

EVENT NO. 4935 CASEY PHASE II-A DRAINAGE IMPROVEMENTS

SECTION II SCOPE OF WORK

2.0 Broad description of Project

The City of Savannah Casey South drainage basin, one of the largest drainage basins, is roughly bounded by Victory Drive to the North, Skidaway Road to the East, Montgomery Crossroads to the South and Bull Street to the West. Many of the drainage challenges are located in the upper half of this basin, North of DeRenne Avenue. In addition to drainage, the Casey basin has water quality challenges. Two (2) segments of the canal are listed on the Georgia Environmental Protection Divisions 319(h) for impairment due to fecal coliform and low dissolved oxygen. In 2007, the City completed the first phase of drainage improvement projects in this basin consisting of multiple pipe and culvert upgrades, dramatically increasing capacity in trunk lines. In 2010 and 2012, the City completed watershed protection plans for the Vernon River with focus on water quality improvements in the Casey Canal and Hayner's Creek.

Phase II-A of the Casey drainage improvement project's goal is to design the stormwater drainage system upgrades to accommodate a 100-year storm flood relief in the area roughly bound by 55th Street to the North, Harmon Dive to the East, 63rd Street to the South, and Abercorn Street to the West. The triple eight foot (8') by eight foot (8') box culvert installed in Phase I was designed and sized to facilitate outfall to the Casey Canal for this phase; however, additional outfalls should be considered and may be required for future phases.

The proposed Phase II-A project area will require conveyance of stormwater drainage as far west as Abercorn Street and east to Harmon Street, and include elements that treat or protect water quality. An analysis of grey versus green infrastructure to include life cycle costs is desired for future conceptual planning. Future phases may consider sustainable practices for managing stormwater in combination with/or in lieu of a new outfall and conduit route to the Casey Canal. The City of Savannah coordinated with a local design firm to establish the most feasible route for the trunk lines. The proposed route for the trunk lines in this phase included the following: beginning at 63rd and Abercorn Streets, 1,470 linear feet of two (2) 60 inch RCP pipes extending north along Abercorn Street to Columbus Drive; turning east along Columbus Drive with 700 linear feet of two (2) 72 inch RCP to Habersham Street. At this junction there is a another proposed trunk line approaching from the south along Habersham Street and consisting of 730 linear feet of 48 inch RCP from the intersection of Habersham and 62nd streets north along Habersham Street to 60th Street and from 60th Street 360 linear feet of 60 inch RCP north along Habersham Street to junction at Columbus Drive and Habersham Street. From the junction, continuing east, 1,930 linear feet of two (2) 84 inch RCP along Columbus Drive to Atlantic Drive. Turning north along Atlantic Drive with 1,050 linear feet of 72 inch RCP to the intersection of 56th Street and Atlantic Avenue. Turning east along 56th Street with 1,350 linear feet of two (2)

72 inch RCP into the existing 'triple' eight foot (8') by eight foot (8') box culvert located at 56th and Harmon Streets. Design of the conduit route and installation must consider a number of challenging factors including, but not necessarily limited to, poor soil conditions, depth of excavation, historical trees, water quality, distance between excavation and existing structures, and vibratory impact of construction on adjacent structures.

Due to the size of conduit, depth of excavation, and the close proximity of existing structures, the design must include a detailed geotechnical investigation and construction plan addressing seismic monitoring, shoring plan (if necessary), dewatering, subsidence, construction monitoring, and pre and post surveys of existing structures in proximity of excavation to prevent damages to adjacent existing structures, and provide monitoring for any potential damages to these structures due to construction activities.

The successful design firm must be able to demonstrate the ability to integrate new and existing grey infrastructure with multiple elements that benefit the community. In addition, the ability to supplement the City's limited resources with other funding sources (e.g. grants) will be advantageous. The selected firm will be required to organize meetings with the neighborhood to collect public input and support for the plans.

2.1 Detailed Scope of Services

2.1.1 General

The selected design consultant shall:

- A. Prepare and submit preliminary and final construction plans (30%, 60%, 100% & Final) and specifications for the construction of stormwater improvements required to meet the 100-year storm flood relief applying elements that protect water quality and provide multiple benefits to the community. Plans shall include existing site conditions, utilities in plan and profile, demolition and excavation, staging areas, tie-ins to existing and future stormwater conduit, tree protection, soil and erosion control, and all necessary calculations for excavation, shoring, and conduit installation. Specifications shall be complete and include pipe and pipe material testing, requirements, and best management practices for noise and dust control, seismic monitoring, subsidence, dewatering plan, and shoring or trenching methods.
- B. Prepare and submit construction cost estimates and proposed construction schedules.
- C. Design professional services shall be in accordance with the requirements of this RFP. All drawings, calculations, specifications, and other technical work product shall be signed and sealed by a professional engineer registered in the State of Georgia.
- D. Design deliverables shall be prepared in sufficient detail for permitting and construction of the project. All design work products shall be in compliance

with federal, state, and local requirements as well as industry standard requirements.

- E. Conduct design reviews with the City at regular intervals during preparation of the design to ensure that the design meets the City's requirements for the report (pre and post), 30%, 60%, and 100% submittals. Reviews shall be scheduled and conducted by the consultant in sufficient time and with sufficient frequency to expedite the City's review of the final deliverables and avoid adverse impact to the overall permitting and work schedule. The consultant shall prepare accompanying meeting minutes for City review and approval.
- F. Include and coordinate surveying activities to establish pertinent topographic features, confirm invert elevations, determine locations of existing right-of-ways, easements, utilities, roadways, structures, or other features that may impact facility design and construction methods.
- G. Include sub-surface utility investigation (level C and D) and mapping of existing utilities that may impact stormwater conduit installation and maintenance.
- H. Include and coordinate all geotechnical activities necessary for the design and suitability of the route for the proposed stormwater conduit.
- I. Prepare tree protection plans that ensure the viability of the trees during and after construction.
- J. Prepare site plans for regrading all areas affected by clearing activities. Include all necessary erosion and sedimentation control documents.
- K. Stormwater MS-4 requirements must be addressed as part of the design which primarily focuses on water quality elements. Include practices which reduce nutrient and fecal coliform pollution.
- L. Prepare plans for integration of sustainable stormwater management with community enhancements. Review permitting requirements, determine applicable permits, and prepare and submit all necessary permit applications. The City of Savannah shall pay permit fees.
- 2.1.2 Preliminary Engineering
 - A. Stormwater Concept Design Report

The City of Savannah Stormwater Department capital improvement staff has examined the project corridor. Based on preliminary findings, a conceptual layout of the proposed stormwater routes has been prepared. The preliminary plan must take into account significant trees, proximity to adjacent structures, water quality protection, depth of construction, and soil types.

To develop the Concept Design Report, the selected consultant shall:

- 1. Evaluate and determine stormwater conduit routes and/or alternate routes based on proximity of adjacent structures, significant trees, depth of construction, project constructability, and cost.
- 2. Concept design and report must incorporate sustainable and integrated stormwater management. Include analysis of alternatives the City may consider to increase the cost benefit ratio of this project which include life cycle costs.
- 3. Gather and review existing available geotechnical data for the project corridor to determine impact of possible geologic conditions on project design.
- 4. Conduct the initial phases of the subsurface utility evaluation (Level D database search and Level C visual inventory), staging, and layout areas. The consultant shall perform this in addition to any other reconnaissance necessary to confirm concept feasibility and provide an estimate of cost, (e.g. preliminary survey).
- 5. Consult with the City prior to preparing the Concept Design Report to discuss the work to date and any proposed modifications to the conceptual layout.
- 6. Review project requirements and confer with contractors and City staff to identify ways in which the City may be able to reduce project cost, e.g. estimate installation and shoring options and propose local disposal/reuse options, discussion of favorable work schedules, and alternative project bidding options.
- 7. Method of Construction is a key component of this project. The design firm shall incorporate construction methods that minimize vibration, protect trees, and avoid any resultant damage to adjacent structures and trees.
- 8. Prepare a Concept Design Report that shall include the following:
 - Graphic and narrative descriptions of the proposed stormwater conduit route, staging and layout areas.
 - Graphic and narrative description of alternatives using sustainable and integrated stormwater management.
 - Results of the initial subsurface utility investigation.

- Results of the initial geo-technical data review.
- Discussion of options for the City to reduce project cost including outside supplemental sources of funding (i.e. grants, private investment opportunities)
- A recommendation for the proposed revised concept.
- Concept level Engineer's Estimate of Probable Cost for the proposed project (expected range of accuracy for estimates shall be ± 30%).
- 9. The consultant shall schedule a progress meeting to meet with the City and present the Concept Design Report.
- B. Site Survey and Topographic Survey
 - 1. Provide all necessary survey data to design the proposed drainage improvements, including but not limited to:
 - Right-of-way boundaries, easements, property corners, building corners, lot lines, and a copy of the recorded plats for staging areas and proposed route.
 - Topographic data for the proposed conduit route within the public right of way and fifty (50) feet from the proposed stormwater conduit centerline.
 - Topographic data within proposed construction and equipment staging areas.
 - For areas where the proposed stormwater conduit will be at depths where interferences may exist, verify both horizontal and vertical position of existing equipment, structures, pipes, and appurtenances above and below ground.
 - Locate trees and indicate size and species.
 - Locate all permanent benchmarks and geotechnical boring locations.
 - 2. The consultant shall be responsible for establishing reference benchmarks, including temporary benchmarks, and base line identified on the construction drawings, along with marking and locating all easements and right-of-ways (ROWs) for construction and in the construction area. This shall be coordinated and scheduled with the Contractor, who shall protect the benchmarks

(including temporary) and field placement of the marked and located easement and ROW lines.

