E. The duration of work from the notice to proceed will be one hundred and eighty (180) days until substantial completion and two hundred and ten (210) days until final completion.

2. BID DRAWINGS

TITLED “112-19 Appendix A - Drawings - Construction Drawings for Emory Circle – from Cornell Rd along Rollins Ave – Tulane Ave to Emory Circle 6” & 8” watermains” prepared by CPH are attached.

3. GEOTECHNICAL REPORT

TITLED “112-19 Appendix C - Geotechnical Report”

4. ROW PERMIT

The Company shall obtain a ROW permit from COJ before starting construction activities

5. BASIS OF AWARD

The basis of award will be the lowest, responsive, and responsible Bidder submitting the Base Price for open cut, as referenced on the Bid Form.

6. BID PRICING (INCLUDED IN FRONT ENDS, BUT DOES NOT LIST EACH ITEM)

Contract lump sum price shown for the general conditions on the bid form shall be compensation to complete the work as required in the general conditions that is not paid for separately 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), and all other items listed in the general condition specifications. Payment of the lump sum price shall only be made for the percentage of work completed.

Except as provided below for expenses related to Bonds and Surveying, JEA’s payment for the General/Special Conditions line item shall be based upon the percentage of Work completed.

Bonds - Company will be permitted to invoice JEA, in its first payment application, for the costs associated with the execution and recording of the Payment and Performance Bonds. The amount paid by JEA for the Payment and Performance Bonds will be deducted from the General/Special Conditions line item total.

Surveying – Prior to construction, the Company will be permitted to invoice JEA for costs associated with the survey of the existing roadway horizontal alignment. The amount paid by JEA for these costs will be deducted from the General/Special Conditions line item total.

7. PERMITS

JEA has obtained the following permits for the project:

- JEA - Permit
- COJ - Permit

8. SURVEYING

In addition to the Surveying requirements of this solicitation, the Contractor shall be responsible for staking the project stationing, easements and/or right-of-way boundaries. The survey datum used for this project is N.A.V.D 1988.

9. CLEAR AND GRUB

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.

10. 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 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.

11. LANDSCAPING

The Company shall be responsible for protection and preservation of all trees, palms, shrubs, irrigation systems, landscaping, signs 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. All costs associated with such shall not be paid for separately but shall be included in the cost of the associated item of work.

12. RESTORATION

The drawings show limits for all restoration items based on the existing design location of the proposed main and are provided for the Contractor's convenience. If the Contractor is forced to move the main into pavement or sidewalk due to a direct conflict with a utility or tree, the JEA Representative must be notified immediately and authorize such work.

Damage to asphalt, sidewalks, or curb and gutter (not indicated for removal and replacement) will be replaced at the Contractor's expense unless otherwise authorized by JEA.

13. SOD RESTORATION

JEA will pay for sod restoration only at pre-existing sodded areas disturbed by the trench excavation (See item Trench Excavation) and for a 2FT strip of sod along the Edge of Pavement when pipe installation instructed to be along Roadways at less than 3FT horizontal distance from EOP or otherwise noted on the construction drawings. Restoration of seed and sod areas will be measured and paid under the appropriate seeding and sodding bid items

14. TRENCH EXCAVATION

Topsoil shall be stripped from the top of the trench and placed to the side for reuse during the final layer of backfill to facilitate productive growth of lawns, crops, and other vegetation, minimizing sod damage in all areas. Trenches shall be of sufficient width to provide free working space on each side of the pipe and to permit proper backfilling around the pipe, but unless specifically authorized by the ENGINEER, trenches shall in no case be excavated or permitted to become wider (as measured at the top of the pipe) than 2 feet plus the nominal diameter of the pipe. The desired width shall be the nominal diameter of the pipe plus 16 inches. The minimum allowable trench width shall be the nominal diameter of the pipe plus 6 inches. Trenching equipment that cannot maintain these minimum widths will not be allowed for use on the project.

Trench excavation shall proceed far enough ahead of pipe laying to reveal any obstructions that might necessitate changing the line or grade of the pipeline. The trench shall be reasonably straight and uniform in grade. Trenches shall be kept free of water during the construction of the pipeline and removal of water shall be at the Contractor's expense. Trench excavation shall proceed in a continuous manner from the beginning of the pipeline to the end.

