

City of Lake City Bell Road Wastewater Improvements

TO: Paul Dyal
Executive Director of Utilities
692 SW Saint Margarets Street
Lake City, Florida 32025

DATE: August 30, 2021

SUBJECT: City of Lake City Bell Road Wastewater Improvements
Jones Edmunds Proposal/Opportunity No. 95110-262-21

PROJECT BACKGROUND

Columbia County is promoting economic development north of the City of Lake City in an area currently served by the City’s utility system. The City has wastewater treatment capacity for the planned and proposed projects but must convey the wastewater flows through an older network of force mains (FMs) and gravity mains (GMs). The City hired Jones Edmunds to conduct the Bell Road Wastewater Capacity Analysis Study (Study) to review the existing collection system’s capacity and provides recommendations for infrastructure improvements to allow wastewater flows to be conveyed from the development area to the City’s wastewater treatment plants. The Study identified six potential wastewater improvement projects that would increase capacity and reduce the risk of sanitary sewer overflows, high water alarms, and/or lag pump-on conditions.

Jones Edmunds is pleased to provide the following scope of services for four of the proposed projects: NW Washington Street FM, Youngs Park Lift Station (LS), Youngs Park LS FM, and Kicklighter/St. Margarets Flow Optimization. The proposed services include surveying, engineering, permitting, and limited construction phase services.

SCOPE OF SERVICES

TASK 1 – PROJECT MANAGEMENT AND KICKOFF MEETING

PROJECT INITIATION AND MANAGEMENT

Jones Edmunds will set up project financial files and prepare a Project Management Plan (PMP) that will be used throughout the project. The PMP will summarize the City’s goals and critical success factors, project schedule, project budgets, communication plan, accounting/invoicing procedures, and project contacts list. Jones Edmunds will monitor project progress (percent complete and schedule) and manage the project in conformance with the PMP to the extent possible throughout the contract.

KICKOFF MEETING WITH CITY PERSONNEL

Jones Edmunds will conduct a virtual kickoff meeting with the City. During the kickoff meeting, the following will be discussed:

- Key issues and confirmation of the City's objectives and expectations related to the project.
- Availability of information to be used in the preliminary engineering services.
- Refine overall project objectives and project schedule.

TASK 2 – PRELIMINARY DESIGN

Jones Edmunds will provide the following preliminary design and engineering services before obtaining the topographic survey and developing the detailed design drawings and specifications. The purpose of this task will be to evaluate the proposed force main route and lift station location based on a site visit and walk-through of the route and to assess the available geographic information system (GIS) data.

This task will include the following:

- **Wetland Delineation and Listed Species Assessment.** Jones Edmunds will delineate jurisdictional wetlands and surface waters along the proposed route and locate key flags using a handheld global positioning system (GPS) unit prior to mobilization of the survey subcontractor. A preliminary wetland and surface water delineation map will be generated and provided to a registered surveyor to locate as part of the topographic survey. This effort will include a listed species assessment.
- **Existing Data Collection and Review.** Review available GIS data such as existing infrastructure geodatabases, County parcel data, recent high-resolution aerial imagery, National Wetland Inventory data, and LiDAR elevation data as available.
- **Site Visit.** Perform a walking site visit of the proposed route to identify potential utility conflicts, assess general site conditions such as traffic and special considerations, visualize potential constructability challenges, and develop recommendations for the side of the road for the pipe and the locations of the proposed lift station and valve vault(s).
- **Develop Preliminary Layout.** Develop 10% preliminary design-level GIS figures of the proposed force main route, indicating the recommended side of the road for the pipeline, and locations of the proposed lift station, valve assemblies, and trenchless installations (either by horizontal directional drill (HDD) or jack and bore). Preliminary design figures will also note any potential easements the City may need to acquire.
- **Model Scenarios and Develop Preliminary Pump Selection.** Gather and evaluate data to develop design wastewater flow rates for hydraulic modeling and pump station sizing. Build upon existing hydraulic models, perform model simulations in Bentley SewerGems to evaluate the pump station and force main sizes, select pumps, and develop a design calculation package summarizing the design criteria, model results, and selected system components.

Once the preliminary figures are developed, Jones Edmunds will host a design review workshop with the City to discuss the model results and proposed improvements before providing the surveyor and geotechnical subconsultant their Notice to Proceed (NTP). Items

discussed and agreed to during the design review workshop will be incorporated into the Final Design.

