



June 18, 2020

Board of Public Works & Safety
City of Lafayette
20 North 6th Street
Lafayette, IN 47901

Dear Board Members:

You have before you a Contract Amendment 1 with Greeley and Hansen LLC regarding Combined Sewer Overflow Long Term Control Plan (LTCP) Phase II-C. The scope of this Amendment includes the following tasks:

- General Design Phase
- Long Term Control Plan Updates
- Preliminary Design
- Basis of Design Report
- Final Design
- Asset Management Phase II

Greeley and Hansen LLC will perform this work for a not-to-exceed increase of \$1,215,640, bringing the total contract amount to \$1,408,140. This contract was reviewed by the City Attorney and I recommend it for your approval.

Respectfully,

A handwritten signature in black ink, appearing to read "Brad W. Talley", is written over the printed name.

Brad W. Talley
Superintendent
Lafayette Renew



AMENDMENT NO. 1
to
AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

between

CITY OF LAFAYETTE, INDIANA

and

GREELEY AND HANSEN

This AMENDMENT NO. 1 is made on the ____ day of June in the year 2020, to modify the AGREEMENT dated February 4, 2020, between the City of Lafayette, Indiana, hereinafter referred to as CITY, and Greeley and Hansen LLC, an Illinois Limited Liability Company, with its principal offices at 100 South Wacker Drive, Chicago, Illinois 60606-4003, and a regional office at 7820 Innovation Boulevard, Suite 150, Indianapolis, Indiana 46278, hereinafter referred to as ENGINEER, for additional professional engineering services in connection with the Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP) Phase II-C Pearl River CSO Control Facility, the PROJECT.

The AGREEMENT is hereby amended as follows:

1. Article II.A, Basic Services shall be expanded to include Exhibit A-1, attached as part of this AMENDMENT NO. 1.
2. The method of compensation for Basic Services shall be the same as that described in Paragraph A of Article III for Personnel Services. Article III, Engineer's Compensation, is increased by \$1,215,640 as indicated in Exhibit B-1, attached and made part of this AMENDMENT NO. 1. This AMENDMENT NO. 1 increases the total contract value to \$1,408,140.
3. Article II.C, Period of Services, is revised as indicated in Exhibit C-1, attached and as such that the work will be substantially complete by July 2021.
4. All other provisions of, and Exhibits to, the AGREEMENT in force prior to the effective date of this AMENDMENT NO. 1 shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this AMENDMENT NO. 1 to the AGREEMENT to be executed by their duly authorized officers, principals, and employees the day and year first above written.

GREELEY AND HANSEN LLC

CITY OF LAFAYETTE, INDIANA
BOARD OF PUBLIC WORKS AND SAFETY



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AMENDMENT NO. 1 FOR PROFESSIONAL SERVICES

between
CITY OF LAFAYETTE
and
GREELEY AND HANSEN LLC

**SCOPE OF ENGINEERING AND OFFICE
CONSTRUCTION SERVICES FOR
CSO Storage Facility at Pearl River Lift Station
(CSO LTCP – PHASE II-C)**

The City of Lafayette's (City) approved Combined Sewer Overflow Long Term Control Plan (CSO LTCP) requires a level of control of four (4) CSO overflows per year. To achieve this level of control, the recommended plan was divided into four sub-phases (Phase II-A, II-B, II-C and II-D). As a component of Phase II-C, the City is required to plan, design and construct a 5.2 million gallon (MG) CSO storage facility by CSO 006 in the area near the Pearl River Lift Station by 2024. The CSO Storage Facility at Pearl River Lift Station (PRLS) is needed to store wet weather flow when the Lafayette Wastewater Treatment Plant (WWTP) is operating at maximum treatment capacity, and then drain to the PRLS when the WWTP has capacity, thereby improving the water quality in the Wabash River by reducing the discharge of *E.coli*, solids and floatables in the river due to CSOs.

This project is the first major project in the second half of the CSO LTCP and is the culmination of many prior projects. The City has worked for over a decade to eliminate bottlenecks in the collection system while expanding storage and conveyance capacity to reduce CSOs. This includes the construction of the Pearl River Lift Station elimination of the Parking Lot Lift Station, construction of the CSO Tunnel from the PRLS to the current City Bus Center and the extension of the Tunnel to Cincinnati St. Later the Brown St. Sewer utilized Railroad Relocation infrastructure and connected to the Tunnel further expanding the storage and conveyance capacity. Just this year the 9th St. Storm Water Pump Station went on line, both separating areas in the combined sewer system as well as utilizing Railroad Relocation infrastructure to store and attenuate storm water flow that would otherwise enter the combined system. Furthermore, countless green infrastructure projects have reduced the storm water entering the combined sewer system and the required storage volume. These include everything from a single homeowner installing a rain barrel to the larger projects like the work along North Street and throughout the downtown.