3. The survey shall utilize a coordinate system based on the Georgia State Plane Coordinate System, East Zone, North American Datum of 1983 (NAD 83). Elevations shown shall be based on the North American Vertical Datum of 1988 (NAVD 88). All measurements and coordinates shown shall use the U.S. Survey Foot definition.

C. Subsurface Utility Engineering

- The consultant shall provide horizontal and vertical field identification and verification, including mapping, of all underground utilities that may be in the vicinity or in conflict with the proposed stormwater conduit installation. Subsurface Utility Engineering (SUE) services shall be required per ASCE Standard 38-02 "Standard Guideline for the Collection and Depiction of Existing Subsurface Data," and such specialized service companies may be contracted.
- The horizontal limit of the utility locates shall be at least twenty-five feet on-center of the proposed paths and the vertical data shall be included. The minimum level of information to be used for this project includes:
- Quality Level D is the most basic level of information obtained and requires a search of all reasonably accessible databases. Databases may include some or all of the following: Utility companies; public works departments; and facility owners.
- Quality Level C information requires a visual inventory and survey of the above ground infrastructure associated with utilities such as manholes, valve boxes, hand holes, transformers, etc.,
- D. Geotechnical Investigation and Report

The geotechnical investigation shall be performed to produce basic data for designers and contractors to evaluate the appropriate infrastructure design and constructability, methods and potential issues for proposed stormwater conduit installation and integrated management. These issues may include poor soils, de-watering, subsidence, shoring methods, vibratory impacts to adjacent structures, possibility of running sands or collapsible soils, obstructions, and hard material.

The bidder's geotechnical project approach <u>must</u> include a discussion of the geotechnical engineer's experience, capabilities, and program to provide sound recommendations to the design engineer and sufficient data to the contractor for competitive bidding without performing unnecessary excavation and/or shoring. At minimum, the geotechnical investigation shall include a series of soil test borings along the proposed alignment of the stormwater conduit and other key locations in the drainage focus area. The geotechnical engineer shall search previous borings in the vicinity of the alignment area for general soil stratigraphy to be expected. The number of borings shall be appropriate to delineate the variation of soil profile along the alignment. As certain areas within the project boundary are expected to be weaker and more variable than the remainder soil types and workability must be considered for conduit alignment.

Laboratory testing shall be performed on selected representative samples to determine the soil composition and confirm visual classification. For each soil stratum, the tests shall include natural moisture content, grain size distribution and Atterberg limits for cohesive soils. The total number of samples tested shall not be less than 25% of the total split barrel samples taken from the soil test borings.

A geotechnical report shall be provided and describe the general geology of the site, site conditions, and findings of soil test borings and laboratory testing. The geotechnical report shall also evaluate soil conditions relative to soil type, depth of excavation, dewatering, shoring and/or other apparent issues that should be expected for the method of construction.

The shoring design and installation methods shall be based on soil boring results and geotechnical analysis. Engineering reports and/or plans shall address trench excavation depth, shoring method(s), subsidence prevention, vibratory impacts, and de-watering techniques to prevent damages to adjacent private property and structures.

- E. Permitting Services (Identification)
 - 1. The consultant will be responsible for determining required encroachment permits and approvals needed from existing entities (e.g. Georgia Power, Atlanta Gas Light, etc.), Chatham County, Georgia Department of Transportation, and railroads as necessary.
 - 2. Identification and preparation of all permits/applications to satisfy local, county, state, and federal requirements for the construction of the project shall also be performed.
 - 3. Project shall be subject to City of Savannah Site Plan Review (SPR) process to secure land disturbing activity permits. The consultant should expect three required series of submittals to the SPR group during the process. Electronic plan review is available. For scheduling purposes, there is an expected two week turnaround period to receive comments upon your consultant submittals.

- 4. The consultant shall prepare a list of the types of permits considered and indicate the permits required. Concurrence with this list by the City does not relieve the consultant's responsibility to identify and prepare approvable submittals for all required permits.
- F. Preliminary (30%) Plan Submittal
 - 1. The consultant shall prepare and submit preliminary plans (30% complete), which shall include:
 - General plan sheets including Cover Sheet, General Notes and Legends, Key Map
 - Preliminary civil site plans including existing conditions, demolition, and pipe and equipment staging areas showing proposed work area limits
 - Preliminary design construction plans, including plan and profile views, (final profiles, when complete, shall show proposed pipe depths, vertical & horizontal clearances, utility conflicts, utility relocations, manhole locations, staking information and boring locations along the stormwater conduit route)
 - Community enhancement plans
 - 2. Details for alternative approaches that apply sustainable and integrated stormwater management practices. The consultant shall also prepare and submit the following items along with the preliminary plan submittal:
 - Stormwater route Analysis Provide a copy of the necessary calculations for conduit installation, (utility relocations, seismic impact due to installation, etc.)
 - Geotechnical Report
 - Engineer's Estimate of Probable Construction Cost, (expected range of accuracy for estimate shall be ± 20%)
 - Draft Specification Table of Contents
 - Cost benefits analysis of alternatives applying sustainable and integrated stormwater management for the focus area
 - 3. The consultant shall submit two (2) paper copies and one (1) electronic copy of the submittals (full-size 24" x 36" plan sheets).

After a two (2) week review period, the consultant shall hold a workshop with City staff to present the plans and review the preliminary design.

2.1.3 Final Design

After the preliminary plans and accompanying reports have been reviewed and approved by the City, the final design phase shall begin. The final design phase requires the consultant to make drawing and specification submittals at the 60% and 100% complete stages of project design.

A. Plat Preparation

The consultant shall prepare up to five (5) recordable plats covering properties in which public easements or rights-of-way must be acquired by the City for the project. Plats shall be prepared in duplicate as follows: one (1) set of plats shall contain PIN numbers and the names of property owners based on current county property tax records, and one set shall omit PIN numbers and the names of property owners. Legal research, if required, shall be the responsibility of the consultant. These documents shall be submitted after the completion and review by the City of preliminary plans. All plats shall be stamped with a seal and signed by a Land Surveyor registered in the State of Georgia.

B. 60% Construction Plans Submittal

- 1. The consultant shall submit new and revised drawings to the City for review at the 60% design completion stage. The 60% submittal shall include the following drawings:
 - General plan sheets including revised Cover Sheet, General Notes and Legends, Key Map and preliminary Drawing Index and Vicinity Map
 - Revised civil site plans (existing conditions, demolition, and staging), and preliminary plans, notes, and details for erosion and sedimentation control, site restoration, and civil construction, including locations and details for proposed pedestrian and vehicular traffic and noise barriers at staging areas
 - Revised stormwater conduit construction plans (plan and profile)
 - Preliminary geotechnical data, boring logs, design recommendation for ground improvements / foundation / shoring / vibratory constraints / subsidence prevention techniques and de-watering requirements and methods.

- Stormwater MS-4 requirements must be addressed as part of the design by implementing a combination of approaches collectively known as sustainable and integrated stormwater management. Incorporation of BMP's, Low Impact Development and Green Infrastructure must be considered and implemented into the design which shall consider the entire drainage focus area.
- Community enhancement plan, incorporating City review comments provided during the conceptual and 30% plan submittal review
- 2. The consultant shall also prepare and submit the following items along with the 60% construction plan submittal:
 - Draft Specifications for all project components, including specialty materials, materials testing, dewatering, shoring or trenching construction methods, and best management practices for environmental protection (noise, dust, water quality and seismic abatement). Includes Supplemental General Conditions and Measurement and Payment sections
 - Updated (60%) Engineer's Estimate of Probable Construction Cost, (expected range of accuracy for estimate shall be ± 15%)
 - Draft Construction Schedule
- 3. The consultant shall submit three (3) full-size paper copies and one (1) electronic copy of the submittals). After a two (2) week review period, the consultant shall hold a workshop with City staff to review the 60% plan submittal.
- 4. The consultant shall then meet with the City Site Plan Review (SPR) team to present 60% drawings and discuss project in advance of plan submittal for issuance of land disturbing activity permits. A single set of full-size paper plans shall be submitted to the SPR team at this time. The consultant shall address comments generated by the SPR team in the 100% plan submittal.
- C. 100% Construction Plans Submittal
 - 1. The consultant shall submit revised drawings to the City for review at the 100% design completion stage. The drawings and specifications submitted at this stage shall be 100% or nearly 100% complete. The 100% submittal shall include the following drawings:
 - Final general plan sheets

- Final civil site plans, notes, and details
- Final stormwater conduit construction plans, (plan & profile)
- Final geotechnical data and recommendations
- Final Landscaping Plan and community enhancement features
- Stormwater MS-4 requirements must be addressed as part of the design by implementing a combination of approaches collectively known as sustainable and integrated stormwater management which must include applications in the drainage focus area.
- 2. The consultant shall also prepare and submit the following items along with the 100% construction plan submittal:
 - Final Specifications, including Standard Contract Documents and Special Inspections
 - Final (100%) Engineers Estimate of Probable Construction Cost (expected range of accuracy for estimate shall be ± 10%)
 - Final Construction Schedule
 - List of all required special inspections, a budget estimate for completing special inspections, and a list of firms that can provide these services for the project.
- The consultant shall submit three (3) full-size paper copies and one (1) electronic copy of the submittals, (for City staff review). After a two (2) week review period, the consultant shall hold a workshop with City staff to review the 100% plan submittal.
- D. Permitting Services (Submittals)
 - 1. The consultant shall prepare exhibits and submit applications to obtain any and all necessary permits and/or encroachments. These may include but are not limited to USACoE, DNR, MS4 or other federal, state, or local permits. The consultant shall perform surveys and prepare documents necessary for permit approvals in accordance with the standards and regulations of the appropriate entity.
 - 2. The consultant shall prepare all permit applications, documentation, and supporting attachments needed to secure necessary project

approvals. These documents, with supporting attachments, shall be prepared by the consultant prior to the completion of final plans and forwarded to the City for execution. Copies of these documents shall be bound with the contract documents, and appropriate information shall be shown on final plans.