Deliverables

One electronic PDF copy of the preliminary design figures and the design calculation package, a GIS shapefile of any delineated wetland boundaries, and design review meeting minutes will be provided to the City.

TASK 3 – SURVEYING

Jones Edmunds will authorize a professional land surveyor (PLS) subconsultant to perform a topographic/location survey within the limits of the proposed wastewater improvements in support of the design. The topographic survey will meet the Standards of Practice as prescribed by the Florida Board of Professional Land Surveyors in Chapter 5J-17 of the Florida Administrative Code (FAC), Section 472.027 of the Florida Statutes. The survey will include the following:

- Task I – See the attached Bell Road Wastewater Improvements Project map. The PLS will survey the full roadway right-of-way (ROW) along this route which will be developed into the base map for the construction plans/documents. This task will include:
 - Based on Task 2 Preliminary Design, provide design-level survey services for the full ROW from NW Railroad Street to each of the wastewater treatment plants, based on the provided map, including a 50-foot by 50-foot section where the lift station is proposed and a 25-foot by 25-foot section where each valve assembly is proposed.
 - Determine the right-of-way for the primary roadways and intersecting roadways to the return radius.
 - Locate aboveground improvements and utilities.
 - Locate underground drainage and sewer facilities with pipe size, material, and elevation.
 - Locate wetland delineation flags placed by Jones Edmunds staff.
 - Create a survey baseline for all primary roads.
 - Set control points with x, y, and z at 500-foot intervals.
 - Locate utility designations and test holes data performed as part of Task II.
- Task II – Provide Subsurface Utility Designation and Verification (Test Holes):
 - Perform Quality Level B survey at each major utility crossing along the proposed route. Horizontally locate and field mark (paint and/or flags) public subsurface utility mains found excluding service lines and irrigation along the selected project route.
 - Coordinate obtaining Sunshine 811 and utility locates to include supplemental calls to each locator to expedite the field marking of each subsurface utility as required by law.
 - Expose the subject utilities by using non-destructive vacuum excavation methods at up to fifteen (15) specific locations.
 - Confirm/determine the vertical and horizontal position of the subject utilities and record the information, using the locate marks provided by the utility owners, their representatives, and/or by Quality Level B survey.
 - Reference each test-hole location to a minimum of three visible physical features to enable these data to be added to the base map and enable future recovery.

Deliverables

One paper copy and one electronic PDF copy of the final survey signed and sealed by the PLS will be provided to the City.

TASK 4 – GEOTECHNICAL SERVICES

Jones Edmunds will authorize a professional geotechnical engineering subconsultant for this project. The geotechnical investigation is expected to include the following:

- Up to 12, 10-foot-deep hand auger borings spaced at approximately 1000-foot intervals along the proposed force main route.
- Four, 25-foot-deep standard penetration test (SPT) borings to be used for horizontal directional drill (HDD) layout and design (two SPTs at each HDD location).
- One, 50-foot-deep (SPT) boring at the proposed lift station location.

The subsurface investigation will occur when the approved preliminary design is in place, and borings will be conducted at the selected locations along the proposed route.

A geotechnical report summarizing the following will be provided:

- Classifying representative soil samples including percent soil fines (sieve determinations), organic content, natural moisture determination, and Atterberg limit tests.
- Water-table levels found during exploration and the seasonal high-water level for each boring.
- Recommendations for suitability of soils for trenchless installations.
- Recommended subgrade preparation for the proposed force main and lift station.

Deliverables

One paper copy and one electronic PDF copy of the final geotechnical report will be provided to the City.

TASK 5 – FINAL DESIGN

Task 5 will consist of three submittals – 60% Design, 90% Design, and Final Design. The 60% submittal will include design Drawings and a Technical Specification table of contents. The 90% and Final submittals will include design Drawings and full Technical Specifications. Each submittal will include an Engineer's Opinion of Probable Construction Cost (EOPCC).

The Drawings will use Jones Edmunds' presentation standards. The City-provided standard details will be used to the extent practical. A preliminary list of Drawings is outlined below as a basis of design for our fee estimate. The Bell Road Wastewater Improvements Project plan and profile sheets will be prepared at the following scale:

- Horizontal: 1 inch = 20 feet (full-size sheets, 22-x-34-inch); and 1 inch = 40 feet (half-size sheets, 11-x-17-inch).
- Vertical: 1 inch = 5 feet (full-size sheets, 22-x-34-inch).