The potential to combine the Phase II-C and Phase II-D projects of the CSO LTCP into a single larger CSO Storage and Treatment Facility at CSO 006 was evaluated. The concept behind this analysis was to place the HRT facility adjacent to the storage facility at CSO 006 as opposed to CSO 009, thus having a single larger project with the hopes of capturing economies of scale and thus reducing the total cost of the remaining CSO LTCP Projects. However, the results of this

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analysis concluded that incorporating HRT with CSO storage at the CSO 006 site would not be cost-competitive. Furthermore, the State disinfection requirements for HRT facilities would essentially create a remote secondary WWTP requiring deliveries, chemical storage, etc. whereas those same disinfection requirements do not exist for the all storage alternative.

Knowing that the project at CSO 006, Pearl River Lift Station, would be storage without any form of HRT a secondary analysis will be performed to confirm the most cost effective type of storage facility. During the design of the recently constructed Greenbush CSO Storage Tank a similar analysis was performed to evaluate constructing a cast-in-place concrete structure versus a post-tension concrete structure. Ultimately a cast-in-place concrete tank was selected. In a similar fashion this scope of work includes an evaluation to compare a cast-in-place concrete tank to the use of large-diameter pipes for in-line CSO storage. Both methods are proven to be effective but have different pros and cons. This analysis will allow Lafayette to select the storage method that best meets the overall needs of the community.

Flow monitoring is currently being conducted to confirm the required storage volume. Twenty-Five (25) flow monitors are installed throughout the City's collection system and the model conversion and recalibration process is underway.

Finally, this mandatory CSO LTCP project will be a driver for redevelopment and new developments for the City. The original LTCP proposed the CSO Storage Facility at PRLS would be located on the north side of PRLS, however this is the only land in that area that is above the 100-Year Floodplain. Therefore, the proposed location of the CSO Storage Facility is shifted to the south and west of PRLS, as shown in Figure 1, to allow for future development along the riverfront. The Wabash River Enhancement Corporation (WREC) and the Wabash Avenue Neighborhood Association (WANA) both have plans for the area, the preliminary layout shown in Figure 1 is an initial effort at building the CSO infrastructure in collaboration and coordination with WREC and WANA so that this site, upon completion of construction, will lay the groundwork for WREC and WANA plans to become reality.

Major project elements are summarized below:

- **Storage Facility** – A storage facility will be installed to collect overflow from the CSO 006 Pearl River and 007 Williams Street Diversion Structures. The storage facility will be preliminarily sized for 5.2 MG of storage. The Pearl River Lift Station electrical room will house electrical and SCADA components.
- **Backflow Prevention** – An improved backflow prevention device will be installed at CSO 009 and the existing backflow prevention maintained at the CSO Storage Facility outfall structure to prevent river water from entering the existing collection system during high river levels.
- **Yard Piping** – Will include modifications to the existing CSO 006 Outfall to facilitate construction while maintaining service without need for temporary flow bypassing and the piping to dewater the CSO Storage Tank.
- **Site Work** – Utility relocation, roads, walks, fencing, grading, and electrical distribution system associated with the above facilities.
- **SCADA** – Control system to monitor and control operations of the screening structure and storage tank.

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- **Community Engagement** – Passive education features will be installed, and the potential to incorporate public art with required ventilation will be evaluated in close coordination with WREC and WANA.

A description of how the infrastructure would function is summarized below:

- During a wet weather event when the pumping capacity (18 MGD) of the existing PRLS is exceeded the existing CSO Storage Tunnel begins to fill. If the wet weather event is sufficiently large to fill the CSO Tunnel the excess wet weather flow discharges through existing Romag Screens in the PRLS Screening Structure and then flows to the Pearl River and ultimately the Wabash River.
- The new PRLS Storage Project will include a new cast-in-place concrete diversion structure (see Fig 1) to capture excess wet weather flow that would have been discharged to the Pearl River and redirects that flow to a storage facility. This new diversion structure will be downstream of the current Romag Screens so no new screening is required. This new diversion structure will include an overflow weir for monitoring CSO activation as well as backflow prevention since the area is prone to flooding. If the wet weather event exceeds the storage volume the water level would continue to rise in the new diversion structure and overflow the new weir, discharging to the Pearl River in nearly the same spot of the current discharge.
- The Williams Street CSO Structure (007) will also direct excess wet weather flow to the storage system. During a wet weather event the liquid level in the Williams Street sewer will begin to rise. The flow in the sewer is restricted by an existing throttle pipe, and when the sewer flow is greater than the maximum flow through the throttle pipe the sewer level rises and if it rises enough flow will overflow the weir in the diversion structure and flow into the storage system. If the storage volume fills the new Williams Street Diversion Structure also contains a higher level overflow weir allowing peak wet weather flow to be discharged to the Wabash River instead of streets and basements in order to protect public health. A non-mechanical self-cleaning screen will be added to the existing Williams St. Regulator Structure to decrease the amount of large debris entering the storage system.
- The storage system will fill with the wet weather flow via gravity. The storage will require ventilation to allow the air displaced by the wet weather flow to safely escape the system as well as access points for cleaning and maintaining the system. It is anticipated that no mechanical cleaning system (flushing gates, tipping buckets, etc.) be installed. The pipe will be cleaned using Renew's existing sewer vacuum truck. The system may include mechanical ventilation and odor control.
- When the wet weather event has passed and the PRLS has pumping capacity the storage can be drained. It is anticipated that a piping connection be installed linking the new diversion structure to the existing PRLS wet well, upstream of the existing grinders, such that the existing lift station dewater the storage volume, and any debris that got past upstream screens would be addressed and the lift station pumps protected. This would prevent the

EXHIBIT A1

construction of a new lift station. It is anticipated that a mechanized gate be installed in the existing wet well to keep the storage from filling or draining when not intended.