Unless specifically authorized by the ENGINEER, no skipping by obstacles such as rock, road crossings, existing utilities, etc. shall be permitted. If skips are authorized by the ENGINEER and the CONTRACTOR does not close the resulting gaps in the pipeline in a timely manner, the ENGINEER may require the CONTRACTOR to discontinue all other operations until the gaps are closed.

Unless specifically directed otherwise by the ENGINEER, not more than 500 feet of trench shall be opened ahead of the pipe laying, and not more than 500 feet of open ditch shall be left behind the pipe laying. All barricades, lanterns, watchmen, and other such signs and signals as may be necessary to warn the public of the dangers in connection with open trenches, excavations, and other obstructions, shall be provided by and at the expense of the CONTRACTOR.

At the close of each working day all trenches that have been excavated shall be refilled unless exceptions are granted by the ENGINEER. All public or private drives shall be promptly backfilled or bridged at the direction of the ENGINEER.

All excavation shall be "unclassified" and therefore the cost of all excavation should be merged into the construction of the pipeline

15. WATER SERVICES:

To be bored unless indicated otherwise on drawings

16. COORDINATION OF CONSTRUCTION WITH EXISTING UTILITIES

The Company shall establish liaison with and coordinate work with JEA, BellSouth / AT&T, TECO/Peoples Gas and Comcast to prevent interference with overhead and buried electrical, telephone, and television cables. BellSouth, TECO/Peoples Gas, and Comcast may need time to relocate their facilities.

The Company shall at all times conduct its operation so as to interfere as little as possible with the existing utilities. The Company shall develop a program in cooperation with the 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 therefrom 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.

17. 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 outside the right-of-way and JEA's designated easement limits. The location will be agreed to upon and discussed at the pre-construction meeting.

18. LOCATION AND PROTECTION OF EXISTING PROPERTY - ON NON-RIGHT OF WAY ISSUES

When working in areas outside the normal City, County and/or State right-of-ways, the Company shall be responsible for location and protection of all property shown or not shown on the drawings, including maintenance and repair of any damaged utility service. Utility locates shall be provided in accordance with local and state requirements. If the drawings indicate abandonment or removal of property or utility service by the Company, the Company shall proceed after it has determined that all services have been de-energized and/or decommissioned. The Company shall coordinate with the owner of the property (Owner) and the appropriate utility company to determine status of the existing utility service prior to starting work in the area. All property and utility services that are to remain shall be appropriately protected and maintenance during the construction activity. Should there be additional cost to the Company for protection or maintenance of property or utility services not shown on the drawings, the Company shall justify and document this cost in writing to the JEA Contract Administrator. A Supplemental Work Authorization (SWA) will be negotiated and approved prior to starting work. Should property or utility services be damaged by the Company, the Company shall notify the JEA Inspector, the Owner and the utility company immediately. Should the damage interrupt service, the Company shall be responsible for restoring service as soon as possible. However, the Company shall not make repairs without approval of the Owner or the utility company and should the Owner or a particular licensed Company be required to make the repairs the Company shall be responsible for coordinating this effort as well as any cost associated with the repair. JEA reserves the right to deduct any unsettled claim amount from monthly progress payments until such time as the claim is satisfactorily resolved. This paragraph is intended to stress the importance of customer relations and the maintenance of all services to the customer.

19. PAVEMENT REPAIR (ONLY FOR OPEN CUT OPTION)

Any COJ standard pavement repair shall be completed within 10 calendar days or when 500LF of roadway is disturbed 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.

20. ROADWAY RECONSTRUCTION

The Company shall perform survey of existing roadway horizontal alignment and vertical grade of the existing limits of construction prior starting the work. 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 remove and replace impacted roadway, curb & gutter, and sidewalk portions to existing alignment, width, and grade to match existing elevations after open cut construction is performed.

21. TEMPORARY ROADWAYS

If the Company's operations render any street or private way potentially unsafe, the Company shall make such repairs or provide such temporary ways and guards necessary for the protection and safety of persons on the Work Site and the public, and for the orderly maintenance of traffic.