- 3. Modifications to the prepared permitting documents as requested by the review entity shall be addressed by the consultant and new submittals, if necessary, provided.
- E. Final Revisions
 - 1. The consultant shall address any final comments on the drawings and specifications from City staff and/or other review agencies. The consultant shall document and submit to the City a summary of the final revisions made.
 - 2. The final plans, specifications, and list of required special inspections shall be submitted to the City of Savannah Development Services, [eight (8) full-size paper copies and one (1) electronic copy on CD].

2.1.4 Bidding Services

After the final design documents have been reviewed and approved by the City, with appropriate agency approvals and easements obtained, bidding services shall be provided in accordance with Section II, including but not limited to the following:

- Preparation of Plans and Specifications for Bidding
 Prior to advertising for bids, the consultant shall coordinate with the City to make ready the project specifications and provide plans for bidding. The requirements include:
 - 1. Completion of the City's Request for Contract form, (asks for recommendations on the value of liquidated damages, duration of construction, adverse weather days, etc.)
 - 2. Prepare the project bid form, which shall be consistent with the Measurement and Payment specification and include any necessary instructions to complete the form
 - 3. Prepare Section 01600, Supplemental General Conditions, as necessary to conform to special conditions pertaining to the project that are different from Section 01500, General Conditions
 - 4. Assist City staff in the preparation of the invitation to bid
 - 5. Transmission of three (3) complete sets of approved plans to the City of Savannah marked "APPROVED FOR BIDDING"

- B. Project Bidding Assistance
 - 1. Responding to comments/questions from involved parties via compilation, submission of addenda and present/review project requirements
 - 2. Attending Pre-Bid Conference and Pre-Construction Meetings
 - 3. Preparation and distribution of pre-bid meeting minutes
 - 4. Review of Bid Proposal Documentation and Preparation of Bid Tabulation
 - 5. Evaluation and recommendation of Contractor
 - 6. Issue a notice to proceed to the contractor
- 2.1.5 Construction Phase Services

After the bid phase has been completed and an acceptable bid has been awarded by the City of Savannah, construction services shall be provided in accordance with Section II including, but not limited to, the following:

- A. Contract Administration
 - 1. Pre-Construction Conference
 - Attend Pre-Construction Conference and present/review project requirements
 - Preparation and distribution of pre-construction meeting minutes
 - Provide six (6) full-size (24" x 36"), four (4) half-size (11" x 17") sets of plans, and one (1) electronic copy (.pdf and .Cad files in 2007 AutoCAD format) marked "APPROVED FOR CONSTRUCTION"
 - 2. Conducting monthly Project Meetings
 - 3. Reviewing and responding to Contractor Requests for Information
 - 4. Reviewing and tracking shop drawing submittals and submittal revisions
 - 5. Provide design qualifications for submittals

- 6. Evaluation of substitutes
- 7. Interpretation and clarification of the Contract Documents
- 8. Evaluating and processing proposed Change Orders
- 9. Evaluating Contractor's Pay Requests
- 10. Copies of time sheets for all A/E personnel providing construction phase services, including a brief narrative of the work performed (to accompany A/E consultant requests for payment)
- 11. Conduct Final Inspection in coordination with City Staff
- 12. Preparing and distributing minutes of all meetings
- B. Resident Inspection
 - 1. Provide resident project inspector during project construction. Actual required weekly hours of inspection time for construction to be determined based on design.
 - 2. Copies of time sheets for all personnel that worked on this project
 - 3. Copies of weekly inspection field logs
 - 4. Brief narratives on the work performed by the personnel invoiced on project
 - 5. Documentation for defective work, stored materials, and materials quantities
 - 6. Inspection of shipped materials for condition and compliance with approved shop drawings
 - 7. Oversight of inspections and testing
 - 8. Review of applications for payment based on submitted data and schedules
 - 9. Monthly review and submittal of Contractor's record drawings
 - 10. Daily documentation of lost time / wet weather days
 - 11. Compilation and submission for Certificate of Substantial Completion
 - 12. Provide construction observation and monitoring to ascertain that

the work is in substantial conformance with the contract documents and with the design intent

- 13. Compilation and submission of Final Inspection Project Punch List
- 14. While contractor is responsible for various monitoring throughout construction, the consultant shall provide a qualified geotechnical representative present to provide oversight and assistance with ensuring accurate data is taken through equipment calibration, setup, maintenance, and data acquisition. The successful proposer will be tasked with acquiring the monitoring data from installed field equipment and/or the contractor, analysis of acquired data, and reporting interpreted results to the City Project Manager. Interpreted (reduced) instrumentation data shall be reported to the City Project Manager within 24 hours during all times of deep excavation construction activities which require monitoring and data interpretation in order to prevent adjacent structural damage.
- 15. Prior to construction, the contractor is required to provide Pre-Construction Property Condition Surveys of structures within 300' of the construction work area. The successful proposer shall provide oversight and quality control of the contractor led property condition surveys. It will be the proposer's responsibility to assist with these property condition surveys enough to ensure the contractor is providing a thorough review of the properties, and appropriately documenting their observations. Post-Construction Property Condition Surveys will be provided if damages are reported from the property owners following construction in those areas. The successful proposer will be required to assist with these surveys as well to ensure the contractor is providing a thorough review of the properties, and appropriately documenting their observations. The proposer will further assist the City with review of these surveys and determinations as to the extent of damage caused and whether or not this damage was potentially a result of construction operations.
- 2.1.6 Close-Out Services

After the construction of the project has been completed and final payment to the Contractor has been paid by the City of Savannah, close out services shall be provided to include the following:

- A. Close-Out Documents Checklist
 - 1. Record Drawings (As-builts)
 - 2. CDs of Record Drawings (As-builts) (AutoCAD 2007 format)
 - 3. Recorded Plats

- 4. Two (2) complete sets of Mylars
- 5. Certification letter with Cost/Quantities
- B. Record Drawings (as-built drawings) must be submitted to the City of Savannah Stormwater Management Department for review and approval. The size of the sheets shall be 24" x 36". Record Drawings (as-built drawings) shall have a coordinate system based on the Georgia State Plane Coordinate System, East Zone, NAD 83. Elevations shown shall be based on NAVD 88. All measurements and coordinates shall use the U.S. Survey Foot definition. Coordinates shall be shown on all drainage structures, detention facilities, manholes, valves, fire hydrants, tees and bends. The final Record Drawings shall include all improvements by Contractor and equipment suppliers, and shall be stamped / certified by a Land Surveyor registered in Georgia and/or a Professional Engineer registered in Georgia.

2.2 Proposal Format

Proposals shall be submitted in the following format and include the following information:

- 2.2.1 Cover letter stating the intent of the Proposer for this event. Cover letter must include acknowledgement of all addenda issued for this proposal. If addenda are not acknowledged in the cover letter, proposals will not be considered further.
- 2.2.2 Consultant Statement of Qualifications
 - Upon submittal of proposals, the City will pre-qualify design firms prior to opening sealed fee proposals. Only those design firms who meet the pre-qualification requirements shall be considered.
 - As a part of this evaluation process, the City reserves the right to disqualify any party deemed unqualified to safely work within the construction site environment based on a lack of history or previous poor safety records.

Response to Consultant Statement of Qualifications (Attachment 1):

- Provide evidence of financial ability to complete the project, taking the project through design, bidding, construction, and close out services which may occur over an extended period of time. Evidence may include Standards and Poor's rating, credit ratings and information, and other financial information.
- Provide the dollar value of related projects within the last five years
- Provide the number of persons currently employed within each specialty. i.e. clerical, management, technical, professional, etc.

- Provide evidence of insurability for a project of this type. Include current Certificate of Insurance including professional liability, errors and omissions, worker's compensation, etc. coverage.
- Disclose any refusals by an insurer to renew an insurance policy issued to the design firm within the preceding five (5) years.
- Demonstrate successful experience applying sustainable and integrated stormwater management practices in urban areas.
- Provide evidence of related project experience. Due to the critical nature of this drainage project, all members of the successful design team shall have a clear history of working with, or around, sites requiring shoring, vibration controlled construction, seismic monitoring and incorporation into construction methods, de-watering, subsidence and water, sewer, and storm utilities.
- A/E Firm Information and Georgia Licenses
- Project Team
- Organizational Chart
- Resumes

2.2.3 Project Approach

Detailed narrative description of consultant's proposed project approach addressing critical project requirements, including, but not limited to:

- Coordination with Owner and Milestones for Progress Meetings/Workshops
- Geotechnical Services
- Subsurface Utility Investigation Methods and Equipment to be used
- Sustainable and Integrated Stormwater Management to protect water quality and provide community enhancements
- Tree Protection
- Cost Estimating
- Maintaining Project Schedule
- Quality Assurance
- Construction Methods and Vibration Control

2.2.4 Detailed Project Schedule

Project schedule (Gantt Chart) for completion of concept report, site investigations, plans and specifications, permitting submittals, etc., including start and end dates for task or sub-task completion, submittal dates, major project milestones, review periods, and critical path.