If in-pipe storage or a cast-in-place concrete tank were ultimately constructed the functionality would be very similar.

The project will be delivered via the Performance Contracting (Guaranteed Savings Approach) delivery method.

The scope of work includes the following tasks:

1.0 GENERAL DESIGN PHASE

1.1 Progress Meetings.

Conduct up to twelve (12) progress meetings during the design phase with the City and City's Contractor to review technical aspects of the project, project cost, and schedule. Meetings will be used to facilitate decision making on design parameters (material selections, project constraints, etc.) that meet the basis of design requirements, but can also be adjusted to optimize the construction schedule. Prepare and distribute progress meeting notes within five (5) business days of each meeting.

Deliverables associated with this task include:

- Agenda five (5) business days in advance of each progress meeting
- Progress meeting minutes within five (5) business days of each progress meeting.

1.2 Public Meetings

Participate in up to three (3) public meetings during the design phase where City, City's Contractor and Engineer meet with the community to review aspects of the project, project cost, and schedule. Meetings will be used to facilitate decision making on impacts of construction.

Deliverables associated with this task include meeting materials.

1.3 Citizens Advisory Committee Meeting

Prepare meeting agenda and materials and attend Citizens Advisory Committee (CAC) Meetings to support City in advising CAC of LTCP progress. The scope is based upon two (2) public meetings. The project manager and project engineer will attend both meetings, document meeting attendance, and draft meeting notes.

Deliverables associated with this task include agendas and meeting materials to be distributed within five (5) business days before the meeting, and meeting notes distributed within five (5) business days after meeting.

1.4 WREC and WANA Coordination Meetings

Coordinate design work with WREC on current and planned projects near the proposed CSO Storage Tank site. Conduct up to three (3) meetings with each organization during preliminary design as well as to share 30 and 60 percent design documents and coordinate design of any above-ground structures.

Deliverables associated with this task include meeting minutes within five (5) business days of each coordination meeting.

1.5 Utility Coordination Meeting

Conduct up to three (3) utility coordination meetings during the design phase with City, City's Contractor and area utility representatives to review utility conflicts. Distribute plans and agenda five (5) business days in advance of each meeting. Prepare and distribute utility coordination meeting notes within five (5) business days of each meeting.

Deliverables associated with this task include distributing plans and agenda to utility representatives five (5) business days prior to the meeting and meeting notes within five (5) business days of each utility coordination meeting.

1.6 Guaranteed Savings Contract (GSC) Selection Facilitation and Support

Facilitate the selection process of a GSC contractor for this project and provide support to the City as needed.

There are no **deliverables** associated with this task.

2.0 LONG TERM CONTROL PLAN UPDATES

2.1 Long Term Control Plan (LTCP) 5-Year Update.

Every five (5) years, the LTCP must be updated to include the current status of the LTCP and update financial capability analysis. Conduct one (1) meeting with Lafayette Renew to discuss draft report.

Deliverables associated with this task include the 5-Year LTCP Update final report.

2.2 Long Term Control Plan Modification.

Draft letter to submit to the Indiana Dept. of Environmental Management supporting the schedule modification for the PRLS Upgrade portion of Phase II-C of the LTCP. Installation of pumps in the wet weather side of the lift station would not provide value until the new force main is constructed and as such should be moved to Phase II-D.

Deliverables associated with this task letter to IDEM and revised Section 8 of the CSO LTCP documenting the schedule change.

3.0 PRELIMINARY DESIGN

3.1 Right of Entry Agreements.

Provide assistance to the City for the development and execution of right of entry agreements with impacted property City s as required for construction. It is anticipated that one week of engineers' assistance will be provided.

Deliverables associated with this task are assisting in the development of right of entry agreements and provide assistance for the agreements execution.

3.2 Geotechnical Investigation.

Arrange for and provide, through a subcontract, a Geotechnical Investigation for the design and construction of the proposed CSO Storage Facility.

Deliverables associated with this task include a Geotechnical Report.

3.3 Endangered Species Review.

Prepare and submit letter to notify Indiana DNR of project details and requesting that DNR perform an endangered species review.

Deliverables associated with this task include letter to DNR and responses from agency.

3.4 Survey Coordination.

Arrange for and provide, through a subcontract, a topographical survey for the anticipated sewer route (area approximately between Williams Street and Walnut Street along Sycamore Street). The topographic survey will provide 1-foot contour intervals at a scale of 1" = 40'.

Deliverables associated with this task include electronic survey base files.

3.5 Structural Coordination.

Arrange for and provide, through a subcontract, structural engineering services for the design and construction of the proposed CSO Storage Facility and related structures.