The Company shall always provide and maintain a hard-surfaced roadway for traffic. Where temporary detours of lanes are required, they shall be asphalt-paved by the Company. The Company may construct paving section(s) appropriate to support traffic, provided the surface is smooth and the profile reasonable, and as a minimum, consists of 1 inch of bituminous structural course over a 6-inch limerock base that was inspected and approved by the JEA Engineer. Should any temporary pavement fail, the Company shall be responsible for repairing it, at its own cost, before close of Work on the day notification is given. Should the Company be unable to make such repair by close of Work, the Company shall notify the JEA Engineer and provide an estimated time when repairs can be made. No repair timeframes shall exceed 48 hours. Any damages, either direct or indirect, resulting from such temporary pavement failures shall be the sole liability of the Company.

All limerock base material used for temporary pavement and constructed in proposed grassed areas shall be completely removed and disposed of by the Company prior to final restorative grassing operations. The area shall be backfilled with material stockpiled on the Work Location that is conducive to growth of the plant material. All costs associated with this work shall be included in the associated line item in the Bid Form Workbook.

22. PAVEMENT REMOVAL (OPEN CUT ONLY)

Saw cuts must be used on all asphalt removal.

23. COJ PAVEMENT MARKING REQUIREMENTS (OPEN CUT ONLY)

The Company shall comply with COJ pavement marking requirements.

24. SWALE AND DITCH CONSTRUCTION/REGRAIDING

The Company shall re-grade all existing swales and ditches. No separate payment shall be made for re-grading or construction of new drainage ditches as shown on the drawings, but shall be included in the Bid Document for roadway paving replacement. Payment for ditch invert will be the same as made for storm pipe

invert. Payment for sodding of ditches will be separate.

25. DUST CONTROL

The Company shall utilize a water spray truck to mitigate dusty conditions when roadways are unpaved and construction areas are not sodded.

26. PERMIT COORDINATION MEETING

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 Project Engineer and JEA Inspector.

27. CONNECTIONS TO EXISTING UTILITIES

Contractor 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.

28. MAINTENANCE OF TRAFFIC

The Company shall adhere to the maintenance of traffic plans, including construction zone signing, pavement marking, barricades, barriers, etc. as shown on the project drawings. The Company shall provide written approval from COJ to any proposed alternate MOT plan to JEA prior to starting work in area of alternate MOT plan.

Temporary closure of business entrances must be approved and coordinated with JEA. The affected business shall be given at least forty-eight (48) hours' notice prior to the closure. Any deviation from the contract documents or the requirements of the FDOT Roadway and Traffic Design Standards, such as construction zone signing, barricades, warning devices, temporary striping, flagmen, etc., must be approved by the JEA. The JEA shall be notified and approval shall be obtained forty-eight (48) hours in advance of such deviation.

Payment for all work required for maintenance of traffic, not provided for as a specific pay item, including, but not limited to, Temporary Pavement, Flagmen, off-duty police officers, lighting, etc., shall NOT be paid for separately but included in the associated line item.

29. UTILITY POLE HOLDING / SUSPENDING

Holding or suspending of utility poles including power poles and telephone poles 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. The Company must coordinate any utility pole holding/suspending with JEA. The Company shall schedule a meeting with the JEA Electrical representative in the field to discuss the anticipated work. A minimum of two (2) days' notice for the field meeting is required. The actual pole hold work will be scheduled at the field meeting.

No separate pay item will be made for this work and all costs shall be included to the associated work item unit cost as indicated in the Bid Form.

30. 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.

No additional payment shall be made for dewatering unless approved by a Supplemental Work Authorization.

31. DRAINAGE ALONG RIGHT OF WAY AND UTILITY EASEMENT

The Company shall so conduct its operations and maintain the Work in such condition that adequate drainage shall be in effect at all times. The Company shall not obstruct existing gutters, ditches and other runoff facilities.

32. 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 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 Office, 21 W. Church Street, Customer Center 1st Floor – Room 002, Jacksonville, FL 32202, (904) 665-6740, or by fax (904) 665-7294, or online at JEA.com.