Schedule shall include all tasks and milestones necessary to indicate project approach. Exhibit 1 of Attachment 3 is provided only to suggest tasks and milestones, it is anticipated that the proposers schedule will have more detail and may be presented in a different order. The proposed schedule will be strictly followed throughout the project duration, and shall only be modified as agreed between the City and consultant.

2.2.5 Hourly Rate Schedule

Provide hourly rates for each type and class, (e.g. – Project Manager, Engineer IV, CAD Operator, Administrative Assistant, etc.) of individual assigned to the project team.

Submit rate schedule on the form provided as Exhibit 2 of Attachment 3. As Exhibit 2 may not capture all necessary staff type and/or class, the consultant shall include the firm's published rate schedule.

Hourly rates shall be fully burdened, including overhead and profit.

2.2.6 Non-Discrimination and M/WBE Schedule

Provide completed Non-Discrimination Statement and Proposed Schedule of Minority and Women owned Business Participation. Proposers must use the forms provided following Section III of this RFP.

2.2.7 Fee Proposal

Proposer shall submit fees in a separate, sealed envelope per instructions in Section III and signed by responsible party. Fees shall not be included within the body of the proposal. Hourly rate sheets should be included in this envelope.

2.2.8 Constructability within Budget

Proposers must provide an estimated project construction budget. This project construction costs budget may not be exceeded without written approval by the owner. Please refer to Attachment 3, Agreement Between Owner and Consultant, Item 1. B. Basic Services of the Consultant, (3) Design Within Budget, for additional details. This value will be inserted in the final contract "Agreement Between Owner and Consultant". The project construction budget value should be provided by the proposer in Attachment 2, as part of their initial proposal submittal. Please make sure you fill in the blank with the monetary amount your firm would feel comfortable as being printed in the executed Consultant Agreement.

2.3 Basis of Award

2.3.1 Criteria and Weighting

Proposals will be evaluated according to the following criteria and weight:

- a) Experience with the design of similar projects (25 points)
- b) Project approach (15 points)
- c) Project team (20 points)
- d) Proposed schedule (5 points)
- e) Fee proposal (in a separate, sealed envelope) (20 points)
- f) MWBE Participation goals (10 points)
- g) Local Vendor (Within the City Limits of Savannah and has a City of Savannah Business License) (5 Points)
- 2.3.2 Selection Committee

Proposals shall be evaluated by a selection committee. The selection committee will review and score the qualifications submittal prior to opening the fee envelopes. Only the fee proposals of those deemed qualified will be opened.

Proposals must have scored a minimum of 52 out of the 65 available points allocated for proposer's experience, approach, project team, and proposed schedule to be deemed qualified to have their fees opened and considered.

2.3.3 Short Listing and Best and Final Offer

A short list may be developed and interviews conducted with those proposers deemed to be most qualified. The City reserves the right to conduct interviews of any or all proposers at the City's discretion. The City also reserves the right to request a Best and Final Offer (BFO) and to re-score evaluations based on the best and final offer. Proposers may be required to provide clarification of their proposal as part of the BFO response.

2.4 Copies

One (1) unbound, printed and signed original and four (4) identical, printed copies and one (1) electronic copy of the of the proposal and supporting documents must be submitted in response to the RFP. All responses must relate to the specifications as outlined.

2.5 Contacts

Proposers must submit proposals in accordance with the instructions contained in this RFP. All requested information must be submitted with the proposal. Instructions for preparation and submission of proposals are contained in this package. All questions regarding this request for proposal shall be submitted in writing and emailed to the contact listed on the event summary page.

2.6 Minority/Woman Business Enterprise Goals

The City of Savannah has established a 13% M/WBE goal for this project. The breakdown is as follows: 7% MBE, 6% WBE.

2.7 Local Vendor Definition

A bidder or business shall be considered a local vendor if it meets all of the following requirements:

- a) The bidder or business must operate and maintain a regular place of business with a physical address within the corporate limits of the city, and
- b) The bidder or business must at the time of bid or quotation submission, have a current city business tax certificate issued by the city, and
- c) The business owner must serve a commercially useful function, meaning performance of real and actual service in the discharge of any contractual endeavor. The contractor/vendor must perform a distinct element of work for which the business owner has the skills, qualifications and expertise, as well as the responsibility for the actual performance, management and supervision of the work for which he/she has been contracted to perform.
- **2.8** Acknowledgement of Addenda: Vendor is responsible for determining and acknowledging any addenda issued in connection with this RFP. Addenda must be acknowledged in order for proposals to be considered.

SECTION III

FEE PROPOSAL

Fee proposals shall be submitted on this form in a separate sealed envelope clearly marked Fee Proposal for <u>Casey Phase II-A Drainage Improvements</u> RFP Event No. 4935 and include the name of the proposer. Fee proposals will only be opened if, after the initial evaluation, proposer is deemed to be qualified per Section 2.3. Fee proposals will then be considered in relation to the qualification points awarded to determine the overall best proposal in terms of fees and qualifications.

ALL PROPOSERS MUST BE REGISTERED SUPPLIERS ON THE CITY'S WEBSITE TO BE AWARDED AN EVENT. PLEASE REGISTER AT WWW.SAVANNAHGA.GOV. ELECTRONIC SUBMISSIONS WILL NOT BE ACCEPTED. PROPOSALS MUST BE SUBMITTED ON THIS FORM.

ITEM 2.1.2 - Preliminary Engineering

	А.	Drainage Improvement Concept Report	\$				
]	B.	Site Survey and Topographic Survey	\$				
(C.	Subsurface Utility Engineering (SUE) Services					
		Quality Level D – Database Review Quality Level C – Visual Survey	\$ \$				
]	D.	Geotechnical Investigation & Report	\$				
]	E.	Sustainable and Integrated SW Mgmt. Report	\$				
]	F.	Permitting Services (Identification)	\$				
(G.	Preliminary (30%) Plan Submittal	\$				
ITEM 2	ITEM 2.1.3 - Final Design						
	А.	Plat Preparation 5 Plats @ \$ per Plat =	\$				
]	В.	Land Acquisition Services 5 Easements @ \$ per Easement =	\$				
(C.	60% Construction Plans Submittal	\$				
1	D.	100% Construction Plans Submittal	\$				
-	Е.	Permitting Services (Submittals)	\$				

F.	Final Revisions	\$
ITEM 2.1.4 -	Bidding Services	
А.	Preparations of Plans & Specs for Bidding	\$
В.	Project Bidding Assistance	\$
ITEM 2.1.5 -	Construction Phase Services	
A.	Contract Administration	\$
Λ.	Contract Administration	Φ
В.	Full-Time Inspection – 78 weeks @ 40 hours/ *Length of project may change based on d	
ITEM 2.1.6 (A & B) - Close-out Services	\$
TOTAL FE	E PROPOSAL	\$
SUBMITTED	BY:	
PROPOSER	:	
SIGNED:		
NAME (PRIN		
ADDRESS:		
CITY/STATE	::ZIP	
TELEPHONI	E: () Area Code	
FAX:	() Area Code	
ADDE	ECEIPT OF ANY ADDENDA ISSUED FOR THIS E ENDUM# E	SID:
I certify this bi except as clear	d complies with the General and Specific Specification ly marked in the attached copy.	ns and Conditions issued by the City
Please Print N	ame Authorization Signature Da	te
	ATE MINORITY OWNERSHIP STATUS OF BIDDER (FO K ONE:	R STATISTICAL PURPOSES ONLY):
	NON-MINORITY OWNED	
	HISPANIC	AMERICAN INDIAN OTHER MINORITY Describe
	_ WOMAN (non-minority)	

NON-DISCRIMINATION STATEMENT

The bidder certifies that:

- (1) No person shall be excluded from participation in, denied the benefit of, or otherwise discriminated against on the basis of race, color, national origin, or gender in connection with any bid submitted to the City of Savannah or the performance of any contract resulting therefrom;
- (2) That it is and shall be the policy of this company to provide equal opportunity to all business persons seeking to contract or otherwise interested in contracting with this company, including those companies owned and controlled by racial minorities, cultural minorities, and women;
- (3) In connection herewith, we acknowledge and warrant that this company has been made aware of, understands and agrees to take affirmative action to provide such companies with the maximum practicable opportunities to do business with this company;
- (4) That this promise of non-discrimination as made and set forth herein shall be continuing in nature and shall remain in full force and effect without interruption;
- (5) That the promises of non-discrimination as made and set forth herein shall be and are hereby deemed to be made as part of and incorporated by reference into any contract or portion thereof which this company may hereafter obtain and;
- (6) That the failure of this company to satisfactorily discharge any of the promises of non-discrimination as made and set forth herein shall constitute a material breach of contract entitling the City of Savannah to declare the contract in default and to exercise any and all applicable rights and remedies including but not limited to cancellation of the contract, termination of the contract, suspension and debarment from future contracting opportunities, and withholding and/or forfeiture of compensation due and owing on a contract.

Signature

Title

PROPOSED SCHEDULE OF M/WBE PARTICIPATION

All M/WBEs listed **must be certified as a <u>minority-owned or women-owned</u> business** by the City of Savannah or a federallyrecognized or state-level certifying agency (such as USDOT, State DOT, SBA 8(a) or GMSDC) that utilizes certification standards comparable to the City of Savannah <u>prior</u> to the due date of this bid. <u>Other business certifications that do not specify majority</u> <u>woman or minority ownership may not be substituted</u>. **Proof of M/WBE certification from the certifying agency is required to accompany the bid.** A firm that has submitted an application for M/WBE certification but has <u>not</u> been certified is <u>not</u> qualified as a certified M/WBE and will not be recognized as such during the City's evaluation process. To expedite verification, please provide accurate phone numbers for all M/WBEs listed and ensure firms understand contact will be made following bid submittal.