Deliverables associated with this task include a memorandum describing proposed Structural improvements and design criteria, described in Section 4.

3.6 Environmental Specialist Coordination.

Arrange for and provide, through a subcontract, environmental specialist services to develop a plan for handling and disposition of contaminated soil and groundwater excavated or pumped from the pit excavated during construction. SUBCONSULTANT will provide environmental design services in support of the Project and develop a Soil and Groundwater Management Plan for the project site,

Deliverables associated with this task include:

- Soil and Groundwater Management Plan (SMP)
- Associated drawings to the Indiana Department of Environmental Management (IDEM) and Indiana Brownfield Program (IBP)
- Design drawings and technical specifications

4.0 BASIS OF DESIGN REPORT

4.1 General and Equipment.

Prepare layouts of both cast-in-place and in-pipe storage alternatives based on final sizing, including preliminary site plan showing grading plan and locations of structures, asphalt roads and concrete walks. Work in coordination with GSC Provider to evaluate total project cost for both alternatives. Base remainder of the Basis of Design Report on the selected alternative.

Prepare general arrangement drawings of in-line CSO Storage Facility including yard piping and valves. Include general arrangement drawings for sewer vacuum truck access for system maintenance.

Review and evaluate alternatives to replace the existing in-channel grinders at the Pearl River Lift Station.

Deliverables associated with this task include preliminary site plan, preliminary plan view drawings and analysis of storage alternatives.

4.2 Hydraulics.

Perform hydraulic evaluations for new project components including: hydraulic effect on below grade in-line pipe storage, screening, sewer grades for gravity sewers and pump hydraulics for dewatering pumps at Pearl River Lift Station. Develop technical memorandum to summarize hydraulic calculations and proposed operation sequence.

Deliverables associated with this task include a memorandum describing how proposed facilities will operate during wet weather.

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4.3 Electrical.

Determine electrical requirements, including the following:

- Evaluate existing electrical service in the area including review of area classifications per NFPA 820
- Power systems at CSO Storage Facility
- Support instrumentation installation with raceways
- Site lighting
- Security switches
- Solar installation evaluation at PRLS

Deliverables associated with this task include a memorandum describing proposed Electrical improvements recommended configuration for powering the project, preliminary one-line diagram, and design criteria.

4.4 Architectural.

Summarize applicable building code requirements and determine architectural design criteria for CSO Storage Facility and associated structures, including the following:

- Storage Ventilation Structure
- Passive Education Feature
- Building Demolition

Deliverables associated with this task include a memorandum describing proposed Architectural improvements and design criteria.

4.5 Structural.

Summarize structural and foundation design criteria for upgrades for the new CSO Diversion Structure that will connect the existing CSO Screening Structure to the in-line CSO Storage Facility. These include the following:

- Construction within the 100-year flood way and proposed means of combating buoyance
- Construction of new cast-in-place structure connecting to and at a lower elevation than the existing structure (underpinning requirements)
- Impact of tank depth to construction cost

Deliverables associated with this task include a memorandum describing proposed Structural improvements and design criteria.

4.6 Mechanical.

Summarize mechanical design criteria for the new facilities including the following:

- Ventilation requirements (cross sectional area, air flow rates) for both the Pearl River Storage and the existing CSO Tunnel
- Required air flow rates for mechanical ventilation of storage

EXHIBIT A1

- Odor control considerations (size, cost, performance, etc.) for three alternatives
 - No system
 - Strobic fan
 - Carbon column

Deliverables associated with this task include a memorandum describing proposed Mechanical improvements and design criteria.

4.7 Instrumentation and Control.

Summarize instrumentation and control requirements, including remote monitoring needs. These include the following:

- Pearl River Lift Station (PRLS) PLC Replacement
- Use the Pearl River Lift Station PLC to control and monitor the CSO Storage Facilities
- Level monitoring for the In-Line Storage Facility
- CSO discharge monitoring and recording at both the Williams St. (007) and Pearl River (006) overflow locations
- Evaluation of Pearl River Lift Station communication with the WWTP SCADA system
- Implementation of a SCADA control strategy for the CSO Storage Tank and Pearl River Lift Station
- Modifications of the HMI application at the Lafayette Renew WWTP for control and monitoring of the PRLS CSO Facilities

Develop wet weather operation strategy for new CSO Storage Facility. Wet weather operational strategy will be outlined in Basis of Design Report and will be presented to the City for review and comment.

Deliverables associated with this task include a memorandum describing proposed I&C improvements and design criteria.

4.8 Yard Piping.

Determine yard piping alignments for overflow piping and dewatering piping. Include preliminary plan and profiles for new underground pipelines. Evaluate piping materials for each unique use. Document plan for connecting the capped Williams Street Sewer into the CSO Storage.

Deliverables associated with this task include a preliminary site plan and material selection.

4.9 Basis of Design Memorandum.

Prepare Basis of Design Memorandum that summarizes facility hydraulics and general operation, site work, facility and equipment arrangement, structural, architectural, mechanical, electrical, and instrumentation and control design criterion.