33. 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, FDOT requirements and City Traffic Engineer's requirements.

34. COJ COUNTY 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 Contractor shall replace damaged/removed striping due to construction activities with like striping and/or reflectors.

- a. 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.

- b. The removal of existing pavement markings will be considered an incidental item with no additional compensation provided.
- c. All permanent pavement markings shall be extruded thermoplastic and meet current FDOT standard specifications
- d. Thermoplastic pavement markings are to be placed no sooner than thirty (30) calendar days after the completion of the final pavement layer.
- e. A bituminous reflective pavement marker (RPM) adhesive meeting current COJ and/or FDOT specifications shall be used on asphalt roadways.
- f. The contractor shall use 4" x4" CLASS –B reflective pavement markers (RPMs) installed to meet current FDOT standard specifications. Acceptable examples are: Ennis Paint co., Model 911; Ray-O-Lite, Model AA-ARCII-FH; Apex, 921AR.
- g. 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.
- h. The contractor SHALL contact the FDOT Inspector forty-eight (48) hours PRIOR to installing any pavement markings on any FDOT roadway or street or COJ Engineering Services Department (904) 530-6225.

35. TEMPORARY MAILBOX REMOVAL/RELOCATION

Contractor shall remove and temporarily relocate any mailboxes that are in conflict with construction for that working day. All mailboxes removed/relocated shall be reinstalled by the end of that workday. It is the contractor's responsibility to protect all mailboxes from damage during construction. Damage to any mailboxes during construction will be replaced at the Contractor's expense. All costs associated with temporary relocating mailboxes shall not be paid for separately but shall be incorporated in the associated line item work.

36. CRITICAL PATH METHOD (CPM) SCHEDULING, RESOURCE AND COST LOADING

Please see section 2.13.2 of the solicitation for CPM requirements.

37. PREVENTION, CONTROL AND ABATEMENT OF EROSION AND SILTATION

The Company shall take steps and make suitable provisions to minimize siltation and erosion of waterways that may result from its operation during the course of construction.

The Company shall make suitable arrangements, which may require the temporary construction of flumes, boxes, or some other device(s), at the Work Location for the drainage and disposal of water. The Company shall be responsible for protecting adjacent property to the Work Location from damage by water resulting from its operations. The Work Location shall be returned to its original condition to the satisfaction of JEA.

The Company is cautioned that execution or maintenance that creates turbidity and that directly or indirectly affects the water quality of any waterway into which storm water is discharged in such a manner as to exceed the limitations prescribed in the Florida Administrative Code, is a violation of the water quality standards of the State of Florida.

Turbidity shall not exceed 29 NTU's, above background level within 100' of the construction activity. Costs incurred by the Company for compliance to the restrictions outlined above shall be included in the cost of the items for which the turbidity control is required, unless a separate line item is included in the Bid Document for turbidity control. Silt barriers shall be used at all waterway crossings or at any time during

construction that siltation or erosion may occur. The Company shall submit to the JEA Engineer, for written approval prior to construction, the method to be used to control the turbidity. The JEA Engineer's approval of the method to be used in no way relieves the Company of the liability in case of a citation against JEA.

38. GENERAL CONDITIONS/SPECIAL CONDITIONS

The line item shown on the Bid Form titled "General/Special Conditions Lump Sum Price" shall be used for general and special expenses, which do not appear as separate line items on the Bid Form, including, but not limited to, costs and expenses related to the following:

- The execution and recording of the Payment and Performance Bonds
- Safety requirements
- Quality Control
- Preparation of daily reports
- Maintenance of traffic
- Attendance of meetings, project scheduling
- Testing (if not included elsewhere)

Except as provided below for expenses related to Bonds and Surveying, JEA's payment for the General/Special Conditions line item shall be based upon the percentage of Work completed.

Bonds - Company will be permitted to invoice JEA, in its first payment application, for the costs associated with the execution and recording of the Payment and Performance Bonds. The amount paid by JEA for the Payment and Performance Bonds will be deducted from the General/Special Conditions line item total.