Name of Proposer: _____ Event No. _____

Project Title: _____

NOTE: Unless certified through the City of Savannah M/WBE Program, proof of M/WBE certification must be attached for all firms listed.

Name of M/WBE Participant	Name of Majority Owner	Telephone	Address (City, State)	Type of Work Sub- Contracted	Estimated Sub- contract Value	MBE or WBE	Certified ? (Y or N)	Certifying Agency? (City of Sav. or Other)
					%			
					%			
					%			
					%			
					%			
					%			

MBE Participation Value: ______% WBE Participation Value: ______% M/WBE Participation Value: ______%

The undersigned will enter into a formal agreement with the M/WBE Subcontractors/Proposers identified herein for work listed in this schedule, conditioned upon executing a contract with the Mayor and Aldermen of the City of Savannah. The Prime's subcontractor that subcontracts work must enter into a formal agreement with the tier subcontractor identified herein for work listed in this schedule. The Prime may count toward the goal any tier of M/WBE subcontractors and/or suppliers that will be utilized in the contract work. However, when an M/WBE subcontracts part of the work, the value of the subcontracted work may <u>only</u> be counted toward the goal <u>if the tier subcontractor is an M/WBE</u>. Any work an M/WBE firm subcontracts to a non-M/WBE firm <u>will</u> <u>not count toward the M/WBE goal</u>. It is the responsibility of the Prime contractor to advise all M/WBEs of this requirement and to ensure compliance by subcontractors.

Joint Venture Disclosure

If the prime bidder is a joint venture, please describe the nature of the joint venture, the level of work and the financial participation to be provided by the Minority/Female joint venture firm in the space provided below.

Joint Venture Firms	Level of Work	Financial Participation
Printed name (company officer or re		
Signature:	Date	
Title:	E	mail:
Telephone:	Fax:	

The Minority/Women Owned Business Office is available to assist with identifying certified M/WBEs. Please contact the M/WBE Office at (912) 652-3582. The City of Savannah's certified M/WBE registry is posted on its website (a) www.savannahga.gov.

Developing a Strong M/WBE Participation Plan

Key facts every bidder/proposer needs to know <u>prior</u> to developing their M/WBE Participation Plan:

- All bidders/proposers must submit a "Proposed Schedule of M/WBE Participation" which identifies the minority and/or woman-owned companies that have agreed to participate in the project if awarded. All companies listed on the form must be <u>certified</u> as either <u>minority</u>-owned and controlled or <u>woman</u>-owned and controlled. The City does <u>not</u> accept a company's "self-identification" as minority or woman-owned.
- Proof of M/WBE certification from the certifying agency is required to accompany the bid; and certification must have been completed by the City of Savannah, a federally-recognized or a state-level certifying agency (USDOT, State DOT, SBA 8(a) or GMSDC) utilizing certification standards comparable to the City of Savannah.
- 3. The certification must have been approved **prior** to the due date of this bid. A firm that has submitted an application for certification but has **not** been certified will not be counted toward the M/WBE goal.
- 4. The M/WBE Office <u>will be contacting all M/WBE firms</u> included in the bidder's M/WBE Plan to confirm each: a) was contacted by the bidder/proposer; b) performs the type of work listed; and c) agreed to participate.
- 5. To expedite the verification process, bidders/proposers need to: provide accurate phone numbers for all M/WBEs listed; ensure M/WBEs know to expect to be contacted by phone and email; request M/WBEs be accessible during the critical period before bid-opening; and advise M/WBEs that City staff <u>must</u> receive the M/WBE's confirmation that the firm agreed to participate in the bid/proposal in order for the prime contractor to receive credit toward their proposed M/WBE participation goals.
- 6. If a proposed M/WBE cannot be confirmed as certified, performing the type of work described <u>or</u> agreeing to participate, the bidder/proposer will be notified and given a pre-determined period to submit a correction. If an M/WBE still cannot be confirmed or replaced, the proposed percentage of participation associated with the unverified M/WBE firm will <u>not be counted</u> and <u>will be deducted</u> from the overall proposed M/WBE goal.
- 7. <u>Any tier</u> of M/WBE subcontractors or suppliers that will be utilized in the contract work may count toward the MBE and WBE goal <u>as long as the tier subcontractors/suppliers are certified M/WBEs</u>. Work that an M/WBE subcontracts to a non-M/WBE firm does <u>not</u> count toward the M/WBE goal.
- 8. M/WBEs must perform a "commercially useful function" which is the provision of <u>real and actual work or products</u>, or performing a distinct element of work for which the business has the skills, qualifications and expertise, and the responsibility for the actual management and supervision of the work contracted.
- 9. Per the Proposed Schedule of M/WBE Participation "the undersigned (bidder/proposer) will enter into a formal agreement with the M/WBE Subcontractors/Proposers identified herein for work listed in this schedule, conditioned upon executing a contract with the Mayor and Aldermen of the City of Savannah." This signed commitment is taken seriously by the City, so do not list M/WBEs you do not plan to utilize. Any proposed changes must be pre-approved by the M/WBE Office, be based on legitimate business-related reasons, and still meet the M/WBE participation goals per the City's contract.
- 10. A bidder who is a certified M/WBE may count toward the goal <u>the portion of work or services</u> on a City contract that is <u>actually</u> <u>performed by the M/WBE</u>, including: the cost of supplies/materials purchased or equipment leased for contract work, fees for bona fide services such as professional or technical services, or for providing bonds or insurance specifically required for the performance of a City contract.
- 11. If awarded the contract, the MWBE Office <u>will be reviewing your company's subcontracts, invoices and payment records</u> to substantiate the completion of work and payment of M/WBEs. If the prime contractor is an M/WBE that is being included in its M/WBE goal, the prime contractor must maintain records <u>that will be inspected</u> to prove the portion of work performed, cost of work, and payments to the prime company.
- 12. Most bids for goods and materials do not have specific MWBE goals established for the contract. If no goals are include in the scope of work or General Specifications, you are not required to submit MWBE participation but encouraged to do so when the opportunity is available. The City maintains this information for statistical purposes only and it is not reflected in the award decision.

ATTACHMENTS TO REQUEST FOR PROPOSALS FOR

CASEY PHASE II-A DRAINAGE IMPROVEMENTS (EVENT NO. 4935)

Attachment 1 – Consultant Statement of Qualifications

Attachment 2 – Design within Budget: Proposed Total Project Construction Budget

Attachment 3 – Agreement between Owner and Consultant

ATTACHMENT 1 CONSULTANT STATEMENT OF QUALIFICATIONS

Contact Information

Provide information for a Principal Owner or Corporate Officer representing the prime contractor or joint venture that can be contacted for additional information:

tion (Prime A/E	<u>Firm)</u>
ed:	DUNS Number:
:	M/WBE Status:
vhere work will be	performed:
nel at office perfori	ming the work to provide services for the project:
neers:	
l Surveyors:	
•	
spectors:	
organization	
i organization.	
	tion (Prime A/E ed:

If your firm were selected for the proposed project, would your firm's services be immediately available? If not, indicate length of delay:

Yes:_____ No:_____

Could your firm provide continuous and uninterrupted services until the project is completed? Yes: No: Please explain your approach to ensure this is possible.

Total value (engineering and construction overview fees) of all projects successfully completed by the office performing the work over the past 5 (five) years: <u>\$</u>_____

Provide Total Value of Projects Successfully Completed by year:

- 2012: \$
- 2013: \$
- <u>2014: \$_____</u>
- 2015: \$_____

2016: \$_____

Total value of all projects (engineering and construction overview fees) currently under contract at the office performing the work: \$______

Limits of your firm's errors and omissions insurance: \$_____

Errors and omissions insurance deductible: \$_____

Has your firm ever been involved in litigation with an owner, sub consultant, contractor, or private developer? If so, indicate the case(s), the reason for, and the results of, the litigation:

Has your firm filed an Errors and Omissions insurance claim in the last five (5) years?

Has your firm changed names within the past ten (10) years?

If yes, respond to the litigation question above for the firm under any previous name(s).

Give three examples of how your firm has handled information gained once a design for construction was awarded. Please provide how your firm as "the Consultant", handled mistakes by subconsultants, or otherwise succeeded when problems developed during construction:

Please attach a copy of the current applicable Georgia Licenses held by the prime A/E contractor. Label and include as **Attachment A.**

B. Proposed Project Team

Provide the name, full mailing address, and contractual relationship, and a brief description of the role of each firm that will be involved in performance of the contract using the forms provided as **Attachment B**. List the lead consultant or joint venture partners first. If a firm has a branch office, indicate each individual branch office that will have a key role on the team. If

more than four (4) firms are involved in the project team, use multiple copies of the attachment. The named sub-contractors and outside associates or consultants must be used, and any change must be approved by the City.

C. Organizational Chart

Provide an organizational chart of the proposed team showing the names and roles of all key personnel and the firm with which they are associated. Include technical staff that shall be performing the work.

Project Manager shall remain with the Project throughout the term of the A/E Agreement with the Owner. The Project Manager shall not be replaced or substituted without permission of the Owner. If the proposed Project Manager was not involved directly in at least three (3) of the projects listed in response to the "Related Project Experience" information request, please provide a discussion of why the project manager is very capable of managing this project and include as an attachment to the Project Manager's resume.