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Deliverables associated with this task include a Basis of Design Memorandum.

4.10 Sequence of Construction.

Summarize special conditions, the proposed sequence of construction and considerations (constraints) necessary for maintaining the CSO 006 Overflow pipe and existing CSO Diversion Structure in service.

Deliverables associated with this task will be summarized in the Basis of Design Memorandum.

4.11 Opinion of Probable Cost.

Prepare AACE construction cost opinions consisting of Class 4 for Basis of Design Memorandum.

Deliverables associated with this task include construction cost opinion at Basis of Design completion.

5.0 FINAL DESIGN

5.1 Drawings.

Prepare Construction Drawings for use, together with the Construction Specifications, for soliciting a guaranteed maximum (GMAX) price proposal. A preliminary list of drawings is provided. It is anticipated that proposals will be solicited based on the 60 percent design drawings. Final GMAX drawings will be issued prior to commencing construction activity, incorporating 60 percent GMAX comments. Drawings will be updated throughout the construction process such that the Final Construction Drawings issued at project completion will serve as the Record Drawings.

Deliverables associated with this task include 30 percent, 60 percent and Final GMAX Construction Drawings for review, comment and proposal solicitation.

5.2 Specifications.

Prepare Construction Specifications for use, together with the Construction Drawings, for soliciting proposals. Engineers Joint Contract Documents Committee (EJCDC) General Conditions (1996 edition) will be used. Standard Construction Specifications Institute (CSI) 16-Section format will be used. A preliminary list of specifications is provided.

Deliverables associated with this task include 60 percent Construction Specifications for review and comment and Final GMAX Construction Specifications as described above.

5.3 Construction Cost Opinions.

Prepare AACE construction cost opinions consisting of Class 3 for 30 percent documents and Class 2 for 60 percent documents.

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Deliverables associated with this task include construction cost opinions at 30 and 60 percent completion.

5.4 Permitting.

Prepare the following permits in accordance with governing agency guidance. Incorporate agency comments into the contract documents

- Erosion and Sediment Control Plan
- IDEM Facility Construction Permit
- Department of Natural Resources (DNR) Construction in the Floodway Permit
- DNR – Is separate permit needed for work below normal water elevation in stream?
- IDEM Section 401 WQC Regional General Permit
- City Building Demolition Permit
- IDEM Brownfield Permits (excavation and dewatering)

Work shall commence for all permits upon receipt of 60 percent Construction Drawing and Specification comments from City.

Deliverables associated with this task include preparing an approvable permit for each item listed above.

6.0 ASSET MANAGEMENT PHASE II

6.1 Training Workshops

Follow-up sessions from Phase I of the Asset Management Program provided by Greeley and Hansen. At least two (2) training sessions shall be held for WWTP staff at the Lafayette Renew facility with focus on effective use of asset management tools and provide understanding of risk rankings and performance criteria.

Deliverables associated with this task include preparing training materials for all Renew maintenance staff.

6.2 Results Verification Meetings

After Lafayette Renew has implemented the Asset Management Program that was provided as part of Phase I of this work, at least two (2) results verification meetings shall be held to discuss and review Business Risk Exposure (BRE) scores that were generated via use of the asset management tools.

Deliverables associated with this task include preparing meeting agendas and documenting meeting notes.

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6.3 Preventative Maintenance Inspections

As part of Phase II of this work, Greeley and Hansen will accompany key WWTP maintenance personnel on at least two (2) inspection walk-throughs to conduct effective performance criteria ranking that was proposed in the Asset Management Program delivered in Phase I.

Deliverables associated with this task include distribution of performance criteria and ranking guidelines prior to the scheduled maintenance inspection walk-throughs as well as meeting notes to follow on action items.

**Lafayette Renew
CSO Storage Facility at Pearl River Lift Station
Preliminary List of Drawings**

Page	Sheet	Description	30%	60%	90%
General					
1	G1	Index, Legend, Abbreviations and Utility Contacts	X	X	X
2	G2	Location Map and Survey Control	X	X	X
3	G3	General Notes	X	X	X
4	G4	Existing Site Plan	X	X	X
5	G5	Yard Piping Plan	X	X	X
6	G6	Grading Plan		X	X
7	G7	Landscaping Plan		X	X
8	G8	Existing CSO 007 Diversion Structure Demolition Plan and Section	X	X	X
9	G9	Utility Revision Site Plan	X	X	X
10	G10	Process Flow Diagram	X	X	X
11	G11	Hydraulic Profile - CSO Storage and Screening	X	X	X
12	G12	Plan and Profile - In-Line CSO Storage	X	X	X
13	G13	Plan and Profile - In-Line CSO Storage	X	X	X
14	G14	Plan and Profile - In-Line CSO Storage	X	X	X
15	G15	Plan and Profile - In-Line CSO Storage		X	X
16	G16	Plan and Profile - Sewer Relocation Sycamore		X	X
17	G17	Manhole Details - Inline CSO Storage		X	X
18	G18	Manhole Details - Typical		X	X
19	G19	Access for Manholes at New CSO Storage Facility	X	X	X
20	G20	Miscellaneous Details	X	X	X