Surveying – Prior to construction, the Company will be permitted to invoice JEA for costs associated with the survey of the existing roadway horizontal alignment. The amount paid by JEA for these costs will be deducted from the General/Special Conditions line item total.

SWA - In the event that JEA authorizes changes to the Work under a Supplemental Work Authorization (SWA), the amount of the Bid Form line item for SWA Allowance will not be increased unless the total value of all SWA Work exceeds the original SWA Allowance provided on the Bid Form.

39. PERMITS AND PLAN APPROVALS

The Contractor must obtain a 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.

Contractor shall comply with all requirements and conditions of the JEA Permit for Construction of the pipeline.

Contractor is responsible for obtaining COJ Right-of-Way (ROW) Permit prior to construction with COJ

40. PROJECT OUTREACH MEETINGS

The Company's project manager, superintendent and customer satisfaction representative for this Work shall be required to attend JEA project outreach meetings including potential "Town Meetings" scheduled through JEA Project Outreach or COJ.

41. PROJECT SIGNS

Contractor to remove project signs after construction completion

42. CONTRACTOR EQUIPMENT IN RESIDENTIAL AREA

It is the design intent to place the proposed pipeline out of the pavement in the grassed area between edge of pavement and right-of-way line. The Contractor is responsible for protecting sidewalks, curb, gutter, and asphalt by placing plywood or other applicable procedures for the machinery to operate.

All heavy equipment (excavator, front-end loaders, directional drilling rigs, etc.) shall be sized for a residential setting. Excavators shall be rubber tired unless approved by JEA representative. The bucket on the excavator shall be no greater than 30 inches wide to minimize the risk of disturbing surrounding utilities, sidewalks, curb and gutters, etc.

43. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT CONFORMANCE

The Company shall comply with the State of Florida Department of Environmental Protection (FDEP) Document No. 62-621-300(4) (a). A copy may be downloaded via internet at http://www.dep.state.fl.us/water/stormwater/npdes/permits_forms.htm and is attached to this section.

The NPDES permit program requires that if the construction activities disturb an acre or greater of land, then the Company must submit the Notice of Intent (NOI) to use the Generic Permit for Stormwater Discharge from Large and Small Construction Activities, FDEP Form No. 62-621.300(4)(b). By applying for the Generic Permit, the Company is certifying that it will develop and implement a Stormwater Pollution Prevention Plan (SWPPP) specifically designed for each construction site. Also involved are certain certifications, notifications, inspections and record keeping activities. The SWPPP and the weekly inspection reports are required to be kept at the project site and available for review upon request.

The SWPPP must be prepared and certified by the Company prior to commencement of construction. The NOI will be initiated by the Company (DEP Document No. 62-621.300(4)(b)) and forwarded to the FDEP and related fee with courtesy copy to JEA (attention: Environmental Services, 21 W. Church Street, Tower 8).

The Company shall also comply with the City of Jacksonville Ordinance 98-994-E. A SWPPP plan that meets the minimum erosion and sedimentation control measures required by the City of Jacksonville may be included in the Construction Drawings. However, the Company is responsible for providing a SWPPP that will adhere to the requirements delineated in DEP Document No. 62-621.300(4)(a). This may require amendment or provision of additional information and controls to the SWPPP included in the Drawings. No separate payment shall be made for a SWPPP and its implementation, but all associated costs shall be included in the associated item of work in the Bid Form.

The Company shall obtain all other applicable local, state, and federal permits. It is unlawful to have any discharges that are not composed entirely of Stormwater (except discharges pursuant to a NPDES permit) to the Municipal Separate Stormwater System (MS4). Only non-contaminated water/non-turbid water shall be transported through the MS4. Groundwater discharge (approved by the Florida Department of Environmental

Protection pursuant to 62-621.300(2)) from dewatering activities may be routed into the Stormwater system, drainage ditch, creek, river or wetland providing that erosion, and transportation of suspended solids to the system is prevented. If unanticipated contaminated soil or contaminated groundwater is encountered, the dewatering activity shall cease immediately, and the Company shall contact the JEA Engineer and FDEP at (904) 807-3300

The Company must complete Notice of Termination (NOT) (DEP Doc. No. 62-621.300(6), F.A.C.) within one (1) week of final site stabilization with courtesy copy to JEA (attention: Environmental Services, 21 W. Church Street, Tower 8). The Company shall also provide copies of NOT to JEA Engineer with final payment and construction closeout documents.