The following team members shall be considered as Key Personnel and shall be included in the organizational chart and have their resumes provided as discussed below:

Principal in ChargeProject ManagerQuality Control Team LeaderLead Geotechnical EngineerChief Construction Inspector

Consultant shall include other team members as Key Personnel as appropriate.

Label and include Organizational Chart as Attachment C.

D. <u>Resumes of Key Personnel</u>

Provide the information requested in **Attachment D** for each key person who shall participate in the contract. *If existing resumes for team members are provided, Attachment D will still be required.*

Group entries by firm, with personnel of the prime consultant or joint-venture partner firms first. To successfully complete the form, please note that the following information must be provided:

Name, title, and role in project team

Total years of relevant experience and total years of relevant experience with current firm

Name, city and state of the firm where the person currently works, which must correspond with one of the firms listed in Attachment B (Project Team Data)

The highest relevant academic degree(s) received and the area(s) of specialization for each degree

Current relevant professional registration(s) in the United States

Other relevant professional qualifications relating to this project such as publications, organizational memberships, training, awards, etc.

The projects which the individual is currently obligated to spend at least four (4) hours per week and an estimate of the time the team member will be available during the active design phase of this project

Up to four (4) relevant, projects in which the individual had a significant role that demonstrates the person's capability **relevant to his or her role in the proposed project**. If any of the professional services or construction projects are not complete, indicate so in the project description response.

E. <u>Related Project Experience</u>

Related Project Experience – Select projects that demonstrate the firm's capability to perform work **similar to the proposed project**. Projects must be located in the United States of America, and the study, design, or permitting efforts must have been implemented. Present at least four (4) and at most eight (8) projects. *If existing narratives of project descriptions are provided, Attachment E will still be required.*

Demonstrate a consistent ability to meet contract prices with a minimum of contract addendums which result in no additional contract costs.

Demonstrate the accuracy of estimated engineer's opinion of probable cost in the last five (5) years of related projects.

<u>Attachment A – Applicable Georgia Licenses</u>

Attach copies of all current applicable Georgia Licenses held by the prime A/E contractor behind this page.

Attachment B – Proposed Project Team Data

Please complete the following form for all members of the proposed project team (firms). Should additional pages be required, attach additional copies of this form.			
Firm Name:			
Relationship: Prime	Joint-Venture Partner	or Sub-Contractor	
Mailing Address:			
Role in this Contract:			
Firm Name:		M/WBE Status	
Relationship: Prime	Joint-Venture Partner	or Sub-Contractor	
Mailing Address:			
Firm Name:		M/WBE Status	
Relationship: Prime	Joint-Venture Partner	or Sub-Contractor	
Firm Name:		M/WBE Status	
Relationship: Prime	Joint-Venture Partner	or Sub-Contractor	
Mailing Address:			
Role in this Contract:			

Attachment C – Organizational Chart of Project Team

Attach the Organizational Chart for the proposed project team behind this page.

Attachment D – Resumes of Key Personnel

Team Member:				
Name and Title:				
Role in Contract:				
Years of relevant experience, total: Years of relevant experience, current firm:				
Firm Name and Location (City & State):				
Educational Achievements (Degree and Specialization):				
Current Professional Registration(s) (State and Discipline):				
Other Professional Qualifications (Publications, Organizations, Training, Awards, etc.):				
Current Projects:				
Estimated availability during active project phases (hours/week):				
1) Project Name and Location (City and State):				
Years Completed: Engineering: Construction (if applicable): Brief Description (Brief scope, size, cost, etc.), Specific Role, and Firm Representing:				

2)	Project Name and Location (City and State):				
Years	Completed: Engineering:	Construction (if applicable):			
	Description (Brief scope, size, cost, etc.), Spe				
3)	Project Name and Location (City and State):			
Years	Completed: Engineering:	Construction (if applicable):			
Brief [Brief Description (Brief scope, size, cost, etc.), Specific Role, and Firm Representing:				
4)	Project Name and Location (City and State):			
Years	Completed: Engineering:	Construction (if applicable):			
Brief Description (Brief scope, size, cost, etc.), Specific Role, and Firm Representing:					
Attachment E – Example Projects by Design Team (Example #)

Project Title and Location:

Point of Contact, Name:_____

Point of Contact, Telephone Number:

Provide a brief description of the example project <u>and its relevance to the proposed project</u>. Include factors such as scope, size, cost, principal elements, and features of the project:

Indicate the size, nature, and basis for any contract amendments:

Team Members (firms listed in Attachment B) involved in this Project:

Firm Name & Location (City/State):_____

Role in Project:

Firm Name & Location:	
Role in Project:	

Firm Name & Location:	
Role in Project:	

Firm Name & Location:	
Role in Project:	

ATTACHMENT 2 DESIGN WITHIN BUDGET: PROPOSED TOTAL PROJECT BUDGET

Design Within Budget: It is the responsibility of the Consultant to provide a design within their total estimated project construction budget. If the project overall costs appear to exceed this budget at any phase, the Consultant must notify the Owner in writing, and include suggestions for reducing the cost to within the originally estimated budget. If construction bids exceed this budget, or the revised approved budget, the Consultant shall redesign the project to within the approved budget at no additional cost to the owner. The total estimated project construction cost budget is \$

Note: This project construction cost budget is to be provided within this attachment and submitted as a part of the proposer's initial proposal to the City of Savannah along with the other requested information described in this Request for Proposals.

ATTACHMENT 3

AGREEMENT BETWEEN OWNER AND CONSULTANT

THIS AGREEMENT made as of the _____ day of _____, 2015, by and between the MAYOR AND ALDERMEN OF THE CITY OF SAVANNAH, hereinafter called the **Owner**, and ______, hereinafter called the **Consultant**.

WITNESSETH, that whereas the Owner intends to conduct the CASEY PHASE II-A

DRAINAGE IMPROVEMENTS, hereinafter called the PROJECT, Project No. DR-911.

NOW, THEREFORE the **Owner** and **Consultant**, for the consideration hereinafter set forth, agree as follows:

- **1. THE Consultant AGREES** to provide the following Professional Services for the project, in accordance with the attached detailed Scope of Work in Exhibit 3.
 - A. <u>GENERAL</u>: The Consultant shall serve as the Owner's professional representative in the planning and preliminary design of the Project, and shall give consultation and advice to the Owner during the performance of such services.
 - (1) <u>Copyright or Patent Infringement</u>: The Consultant shall defend actions or claims charging infringement of any copyright or patent by reason of the use or adoption of any designs, drawings or specifications supplied by him, and he shall hold harmless the Owner from loss or damage resulting there from, providing, however, that the Owner within fourteen (14) days after receipt of any notice of infringement or of summons in any action therefore, shall have forwarded the same to the Consultant in writing.
 - (2) <u>Insurance</u>: The Consultant shall secure and maintain general liability insurance as will protect the Consultant from claims under the Workmen's Compensation Acts and from claims for bodily injury, death, or property damage which may arise from the performance of services under this Agreement. Further, the Consultant shall provide the Owner with evidence of Errors and Omissions Insurance, i.e., Professional Liability Insurance.

B. BASIC SERVICES OF THE CONSULTANT:

- (1) <u>Preliminary Engineering Phase</u>: The Consultant shall perform the preliminary engineering work in accordance with the detailed scope of services as included in Exhibit 3. The Consultant shall perform the work in accordance with the schedule attached hereto, and identified as Exhibit 1. All reports shall be stamped with a seal and signed by a Registered Professional Engineer registered in the State of Georgia.
- (2) <u>Final Design Phase</u>: The Consultant shall perform the final design work in accordance with the detailed scope of services as included in Exhibit 3. The Consultant shall prepare working drawings in accordance with Exhibit 3 and shall prepare specifications and other Contract Documents completely describing the material and workmanship required and procedures to be followed for the construction of the Project. The

Consultant shall perform the work in accordance with the schedule attached hereto, and identified as Exhibit 1. All final drawings and specifications shall be stamped with a seal and signed by a Registered Professional Engineer registered in the State of Georgia.

- (3) Design Within Budget: It is the responsibility of the Consultant to provide a design within their total estimated project construction budget. If the project overall costs appear to exceed this budget at any phase, the Consultant must notify the Owner in writing, and include suggestions for reducing the cost to within the originally estimated budget. If the construction bids exceed the budget, or the revised approved budget, the Consultant shall redesign the project to within the approved budget at no additional cost to the owner. The total estimated project construction cost budget is \$
- (4) Bidding Phase:
 - a) <u>Distribution of Documents</u>: The Consultant shall provide the Owner a complete set of reproducible drawings and contract documents, boldly marked "APPROVED FOR BIDDING" for reproduction and distribution to bidders by the Owner. The Consultant shall also furnish seven (7) sets of drawings at the preconstruction conference for the Contractor and Owner, boldly marked "APPROVED FOR CONSTRUCTION", at no additional cost.
 - b) <u>Pre-bid Conference</u>: The Consultant shall attend a pre-bid conference at such time and place as designated by the Owner. The Consultant shall take notes or record the proceedings and prepare and distribute meeting minutes and addenda to address all questions and necessary clarifications as discussed during the Pre-bid Conference. Such addenda shall be provided to the Owner for issuance no more than 48 hours after the Pre-bid Conference. The Consultant shall also furnish the Owner with two (2) sets of the addenda.
 - c) <u>Bid Opening</u>: The Consultant shall review and obtain copies of the bids from the Owner after the bid opening. The Consultant shall examine the bids for accuracy and shall prepare a detailed "Abstract of Bids" and submit three (3) copies of same to the Owner within five (5) days after receipt of bid documents. The Consultant shall also prepare a recommendation of award letter based on knowledge of past performance, references, contractor's forces, and bid price. The recommendation shall also be submitted with the bid abstract.
- (5) <u>Construction Services Phase</u>: During the construction services phase of the project, the **Consultant** shall be responsible for:
 - a) <u>General Administration of Construction Contract</u>: The Consultant shall advise Owner and act as Owner's representative as provided in the Construction Contract for total services including civil, architectural, structural, electrical, mechanical, hydraulic, water, sewer, landscape, and other miscellaneous disciplines, as required. Consultant shall not have authority to issue alterations to the plans and documents without approval from Owner.