Drawing No.	Title
G-1	Cover Sheet
G-2	Drawing Index and Key Map
G-3	General Notes
G-4	Legends and Pipe Schedule
C-1 to C-22	Force Main Plan and Profile Sheets
C-23 to C-26	Civil and Utility Details
C-27 to C-31	Erosion and Sedimentation Control Plan, Notes, and Details
M-1	Lift Station Mechanical Site Plan
M-2	Lift Station Mechanical Sections
M-3	Force Main Valve Assembly Plan, Section, and Details
M-4	Mechanical Details
E-1	Electrical Legend
E-2	Lift Station Electrical Site Plan
E-3	Lift Station Electrical Schedule, Diagram, and Details
E-4	Lift Station Generator Details

The Specifications will be prepared using Jones Edmunds’ standard Construction Standards Institute 16-division format using 2018 EJCDC Front-End Documents and Technical Specifications. Jones Edmunds will customize the Technical Specifications based on comments from the City.

60% DESIGN SUBMITTAL

The 60% Design Submittal Package will be submitted to the City for review and comment and will include the following:

- Design Drawings – design drawings including General, Civil, and Electrical.
- Technical Specifications – table of contents (TOC) identifying selected specification sections for major project components.
- EOPCC.

The EOPCC accuracy range will be Class 3 according to the Association for the Advancement of Cost Engineering (AACE) International’s Cost Estimate Classification System (Recommended Practice No. 18R-97). The classifications depend on the level of project definition, with Class 1 being the highest level of definition and Class 5 being the lowest level of definition.

We assume that the City will need 2 weeks to review the submittal package. Jones Edmunds will participate in a review meeting at the City’s Utility Annex office to discuss and obtain comments from the City on the 60% Submittal. Changes agreed to at the meeting will be incorporated into the 90% documents.

Deliverables

- 60% Design Drawings in PDF format.
- Draft Technical Specifications TOC in PDF format.
- EOPCC in PDF format.
- Meeting minutes from the 60% Review Meeting.
- Updated raw SewerGEMS, ArcGIS, and AutoCAD data collected and developed.

90% DESIGN SUBMITTAL

The 90% Design Submittal package will be submitted to the City for review and comment and will include the following:

- Design Drawings – Updated drawings including General, Civil, Electrical, and Details.
- Technical Specifications – draft specification sections for major project components showing most major edits with selections of materials for the project.
- EOPCC.
- Draft permit application packages (FDEP, FDOT, and County) for City signature and submittal to the appropriate agencies.

The EOPCC accuracy range will be Class 2 according to the Association for the Advancement of Cost Engineering (AACE) International's Cost Estimate Classification System (Recommended Practice No. 18R-97). The classifications depend on the level of project definition, with Class 1 being the highest level of definition and Class 5 being the lowest level of definition.

We assume that the City will need 2 weeks to review the submittal package. Jones Edmunds will participate in a review meeting at the City's Utility Annex office to discuss and obtain comments from the City on the 90% Submittal. Changes agreed to at the meeting will be incorporated into the Final Design Submittal documents.

Deliverables

- 90% Design Drawings in PDF format.
- Draft Technical Specifications in PDF format.
- Draft permit application packages in PDF format.
- EOPCC in PDF format.
- Meeting minutes from the 90% Review Meeting.
- Updated raw SewerGEMS, ArcGIS, and AutoCAD data collected and developed.

FINAL DESIGN SUBMITTAL

After the 90% design review meeting, Jones Edmunds will incorporate the City's review comments into the Final Design Package and issue the Final Design Submittal. The Final Design will be completed after obtaining all approved permits described in Task 6. The Final Design Submittal will include the Drawings, Front-End Documents, Technical Specifications, a final Class 1 EOPCC, and approved permit application package(s).

Deliverables

- Final Design Drawings – two signed-and-sealed hard copies (one 22-x-34-inch and one 11-x-17-inch) and an electronic copy (PDF format).
- Final Technical Specifications – two signed-and-sealed hard copies and an electronic copy in PDF format.
- Final EOPCC in PDF format.
- Signed permit application packages and copies of issued permits.
- Final raw SewerGEMS, ArcGIS, and AutoCAD data collected and developed.

TASK 6 – PERMITTING ASSISTANCE

Jones Edmunds will provide the permitting services described below. All permit applications will be submitted based on the 90% Design Submittal.