JEA will reject any and all invoices and Application for Payments unless JEA receives a copy of the Company's NOI and NOT that were forwarded to the FDEP. In addition, if the above requirements are not followed, the Company shall be held liable for any fines and/or violations incurred by JEA.

44. 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 Project 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.

As-Builts shall be provided to JEA once construction substantially completed. Completion of the project will only be accepted once As-Builts have been accepted by JEA GIS requirements.

Limits of flowable fill should be indicated in final as-builts

45. JEA COMPANY / SUBCONTRACTOR SAFETY REQUIREMENTS

Bidder shall be approved as JEA Safety Qualified within ten (10) business days of receiving written notice from the JEA Bid Office that it is the lowest responsive and responsible Bidder. If the Bidder fails to obtain JEA approval as a JEA Safety Qualified company by 4:00 PM Eastern time on the 10th business day, JEA will reject the company's Bid, and proceed to Award to the next lowest responsive and responsible Bidder.

JEA Safety Qualification information is available online at jea.com. Please note that it may take up to five (5) business days for a company to be approved as JEA Safety Qualified. It is the Bidder's responsibility to ensure it is JEA Safety Qualified. A list of the JEA's Safety Qualified vendors can be found on jea.com.

For additional information, contact Jerry Fulop, JEA, T-3 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 two (2) categories of training mandated. 1) Orientation and 2) Supervisor.

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 or the National Center for Construction Education and Research (NCCER) 8 hour Orientation. Cards must be provided for proof. 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.

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.

46. UPDATED SCHEDULES

Schedules shall be provided to JEA every two weeks

47. COMPANY SAFETY MEETINGS

Copy of weekly companies' safety meeting record to be provided to JEA every week

48. COMMUNICATIONS

Company should be working in cooperation with JEA inspector and any JEA representative
JEA's representative should be able to ask questions about the work being performed to any Companies' representative on site

49. PROTECTION OF THE ENVIRONMENT

The Company and its Subcontractors shall comply with all applicable laws, rules and regulations including, but not limited to, all Environmental Regulations.

A. Asbestos, Lead, or Toxic Mold Notification:

Asbestos, Lead, or Toxic Mold may be present at the Work Location. The Company shall notify the Contract Administrator immediately upon discovery of asbestos, lead, toxic mold. The Company shall not disturb or remove known or discovered asbestos, lead, or toxic mold unless directed by the JEA Representative.

B. Hazardous Materials:

The Company shall bear full responsibility including, but not limited to, payment and liability for the transportation, use, recycling, and disposal of any Hazardous Materials under the Company's control during the performance of the Work. Disposal or recycling of Hazardous Materials shall only be performed at JEA approved facilities. The Company shall provide JEA with appropriate documentation showing proper disposal or recycling of its Hazardous Materials.

The Company shall notify the Contract Administrator in writing of the type, quantity and disposal or recycling method of any hazardous material used during the performance of the Work. The Company shall be solely responsible for the use and disposal or recycling of any such materials. The Company shall submit cleanup procedures to the JEA Representative for review and written approval prior to the use of the hazardous material. In the event that a hazardous material escapes into the environment, the Company shall immediately notify the Contract Administrator in writing of the occurrence and the actions taken. In the event that the Company encounters hazardous materials in the course of construction, the Company shall immediately notify the Contract Administrator verbally, with a written notification to follow. The Contract Administrator shall arrange for disposal by JEA.

JEA has identified and labeled equipment known to contain PCBs. JEA will remove and transport any equipment so identified. The Company shall not remove or transport any equipment containing PCBs. The Company shall immediately notify the JEA Representative of any questionable or unmarked equipment, and the JEA Representative will arrange for testing and identification.