- b) <u>Contract Execution</u>: The Consultant shall, upon receipt of a copy of the Notice of Award, issue seven (7) sets of complete contract documents with instructions for processing to the Contractor for execution. These executed documents shall be forwarded to the Owner by the Contractor.
- c) <u>Pre-construction Conference</u>: The Consultant shall attend a Pre-construction Conference at such time and place designated by the Owner, and shall be prepared to answer all technical questions related to the Project, and shall provide appropriate sets of construction plans. The Consultant shall also prepare and distribute the minutes of the meeting.
- d) <u>Visits to Site and Observation of Construction</u>: In connection with observations of the work of Contractor(s) while it is in progress:
 - (1) Consultant shall make visits to the site in order to observe as an experienced and qualified design professional the progress and quality of the various aspects of the Contractor(s) work. Based on information obtained during such visits and on such observations, Consultant shall endeavor to determine in general if such work is proceeding in accordance with the approved schedule and the Contract Documents, and Consultant shall keep Owner informed of the progress of the work. Each visit to the site shall be documented in a written report on Owner's "Daily Inspection Report" form and forwarded to Owner within 24 hours.

This Agreement for the Project **will require** a **Resident Project Representative** (RPR), as specified.

- (2) The Resident Project Representative will be Consultant's employee, but shall be under Owner's supervision while working on this project. Assignment of the specific individual as RPR shall be subject to approval of Owner. The RPR must be a qualified professional, but is not required to be a Registered Professional Engineer. The duties and responsibilities of the Resident Project Representative are set forth in attached "Duties, Responsibilities and Limitation of Authority of Resident Project Representative. The purpose of Consultant's visits and representation by the Consultant's Resident Project Representative at the site will be to enable Consultant to better carry out the duties and responsibilities assigned to be undertaken by Consultant during the Construction Phase, and to minimize problems during construction by permitting detection of and/or rapid response to unanticipated or changed conditions, or errors or omissions committed by design professionals, contractors, materials providers, or others. The responsibilities will include (but not be limited to the following):
 - Defective Work and Stored Materials: During such visits and on the basis of such observations, Consultant shall recommend to the Owner rejection of the work and/or material stored on site which Consultant believes will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the

Project as reflected in the Contract Documents.

- ii) <u>Interpretations and Clarifications:</u> **Consultant** shall issue necessary interpretations and clarifications of the Contract Documents and in connection therewith prepare work directive changes and minor clarification of change orders as required.
- iii) <u>Shop Drawings:</u> **Consultant** shall review and approve or take other appropriate action with respect to Shop Drawings, samples, and other data which Contractor(s) are required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Such reviews and approvals or other action shall not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.
- iv) <u>Substitutes:</u> **Consultant** shall evaluate and determine the acceptability of substitute materials and equipment proposed by Contractor(s).
- v) <u>Inspections and Tests</u>: **Consultant** shall have authority, as **Owner's** representative, to require special inspection or testing of the work, and shall receive and review all certificates of inspections, testing, and approvals required by laws, rules, regulations, ordinances, codes, orders, or the Contract Documents (but only to determine, generally, that their content complies with the requirements of, and the results certified indicate compliance with, the Contract Documents).
- vi) <u>Disputes between **Owner** and Contractor</u>: **Consultant** shall act as initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work thereunder and make decisions on all claims of **Owner** and Contractor(s) relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work.
- vii) <u>Applications for Payment:</u> Based on **Consultant's** on-site observations as an experienced and qualified design professional, on information provided by the Resident Project Representative, and on review of applications for payment and the accompanying data and schedules:
 - (1) **Consultant** shall determine the amounts owed to Contractor(s) and recommend in writing payments to Contractor(s) for the approved quantities and work performed. Such recommendations of payment will constitute a representation to **Owner**, based on such observations and review, that the work has progressed to the point indicated, and that, to the best of **Consultant's** knowledge, information, and belief, the quality of such work is generally in accordance with the Contract Documents.

- viii)<u>Contractor(s)</u> Completion Documents: **Consultant** shall receive and review maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests, and approvals which are to be assembled by Contractor(s) in accordance with the Contract Documents (but such review will only be to determine that their content complies with the requirements of, and in the case of certificates of inspection, tests, and approvals the results certified indicate compliance with, the Contract Documents); and shall transmit them to **Owner** with written comments.
- ix) <u>Inspections</u>: **Consultant** shall conduct an inspection to determine if the work is substantially complete and a final inspection to determine if the completed work is acceptable so that **Consultant** may recommend, in writing, final payment to Contractor(s) that the work is acceptable (subject to any conditions therein expressed). The **Consultant** shall conduct with the **Owner** and contractor a Pre-Final Inspection and Final Inspection and confirm 100% completion of all required work.
- x) Structural/seismographic/structural inspection services during construction; Provide assurance that the contractor is adhering to project specifications required by the design to guarantee safety of adjacent structures along the route. If this work is subcontracted, proved quality control/assurance on the sub's work.
- xi) <u>Record Drawings</u>: **Consultant** shall gather information for the preparation of record drawings based on information provided by the Contractor and by field and site surveys. These drawings shall be updated monthly, prior to the Contractor's monthly payment and shall show the final location and description of all work performed during construction with respect to property and/or rights-of-way boundaries and shall include line, grade, and invert elevation(s) referenced to Georgia grid coordinates, and signed and stamped by a Land Surveyor and Professional Engineer registered in Georgia. After the final inspection, the **Consultant** shall provide the **Owner** with two (2) sets of Chronoflex or original inked drawings on Mylar. Ammonia processed mylars are not acceptable. Record drawings shall also be submitted on CD's in a format readily usable with AutoCAD Version 2007. Final payment to the **Consultant** will be withheld until an accepted set of drawings is received. Record drawings shall include all improvements by Contractor and equipment suppliers.
- xii) <u>Limitation of Responsibilities</u>: **Consultant** shall not be responsible for the acts or omissions of any Contractor, or of any subcontractor or supplier, or any of the Contractor(s)' or subcontractor's or supplier's agents or employees or any other persons (except **Consultant's** own employees and agents) at the site or otherwise furnishing or performing any of the Contractor(s)' work; however, nothing contained in this document, inclusive, shall be construed to release **Consultant** from liability for failure to properly perform duties and responsibilities assumed by **Consultant** in

the Contract Documents.

- xiii)<u>Meetings</u>: The **Consultant** shall attend all technical and community meetings as pertains to the project at such time and place as designated by the **Owner**.
- xiv)<u>Consultant Transmittals</u>: The **Consultant** shall provide copies to the **Owner** of all documentation pertaining to the construction of the project.
- (6) <u>Closeout Services</u>: The Consultant shall perform the closeout services phase in accordance with Exhibit 3.

C. EXTRA SERVICES OF CONSULTANT:

- (1) Normal and customary engineering services do not include service with respect to the following categories of work which are usually referred to as Extra Services.
- (2) If **Owner** wishes **Consultant** to perform any of the following Additional Services, **Owner** shall so instruct **Consultant** in writing, and **Consultant** shall perform or obtain from others such services and will be paid therefore as provided in an executed Amendment:
 - (a) Preparation of applications and supporting documents for governmental financial support of the Project above and beyond those required under Basic Services; preparation or review of environmental studies and related services; and assistance in obtaining environmental approvals in addition to those required under Basic Services.
 - (b) Services resulting from significant changes in the general scope, extent, or character of the Project or major changes in documentation previously accepted by **Owner** where changes are due to causes beyond **Consultant's** control.
 - (c) Major revisions to final drawings and/or specifications previously approved, and preparation of Contract Documents for alternate proposals not previously identified. However, there shall be no compensation for this work if caused by a design error or omission.
 - (d) Provide renderings or models.
 - (e) Preparing to serve or serving as a **Consultant** or witness in any litigation, arbitration or other legal or administrative proceeding except where required as part of Basic Services.
 - (f) Post construction surveys and reports, if necessary, of structures requiring help with claims as determined by the project team/Manager.

2. THE Owner AGREES to provide the Consultant with the following:

A. <u>Access to the Work:</u> The **Owner** shall guarantee access to enable the **Consultant** to enter upon public and private lands as required for the **Consultant** to perform such work as

surveys and inspections in the development of the Project.