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Page	Sheet	Description	30%	60%	90%
21	G21	Miscellaneous Details		X	X
22	G22	Miscellaneous Details			X
23	G23	Maintenance of Traffic		X	X
24	G24	Sedimentation and Erosion Control Plan	X	X	X
25	G25	Sedimentation and Erosion Control Plan		X	X
26	G26	Sedimentation and Erosion Control Details		X	X
27	G27	Sedimentation and Erosion Control Details			X
Structural					
28	S1	General Notes	X	X	X
29	S2	New CSO Diversion Structure Plans	X	X	X
30	S3	New CSO Diversion Structure Plans		X	X
31	S4	New CSO Diversion Structure Sections	X	X	X
32	S5	New CSO Diversion Structure Sections	X	X	X
33	S6	New CSO Diversion Structure Sections			X
34	S7	New CSO Diversion Structure Details		X	X
35	S8	New CSO Diversion Structure Details			X
36	S9	Existing CSO 007 Diversion Structure Plan	X	X	X
37	S10	Existing CSO 007 Diversion Structure Section	X	X	X
38	S11	Details - Connection to Existing Pearl River Lift Station		X	X
Architectural					
39	A1	Ventilation Plan at PRLS Storage Facility	X	X	X
40	A2	Ventilation Section at PRLS Storage Facility		X	X
41	A3	Ventilation Plan for Existing CSO Tunnel	X	X	X
42	A4	Ventilation Section for Existing CSO Tunnel		X	X
43	A5	Ventilation Details		X	X
44	A6	Passive Education Components			X
Piping and Equipment					
45	M1	Piping Symbols	X	X	X
46	M2	In-Line Storage Plan at El. XXX	X	X	X
47	M3	In-Line Storage Plan at El. XXX		X	X
48	M4	In-Line Storage Sections	X	X	X

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Page	Sheet	Description	30%	60%	90%
49	M5	In-Line Storage Sections			X
50	M6	New CSO Diversion Structure - Plan		X	X
51	M7	New CSO Diversion Structure - Sections		X	X
52	M8	Pearl River Lift Station Plan EI XXX	X	X	X
53	M9	Pearl River Lift Station Plan EI XXX		X	X
54	M10	Pearl River Lift Station Sections	X	X	X
55	M11	Pearl River Lift Station Sections			X
HVAC					
56	H1	Odor Control - Symbols and Legend	X	X	X
57	H2	Odor Control - Schedules and Details		X	X
58	H3	Odor Control - Airflow Diagram		X	X
59	H4	Odor Control - Plan	X	X	X
60	H5	Odor Control - Sections		X	X
61	H6	HVAC - Plan		X	X
Electrical					
62	E1	Electrical Symbols and Legend	X	X	X
63	E2	New Site Plan	X	X	X
64	E3	Ductbank Section and Details		X	X
65	E4	One Line Diagrams	X	X	X
66	E5	One Line Diagrams	X	X	X
67	E6	Cable and Conduit Schedules		X	X
68	E7	Schematics and Block Diagrams		X	X
69	E8	In-Line Storage Power Plan	X	X	X
70	E9	Pearl River Lift Station Power Plan	X	X	X
71	E10	CSO 007 Diversion Structure Power Plan	X	X	X
72	E11	Sections			X
73	E12	Details			X
Instrumentation and Control					
74	N1	I&C Legend	X	X	X
75	N2	Instrument Installation Details		X	X
76	N3	CSO Diversion Structure P&ID	X	X	X

EXHIBIT A1

Page	Sheet	Description	30%	60%	90%
77	N4	Pearl River Lift Station P&ID	X	X	X
78	N5	CSO Storage Facility and Outfall P&ID	X	X	X
79	N6	Control Panel Layout and Details		X	X

Lafayette Renew
CSO Storage Facility at Pearl River Lift Station
Preliminary List of Specifications

CONDITIONS OF CONTRACT

General Conditions	00700
Supplementary Conditions	00800
Soil and Groundwater Management Plan	Appendix A

TECHNICAL SPECIFICATIONS

DIVISION 1 - GENERAL REQUIREMENTS

Summary of Work	01110
Change Order and Work Order Procedures	01250
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Coordination and Meetings	01310
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Cleaning	01740
Operation and Maintenance Manuals	01783
Contract Close Out	01789
Training	01820

DIVISION 2 - SITEWORK

Bypass Pumping	02150
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EXHIBIT A1

Demolition	02220
Site Clearing	02230
Shoring, Sheeting and Bracing	02251
Earth Excavation	02316
Backfilling	02317
Slope Protection and Erosion Control	02370
Laying and Jointing Buried Pipelines	02500
Reinforced Concrete Sewer Pipe	02502
Buried Ductile-Iron Pipe and Fittings	02505
Buried PVC Pipe and Fittings	02507
Precast Manholes	02509
Disinfection	02512
Yard Hydrants	02514
Leakage Tests	02516
Buried High-Density Polyethylene Pipe and Fittings	02640
High-Density Polyethylene Vertical Structures	02641
Chain Link Fencing and Gates	02820
Sewer Televising	02651
Sewer Cleaning	02760
Paving and Surfacing	02840
Landscaping Work	02900