C. Waste Management:

The Company will be solely responsible for the proper management of all waste material, including but not limited to, paints, lubricants, fuels, solvents, drilling mud and materials, construction and demolition debris, used oil and oily waste, land clearing debris, universal waste (mercury containing lamps and devices, batteries, etc.) and other chemicals and hazardous materials used in connection with or generated during the Work, except as specified above. The Company will provide proper containers for waste materials and comply with all applicable laws, rules and regulations in their disposal or recycling. The Company will dispose of or recycle all empty containers off-site as soon as possible.

D. Wetlands:

The Company understands and agrees that the Work Location may include wetlands or other environmentally sensitive areas. The Company shall not enter these areas during the performance of its Work, unless specifically authorized by the Contract Administrator and appropriate state and federal permits have been obtained.

E. Wildlife:

The Company and/or Subcontractor's employees shall not endanger, harass, or interfere with any wildlife species or domestic animals of any kind.

F. Violation of Environmental Laws and Permits:

The Company shall immediately cease any activity that causes or results in a violation of JEA's or Company's environmental permits or federal, state and local laws and regulations. Such violation shall immediately be reported to the Contract Administrator verbally, with written notification to follow. All

additional costs due to the Company's noncompliance with the applicable environmental permits or Environmental Regulations shall be paid by the Company.

50. STORMWATER POLLUTION PREVENTION AND STORMWATER AND GROUND WATER DISCHARGE FROM CONSTRUCTION SITES

The Company shall Submit a Notice of Intend (NOI) to FDEP prior commencing construction activities and dewatering, develop a Stormwater Pollution Prevention Plan (SWPPP) compliant with local, state, and federal rules, laws, and ordinances. Company shall be responsible for implementing the SWPPP, installing and maintaining in a functional manner performance based structural and nonstructural best management practices (BMPs) as described therein, evaluating the effectiveness of the best management practices, and employing additional performance based best management practices as may be deemed necessary by JEA. The Company, at its own expense, shall revise, or include as addendum to the SWPPP measures as maybe required by a local, state, or federal authority to remain compliant with local, state, and federal rules, laws, and ordinances.

No additional payments shall be made to Company for revisions or addendums to the SWPPP, or for the actual implementation of those revisions on the Work site, including those made so as to achieve functional performance based best management practices.

The Company shall obtain all other applicable local, state, and federal permits subsequent to notification of JEA of the need for such authorization(s). It is unlawful to have any discharges that are not composed entirely of Stormwater (except discharges pursuant to a NPDES permit) to the Municipal Separate Stormwater System (MS4). Only non-contaminated water/non-turbid water shall be transported through the MS4. Groundwater discharge (approved by the FDEP pursuant to 62-621.300(2)) from dewatering activities may be routed into the Stormwater system, drainage ditch, creek, river or wetland providing that erosion, and transportation of suspended solids to the system is prevented. If contaminated soil or contaminated groundwater is encountered, the dewatering activity shall cease immediately, and the Company shall contact JEA's Environmental Coordinator, Andrew Sears, at (904) 665-7719.

All contractors conducting land disturbing activities shall have at least one corporate representative that is certified for the Florida Department of Environmental Protection Erosion and Sediment Control Inspector Training Manual.

For projects with greater than one acre of disturbed land, a person certified pursuant to the Florida Department of Environmental Protection's Erosion and Sediment Control Inspector Training Manual or trained by a certified person, shall make the routine inspections of work site BMPs at least once every 7 days or within 24 hours after every 0.5 inch rainfall. Written inspection reports shall be made, kept on the construction site, and made available for inspection during land-disturbing activities. If the inspector is trained by a certified person but not certified themselves, accurate training records must be kept and evidence of annual refresher training shall be maintained.

Any required erosion and sediment control plans submitted to the City of Jacksonville must conform to the requirements in the FDEP's Florida Department of Environmental Protection's Erosion and Sediment Control Inspector Training Manual and the provisions contained in the City of Jacksonville Land Development Procedures Manual. Upon approval to proceed to do so by the Owner, the Company shall complete a *Notice of Termination (NOT)* (DEP Doc. No. 62-621.300(6), F.A.C.), to terminate the Construction General Permit (CGP) coverage within one (1) week of final site stabilization.

The Company shall be held liable for any fines and/or violations incurred by JEA.