- B. <u>Consideration of the Consultant's Work:</u> The Owner shall give thorough consideration to all reports, sketches, estimates, drawings, specifications, proposals, and other documents presented by the Consultant, and shall inform the Consultant of all decisions within a reasonable time so as not to delay the work of the Consultant.
- C. <u>Legal Requirements</u>: The **Owner** shall hold promptly and attend all required special meetings, serve all required public and private notices, receive and act upon all protests and fulfill all requirements necessary in the development of the Project, and pay all costs incident thereto.
- D. <u>Proposals</u>: The **Owner** shall advertise for Proposals from Bidders, open the Proposals at the appointed time and place, and pay all costs incident thereto.
- E. <u>Protection of Markers:</u> The **Owner** shall protect to the best of his ability, all horizontal and vertical control points set by the **Consultant** prior to the assumption of such responsibility by the Contractor. Replacement of these points, which have been damaged, moved or removed, shall be paid for by the **Owner** as extra services of the **Consultant**.
- F. <u>Standards:</u> The **Consultant** shall use the **Owner's** Front End Specifications, Technical Specifications, and Standard Details in the preparation of the documents and plans for the project. The accepted documents are from March, 1996 and revisions thereof. In the event the **Consultant** is not on the **Owner's** list as having been issued these documents, the **Owner** will furnish free a hard copy of the documents, a computer disk copy (provided the **Consultant** provides the disks), and will include the **Consultant** on the **Owner's** mailing list to provide any revisions needed in the future. The **Consultant** must provide the **Owner** with a letter from either the President of the firm or the Office Manager designating a person who will be responsible to receive the documents. It shall be the responsibility of the **Consultant** to maintain these documents and to incorporate any revisions issued by the **Owner** into the Contract Documents and plans during the design of the project. Failure of the **Consultant** to prepare either the Contract Documents or Plans in accordance with the latest published City Standards and revisions may result in the **Consultant's** error/omission.
- G. <u>Owner's Representative:</u> The Owner shall designate the Project Engineer as the Owner's Representative with respect to the work to be performed under this Agreement. The Project Engineer, or representative, shall have sole authority to transmit instructions, receive information, interpret and define Owner's policy and decisions with respect to the material, equipment, elements and systems pertinent to the work covered by this Agreement.

3. THE Owner's PAYMENT TO THE Consultant:

<u>Payments for Basic Services of the Consultant</u>: The Owner shall pay the Consultant for the basic services described in Article 1.B of this Agreement a lump sum fee of \$______.
The lump sum is made up of the following costs:

PHASE OF THE WORK

LUMP SUM FEE

ITEM 2.1.2 - Preliminary Engineering

Α.	Drainage Improvement Concept Report	\$
В.	Site Survey and Topographic Survey	\$
С.	Subsurface Utility Engineering (SUE) Services	
	Quality Level D – Database Review Quality Level C – Visual Survey	\$ \$
D.	Geotechnical Investigation & Report	\$
E.	Permitting Services (Identification)	\$
F.	Preliminary (30%) Plan Submittal	\$
ITEM 2.1.3 - F	inal Design	
Α.	Plat Preparation 5 Plats @ \$ per Plat =	\$
В.	Land Acquisition Services 5 Easements @ \$ per Easement =	\$
С.	60% Construction Plans Submittal	\$
D.	100% Construction Plans Submittal	\$
Ε.	Permitting Services (Submittals)	\$
F.	Final Revisions	\$
ITEM 2.1.4 - B	idding Services	
Α.	Preparations of Plans & Specs for Bidding	\$
В.	Project Bidding Assistance	\$

Α.	Contract Administration	\$
В.	Full-Time Inspection – 78 weeks @ 40 hours/week *Length of project may change based on design	\$
ITEM 2.1.6 (A	& B) - Close-out Services	\$

TOTAL FEE PROPOSAL

B. <u>Progress Payments:</u> Owner shall pay the Consultant for professional services performed under 1.B and 1.C of this Agreement based on an hourly basis in accordance with the schedule of charges attached hereto, identified as Exhibit 2 based on the not to exceed fees for the individual tasks outlined in Article 3.A of this Agreement. The **Owner** shall make payment within thirty (30) calendar days upon receipt of a complete and accurate invoice. All payment requests shall be accompanied by the City's payment request form.

\$

- **C.** <u>Schedule:</u> Based on the schedule as discussed with the **Owner**, the **Consultant** shall perform all services with professional skill and diligence in accordance with the attached schedule, entitled Exhibit 1. The schedule shall not, except for reasonable cause, be exceeded by the **Consultant**.
- D. <u>Payments for Extra Services of the Consultant</u>: For extra services defined in Article 1.C, the Owner shall pay the Consultant on an hourly basis in accordance with the schedule of charges attached hereto, identified as Exhibit 2.
- E. <u>Abandoned/Suspended Work:</u> If any work performed by the **Consultant** is abandoned or suspended in whole or in part by the **Owner**, other than for default by the **Consultant**, the **Consultant** shall be paid for services performed prior to receipt of a written notice from the **Owner** of such abandonment or suspension in an amount equal to work performed as a proportion of the total lump sum fee as of the date of abandonment or suspension. The **Consultant** shall maintain their fees for a period of twelve months after receiving notice of suspended work. After this period if work is not commenced, the **Consultant's** fees may be renegotiated.

4. THE Owner AND Consultant FURTHER AGREE to the following conditions:

- A. <u>Termination</u>: This Agreement may be terminated by either party by seven (7) days' written notice in the event of substantial failure to perform in accordance with the terms hereof by the one party through no fault of the other party. The Consultant shall be paid for services performed to the date of termination, including reimbursements then due. If terminated due to the fault of the Consultant, the Consultant shall be paid for the value of services performed to the date of termination, such value as determined by the Owner.
- B. <u>Ownership of Documents</u>: The original completed tracings and master specification sheets shall remain the property of the Consultant. The Owner reserves the right to utilize the design concept and any partially completed design drawings and/or specifications for which the Consultant has been paid. The Owner shall have access to these documents at any time and reserves the right to copy said material.

- 5. SUCCESSORS AND ASSIGNS: This Agreement and all of the covenants hereof shall inure to the benefit of and be binding upon the Owner and Consultant respectively and his partners, successors, assigns, and legal representatives. Neither the Owner nor the Consultant shall have the right to assign, transfer, or sublet his interest or obligations hereunder without written consent of the other party.
- 6. SUBCONTRACTORS: All subcontracts let by the Consultant for professional services under this Agreement must be approved by the Owner. The Consultant shall submit to the Owner adequate evidence of the subcontractor's qualifications to perform the required work under this Agreement.
- 7. SPECIAL PROVISIONS: The Owner and the Consultant mutually agree that this Agreement shall be subject to the following Special Provisions which shall supersede other conflicting provisions of this Agreement.
 - A. **Consultant** shall develop contract drawings and specifications to comply with minimum requirements of all Federal, State, and Local regulatory agencies.
 - B. **Consultant** shall submit an Affirmative Action Plan which clearly demonstrates how compliance will be obtained with Title 6 of the Civil Rights Act of 1964 and the President's Executive Order Numbers 11246 and 11575 which prohibit discrimination in employment regarding race, creed, color, sex, age, or national origin.

Signatures on following page

IN WITNESS WHEREOF the parties here to have made and executed this Agreement the day and year first written above:

Owner:

THE MAYOR AND ALDERMEN OF THE CITY OF SAVANNAH, GEORGIA

Ву:	
CITY MANAGER	
	Attest:
WITNESS	CLERK OF COUNCIL
Consultant	
	Ву:
	President
	Attest:
WITNESS	Vice President and Secretary
	(Seal, if incorporated)

EXHIBITS TO AGREEMENT BETWEEN OWNER AND CONSULTANT

- Exhibit 1: Project Schedule
- Exhibit 2: Hourly Rate Schedule
- Exhibit 3: Scope of Services (Section II of the Request for Proposals will be included as Exhibit 3 to the Agreement between Owner and Consultant)
- Exhibit 4: Location Map & Project Conceptual Plan

EXHIBIT 1 SCHEDULE

Attach a detailed bar chart presenting the bidder's project schedule. Schedule shall address the project tasks and deliverables similar to those listed below and not necessarily in this order. A detailed and thoughtful schedule indicates that the bidder understands the project, is providing an appropriate level of effort, and is properly coordinating with the Owner.

- Project Kick-off Meeting
- Level D & C SUE Investigation
- Preliminary Survey
- Submit Stormwater Conduit Concept Report
 - Workshop
- Begin 30% Submittal
 - Geotechnical Investigation
 - Site Topographic Survey
- Complete 30% Submittal
 - Workshop
- Begin 60% Submittal
 - Complete Geotechnical Investigation
 - Complete Site Survey
- Complete 60% Submittal
 - Workshop
 - SPR Meeting
- Begin 100% Submittal
 - Prepare draft permit submittals
- Complete 100% Submittal
 - Workshop
- Permit Submittals
- Final Revisions
- Project Bidding

EXHIBIT 2

HOURLY RATE SCHEDULE

PROFESSIONAL

Senior Professional Engineer	\$/HR
Project Manager, (PE/RLS)	\$/HR
Professional Geologist	\$/HR
Professional Engineer	\$/HR
Land Surveyor	\$/HR
Biologist	\$/HR
Engineer V	\$/HR
Engineer III/IV	\$/HR
Registered Landscape Architect	\$/HR
Engineer I/II	\$/HR

AUTO-GRAPHICS OPERATORS, TECHNICIANS AND ADMINISTRATIVE ASSISTANCE

Engineering/Surveying Technician	\$/HR
CAD Operator	\$/HR
Administrative Assistance	\$/HR
FIELD PERSONNEL	

3-Man Topographic Survey Crew	\$/HR
2-Man Topographic Survey Crew	\$/HR
2-Man GPS Topographic Survey Crew	\$/HR
1-Man GPS Wetlands Surveyor	\$/HR
Senior Construction Project Representative	\$/HR
Construction Project Representative	\$/HR

EXHIBIT 3 SCOPE OF SERVICES

(Section II of the Request for Proposals will be included as Exhibit 3 to the Agreement between Owner and Consultant)

EXHIBIT 4 LOCATION MAP & PROJECT CONCEPTUAL LAYOUT

(Include figure Exhibit 4)