DIVISION 3 - CONCRETE

Concrete Formwork	03100
Concrete Accessories	03150
Concrete Reinforcement	03200
Cast-In-Place Concrete	03310
Grout	03600

DIVISION 5 - METALS

Galvanizing	05085
Structural Steel	05120

DIVISION 8 -- DOORS AND WINDOWS

Access Hatches	08310
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DIVISION 9 - FINISHES

High Performance Coatings	09960
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EXHIBIT A1

DIVISION 11 - EQUIPMENT

Slide and Sluice Gates 11285

DIVISION 13 - SPECIAL CONSTRUCTION

Process Control System General Requirements 13400
Process Control System Factory Testing 13402
Process Control System Commissioning 13403
Process Control System Training 13404
Process Control System Instruments 13420
Panel Devices and Enclosure Construction 13431
Programmable Logic Control (PLC) Systems 13451
SCADA Hardware and Software 13453
Process Control System Description 13490
Process Control System Input Output List 13491

DIVISION 15 - MECHANICAL

Support and Anchors 15060
Mechanical Identification 15075
Ductile-Iron Pipe and Fittings 15106
Miscellaneous Pipe and Fittings 15108
Erecting and Jointing Interior Piping 15109
Valves 15110
Terminal Heat Transfer Units 15765
Ductwork 15810
Ductwork Accessories 15820
Fans 15830
HVAC Controls 15900
Testing, Adjusting and Balancing 15950

DIVISION 16 - ELECTRICAL

Basic Electrical Material and Methods 16050
Electrical Requirements for Shop Assembled Equipment 16055
Grounding 16060
Electrical Identification 16075
Electrical Testing Requirements 16080
Short Circuit and Coordination Study 16085
Wire and Cables - 600 Volts and Below 16121
Electrical Raceway Systems 16130

EXHIBIT A1

Underground Electrical Distribution System	16132
Wiring Devices	16140
Electric Utility Coordination and Requirements	16210
Electric Motors	16220
Disconnect Switches	16411
Disconnect Circuit Breakers	16413
Contactors	16421
Panelboards	16443
Control Components and Devices	16491
Lighting	16500

EXHIBIT B1

AMENDMENT #1 FOR PROFESSIONAL ENGINEERING SERVICES

between
CITY OF LAFAYETTE
 and
GREELEY AND HANSEN

Level of Effort

Task Description	Estimated Workhours									
	Project Director	Senior Proj Advisor	Project Manager	Senior Engineer	Architect	MEPIC	Project Engineer	Designer / CAD Tech	Word Processing	Totals
1.0 GENERAL DESIGN PHASE										
1.1 Progress Meetings	8	48	96	48	60	40	240	24	24	588
1.2 Public Meetings	0	8	40	40	60	0	80	0	0	228
1.3 CAC Meetings	0	8	16	4	0	0	60	24	12	124
1.4 WREC and WANA Meetings	0	24	48	2	140	0	96	24	12	346
1.5 Utility Coordination Meeting	0	8	24	2	0	4	60	24	0	122
1.6 GSC Selection Facilitation	0	4	16	0	0	0	80	0	8	108
Subtotal - General Design Phase	8	100	240	96	260	44	616	96	56	1516
2.0 LTCP UPDATES										
2.1 LTCP 5 Year Update	0	2	24	8	0	0	80	16	4	134
2.2 LTCP Modification	0	8	16	0	0	0	40	4	0	68
Subtotal - LTCP Updates	0	10	40	8	0	0	120	20	4	202
3.0 PRELIMINARY DESIGN										
3.1 Right of Entry Agreements	0	0	8	0	0	0	40	16	4	68
3.2 Geotechnical Investigation	0	2	16	2	0	0	40	0	0	60
3.3 Endangered Species Review	0	0	8	0	0	0	16	0	0	24
3.4 Survey Coordination	0	0	4	0	0	0	16	4	0	24
3.5 Structural Coordination	0	8	16	4	0	0	60	0	0	88
3.6 Environmental Specialist Coordination	0	4	24	4	0	0	80	8	0	120
Subtotal - Preliminary Design	0	14	76	10	0	0	252	28	4	384
4.0 BASIS OF DESIGN REPORT										
4.1 General and Equipment	0	4	24	8	0	0	60	40	4	140
4.2 Hydraulics	0	4	24	4	0	0	60	16	0	108
4.3 Electrical	0	2	8	0	0	80	8	0	0	98
4.4 Architectural	0	2	8	0	80	0	8	0	0	98
4.5 Structural	0	2	8	0	8	0	8	0	0	26
4.6 Mechanical	0	2	8	0	8	80	8	0	0	106
4.7 Instrumentation and Control	0	2	8	0	0	80	8	0	0	98
4.8 Yard Piping	0	4	24	4	0	0	60	40	0	132
4.9 Basis of Design Memorandum	4	16	40	8	40	80	80	40	24	332
4.10 Sequence of Construction	0	4	20	4	8	16	40	8	0	100
4.11 Opinion of Probable Cost	0	2	16	4	30	60	30	0	0	142
Subtotal - Basis of Design Report	4	44	188	32	174	396	370	144	28	1380
5.0 FINAL DESIGN										
5.1 Drawings	4	80	280	60	220	600	500	600	0	2,344
5.2 Specifications	2	20	40	20	80	220	120	0	40	542
5.3 Construction Cost Opinions	0	4	8	12	40	80	40	0	0	184
5.4 Permitting	0	8	60	4	16	0	120	40	20	268
Subtotal - Final Design	6	112	388	96	356	900	780	640	60	3338
6.0 ASSET MANAGEMENT PHASE II										
6.1 Training Workshops for Renew Staff	0	0	12	0	0	0	20	0	4	36
6.2 BRE Score Results Verification Meetings	0	0	24	0	0	0	36	0	0	60
6.3 Preventative Maintenance Inspections	0	0	18	0	0	0	24	0	0	42
Subtotal - Asset Management Phase II	0	0	54	0	0	0	80	0	4	138
Totals										