FDEP PERMITTING

- Prepare an FDEP Domestic Wastewater Collection/Transmission System permit application package, including forms, calculations, exhibits, maps, and drawings for the new lift station and new force mains.
- Prepare a General Environmental Resource Permit (ERP) application package, including forms, calculations, exhibits, maps, and drawings for the proposed construction.
- If wetlands will be impacted by project construction, a Section 404 permit application may be required. If so, a General 404 permit application package will be prepared, including forms, calculations, exhibits, maps, and drawings for the proposed construction.
- Each application package will be provided to the City for review, approval, and signatures before being submitted to FDEP.
- Respond to one FDEP Request for Additional Information (RAI) per application.
- Following construction, prepare a Request for Approval to Place a Domestic Wastewater Collection/Transmission System into Operation.

FDOT PERMITTING

Jones Edmunds will prepare two FDOT Utility Permit applications, one for the crossing of US-90 (Duval Street) and one for the crossing of State Road 10A (Baya Road). Jones Edmunds will respond to one RAI per application. The City will pay any review/application fee. Comments from FDOT will be incorporated by Jones Edmunds into the Final Submittal.

COLUMBIA COUNTY PUBLIC WORKS RIGHT-OF-WAY PERMIT

Jones Edmunds will apply to Columbia County Public Works Department for a Right-of-Way Utilization permit and respond to up to one RAI. The City will pay any review/application fee. Comments from Columbia County will be incorporated by Jones Edmunds into the Final Submittal.

Deliverables

Jones Edmunds will provide one hard copy and one electronic PDF copy of each draft permit application to the City for review. The final permit applications will require City signatures. Jones Edmunds will collect the signed permit applications from the City and submit to the

regulatory agencies. Electronic and hardcopies of all fully executed permits will be provided to the City.

TASK 7 – BIDDING AND LIMITED PROFESSIONAL SERVICES DURING CONSTRUCTION

BIDDING SERVICES

Jones Edmunds will assist the City during a proposed 45-day bidding and award process for the project as follows:

- Provide electronic Bid Documents in PDF format to the City. The City will advertise the project through ProcureNow; the City will distribute and maintain distribution records of Bid Documents to the prospective bidders and correspond with prospective bidders.
- Assist the City with one addendum to the Contract Documents. Verbal and written questions from prospective bidders will be first directed to the City. The City and Jones Edmunds will decide if issuing an addendum is required. Jones Edmunds will prepare responses to the bidders' questions to the City, prepare the addenda, and provide the addenda to the City for distribution. Contractor questions received less than 7 calendar days prior to bid opening will not be received by Jones Edmunds.
- Conduct one non-mandatory pre-bid meeting with prospective bidders, direct the meeting, and develop/issue any subsequent minutes or addenda associated with the pre-bid meeting.
- Review the bidders' cost proposals, prepare proposal tabulation, conduct reference and bond checks of the apparent low bidder, and develop a contract award recommendation letter.

CONSTRUCTION-ADMINISTRATION ASSISTANCE AND LIMITED OBSERVATION SERVICES

A 12-month construction schedule is proposed for this project, consisting of a 2-month submittal and material acquisition period and 10 months on site. Jones Edmund's Limited Professional Services During Construction services are based on this 10-month construction schedule. The limited construction-phase services provided will consist of the following:

Submittal Review

Jones Edmunds will receive, log, review, and issue comments on project submittals, including administrative submittals (i.e., construction schedules and work plans), shop drawings, and product data for the materials to be incorporated into the project, warranties, samples, and O&M manuals. Jones Edmunds estimates approximately 24 submittals for this project. This Scope of Work includes an initial review and one resubmittal review for each submittal. Submittals will be returned to the Contractor within 14 calendar days if all deviations are not listed as requested on the project forms.

Site Visits

During construction, Jones Edmunds will visit the site to observe construction progress and review that the project work is progressing in general conformance with the Contract Documents. It is assumed that one of the site visits each month will be a progress meeting led by the Contractor. For this Task, we have planned up to 40 site visits to perform these services. If additional site visits are required, they can be performed on an as-needed,

time/materials basis. It is assumed that the City will provide daily construction inspection services including completing daily logs and photographs of work completed.

Construction Project Closeout and FDEP Certification

Jones Edmunds will conduct one substantial completion site review with the City and the Contractor when the Contractor submits their request for substantial completion. We will prepare a punch list of items that need correction and completion. Final Completion will be certified once the punch list items are completed.

Jones Edmunds will prepare the Certification of Completion (COC) documentation and prepare and submit the FDEP Request for Approval to Place a Domestic Wastewater Collection/Transmission System into Operation (Form 62-604.300(8)(b)) for the connection. For the preparation of the COCs, we have assumed that the Contractor shall provide surveyor signed/sealed as-built drawings of the completed lift station and force main.

SCHEDULE

Jones Edmunds will begin work on this project within two weeks of receipt of a signed contract and Notice to Proceed (NTP) from the City. The schedule for this project will be based on the negotiated agreement between the City and Jones Edmunds. Preliminarily, the project tasks are estimated to be completed as follows:

Task	Calendar Days	Calendar Days from NTP
Task 1 – Project Management and Kickoff Meeting	14	14
Task 2 – Preliminary Design	45	60
Task 3 – Surveying	60	120
Task 4 – Geotechnical Services	30	120
Task 5 – Final Design		
60% Design Submittal	60	240
90% Design Submittal	30	
Final Design Submittal	30	
Task 6 – Permitting Assistance	45	254
Task 7 – Bidding and Limited Professional Services during Construction	12 months	-

Note: The above schedule assumes 14-day client review times and that the permits will be received within 60 days from submittal of the permit applications.

PROPOSAL CLARIFICATIONS

The following clarifications are assumptions, exclusions, or conditions to this Scope of Services. Excluded items may be provided by Jones Edmunds with written authorization via a contract amendment.

- The force main pipe size will be based on the Study dated October 30, 2020.
- No residential and/or commercial service connections will be added to the new force mains.

- This project will not require design or permitting of stormwater systems.
- The project will not require modifications to existing roads.
- Survey of the wastewater treatment facilities is excluded; Jones Edmunds will rely on City-provided drawings and as-builts.
- It is assumed that up to 25-percent of the survey will be Quality Level B; the remaining survey will be Quality Level C.
- The proposed scope assumes that wetland impacts will be avoided by following existing ROW. If the design requires alternate construction methods which will result in wetland impacts, Jones Edmunds can provide additional design services under separate scope and fee.
- Wetland mitigation and associated permitting is excluded from this Scope of Services.
- Individual ERP permitting is excluded from this Scope of Services. If the design requires an individual ERP, Jones Edmunds can provide additional permitting services under separate scope and fee.
- Environmental site assessments and threatened or endangered species, archaeological, or historical investigations are not expected to be necessary and are excluded from this Scope of Services.
- Permitting services other than those described herein are excluded from this Scope of Services.
- RAIs from permitting agencies will not result in changes to the pipeline route/alignment or construction methods.
- All permit application fees will be paid by the City.
- If Section 404 permitting is required permit issuance may take longer than 60 days; construction will not be allowed to begin until all appropriate permits are received.
- Gopher tortoise survey and Temporary Exclusion Permits are excluded from this Scope of Services. Jones Edmunds can provide these services under separate scope and fee if necessary.
- The City will coordinate with the County and other necessary parties on any activities related to zoning, comprehensive planning, fire-department approvals, building-permitting approvals, and easement acquisition.
- The City will acquire all required easements/properties, legal descriptions, and official boundary surveys. Professional services related to these activities are excluded from this Scope of Services.
- The City will provide full-time resident observation for the project and will review and approve all pay requests. These services are not included in this Scope of Services.

COMPENSATION

In accordance with our Contract for Consulting Engineering Services, Jones Edmunds proposes to perform the Scope of Services as described herein on a not-to-exceed, time and materials basis for Task 3 and Task 7 and on a lump-sum fee, percent-complete basis for the remaining Tasks:

Task	Cost
Task 1 – Project Management and Kickoff Meeting	\$14,000
Task 2 – Preliminary Design	\$27,300
Task 3 - Surveying	\$136,800*
Task 4 – Geotechnical Services	\$14,300
Task 5 – Final Design	\$72,500
Task 6 – Permitting Assistance	\$17,200
Task 7 – Bidding and Limited Professional Services During Construction	\$120,900*
Total	\$403,000

*Not-to-exceed cost.

Jones Edmunds appreciates this opportunity to offer our continuing professional engineering services to the City of Lake City and looks forward to working with the City on this important project. If you have any questions or wish to discuss any aspect of the proposed Scope of Services, please contact me at 352-377-5821 or jsbell@jonesedmunds.com.

Sincerely,



Jamie Sortevik Bell, PE, CFM
Engineer

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