EXHIBIT B1

AMENDMENT #1 FOR PROFESSIONAL ENGINEERING SERVICES

between
CITY OF LAFAYETTE
and
GREELEY AND HANSEN

Estimated Compensation

	Hours	Hourly Rates	Cost
1. Greeley and Hansen Labor:			
a. Project Director	18	\$280	\$5,040
b. Senior Project Advisor	280	\$165	\$46,200
c. Project Manager	986	\$195	\$192,270
d. Senior Engineer	242	\$175	\$42,350
e. MEPICA	2130	\$180	\$383,400
f. Project Engineer	2218	\$125	\$277,250
g. Designers/CAD Technicians	928	\$105	\$97,440
h. Word Processing	156	\$65	\$10,140
Subtotal	6,958		\$1,054,090
2. Subconsultant Costs			
a. Structural Services - Fink Roberts Petrie		\$40,500	
b. Survey Services - Territorial Engineering		\$11,000	
c. Geotechnical Services - ATC		\$60,000	
d. Soil Contamination Study Services - IWM		\$30,000	
Total		\$141,500	
3. Subconsultant Costs with 1.10 Multiplier			\$155,650
4. Other Direct Costs			
a. Local Travel ⁽¹⁾	8,600 Miles @	\$0.58 / mile	\$4,945
b. Reproduction/Mailing			\$955
Subtotal			\$5,900
5. Total Compensation			\$1,215,640

⁽¹⁾ Based on 50 trips (30 from Indianapolis at 120 miles and 20 from Chicago at 250 miles)

**CSO Storage Facility at Pearl River Lift Station
Major Milestones Design Schedule
Exhibit C1**

Milestone	Date
Design NTP	Tuesday, June 16, 2020
Kick-Off Meeting	Tuesday, July 7, 2020
GMAX Provider Selection Assistance	August 2020
Submit IDEM 5-Year LTCP Update	Friday, August 7, 2020
Design Progress Meeting #1	Thursday, August 13, 2020
Meeting No. 1 with WREC, WANA	September 2020
Design Progress Meeting #2	Thursday, September 17, 2020
Basis of Design Report (BODR) Submittal	Thursday, September 24, 2020
Basis of Design Report (BODR) Review Meeting (Mtg #3)	Thursday, October 8, 2020
Renew and GSC Provider issue BODR Comments	Thursday, October 15, 2020
30% Design Phase Submittal	Thursday, November 5, 2020
30% Design Phase Submittal Review Meeting (Mtg #4)	Thursday, November 19, 2020
Renew and GSC Provider issue 30% Comments	Tuesday, December 1, 2020
Begin Permit Application Process	November 2020
Design Progress Meeting #5	Wednesday, December 9, 2020
Utility Coordination Meeting No. 1	December 2020
Citizens Advisory Committee Meeting	December 2020
Submittal for DNR Construction in a Floodway Permit	Thursday, December 17, 2020
Design Progress Meeting #6	Thursday, January 14, 2021
Meeting No. 2 with WREC, WANA	January 2021
Design Progress Meeting #7	Thursday, February 11, 2021
Design Progress Meeting #8	Thursday, March 11, 2021
Utility Coordination Meeting No. 2	March 2021
60% Design Phase Submittal	Thursday, March 25, 2021
GMAX Proposal Development Begins	Thursday, March 25, 2021
All Other Permits Submitted (IDEM, ACE, Local/County)	Thursday, March 25, 2021
60% Design Review Meeting (Mtg #9)	Thursday, April 8, 2021
Renew and GSC Provider issue 60% Comments	Thursday, April 15, 2021
GMAX Pricing Submittal and Design Progress Meeting #10	Thursday, May 6, 2021
Meeting No. 3 with WREC, WANA	May 2021
90% Design Final GMAX Submittal (For Construction)	Thursday, June 3, 2021
90% Design Review Meeting / Pre-Construction Meeting (Mtg #11)	Thursday, June 17, 2021
Contractor NTP	Thursday, July 1, 2021

**Contractor will attend all progress and design review meetings*