



## Memorandum

To: Honorable Mayor and Members of the City Council  
CC: Members of Administration and Public Works Committee  
From: Paul Moyano, Senior Project Manager  
CC: Edgar Cano, Public Works Agency Director; Lara Biggs, Capital Planning & Engineering Bureau Chief / City Engineer  
Subject: Approval of Change Order No. 1 to the Agreement with Greeley and Hansen LLC for Water Plant 4160 V Electrical System Reliability Project (RFP 22-30)  
Date: April 24, 2023

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Recommended Action:

Staff recommends the City Council authorize the City Manager to execute Change Order No. 1 to the agreement with Greeley and Hansen LLC (100 South Wacker Drive, Suite 1400, Chicago, IL 60606) for the Water Plant 4160V Electrical System Reliability Project (RFP 22-30) in the amount of \$298,611. This will increase the overall contract amount from \$597,280.00 to \$895,891.

Funding Source:

Funding for this project is from the Water Fund (Account No. 513.71.7330.62145 – 722002), which has an FY 2022 and 2023 budget of \$850,000 committed to this project. The remaining budget is available from anticipated savings of other projects, namely the Lead Paint Removal and Repainting Plan.

City staff intends to pursue a low interest loan from the Illinois Environmental Protection Agency (IEPA) State Revolving Fund (SRF). The loan is only issued after the design is complete and a contractor has been selected. If the City is successful in obtaining the loan, eligible engineering and construction costs would be funded by the loan.

CARP:

Municipal Operations, Renewable Energy, Emergency Preparedness & Management

Council Action:

For Action

Summary:

On September 12, 2022, the City Council approved a contract for consulting services for the Water Plant 4160V Electrical System Reliability Project (RFP 22-30) with Greeley and Hansen LLC (100 South Wacker Drive, Suite 1400, Chicago, IL 60606). The scope of work includes the design of replacement generators and medium voltage (4160V) switchgear, development of rooms for the new equipment, electrical distribution improvements, SCADA integration, and arc flash update.

Design is proceeding. Through a series of workshops with City Staff, site inspections, and analysis, Greeley and Hansen completed the Preliminary Design, defining the requirements for the installation of two new 4160V generators, replacement of existing 4160V switchgear, development of new space for the new systems, general improvements to the electrical distribution system, and integration of the new systems into SCADA.

Analysis:

During in-depth evaluations of the electrical systems at the water plant, Greeley and Hansen identified a number of improvements in addition to those in the original RFP, that would make the most of the work already being completed to efficiently provide a greater level of long-term reliability to the water plant. Of the improvements identified by the consultant, staff carefully considered the recommendations and selected the most critical improvements that best took advantage of the work already being completed under the existing scope of work. Some of the items that were excluded from the scope of work and will be incorporated into future projects include improvements to the High Lift Pump Station electrical system, and improvements to the water plant's solar array. The remaining items fall into two categories; Low Voltage Switchgear, and 2nd Floor Building Expansion.

Low Voltage Switchgear: Two primary low voltage (480V) switchgear are located in the same space as the existing 4160V switchgear that is to be replaced. Inspection of this switchgear revealed that it is marginally sized for current loads as the water plant's needs have increased over time. The switchgear is more than 20 years old, lacking modern safety and monitoring equipment, and does not reflect current design standards for reliability. Replacing the switchgear as part of this project will allow the design of the new system to be integrated with the medium voltage (4160V) system, providing improved safety, management, and reliability of the system. The layout of the proposed system will provide new flexibility for future anticipated uses, including electric vehicles, and photovoltaic systems. A number of reliability improvements throughout the water plant will also be included with the low voltage design, including replacing panels and transformers that are beyond their useful life, along with aged cables connecting these components. Another improvement will allow for a trailer-mounted diesel generator to be connected to the water plant (into both the low and medium voltage switchgear), providing for an additional level of redundancy to the power supply.

Designing the improvements of the Low Voltage System in conjunction with the Medium Voltage System provides synergies between both system and efficiencies in terms of system design and construction.

2nd Floor Building Expansion: The extent of the work being completed under the Electrical System Reliability requires that additional space be built at the water plant to accommodate new equipment meeting current safety and operation standards. While some existing space can be reused, new space is required for two generators and medium voltage switchgear.

However, the water plant is land-locked and any type of building expansion within the current footprint is extremely challenging. Greeley and Hansen performed a thorough evaluation of potential locations for the new space on the water plant campus, and concluded that the equipment can be best accommodated within an existing garage space that is adjacent to the existing equipment that is being replaced, utilizing the first floor and building a second floor within the garage to claim 'air space' that was previously unused. To make up for the loss of garage space, the garage could be extended east, as shown on Figure 1.

During preliminary design of the new electrical space, staff identified additional space needs for water plant operations, including office space for existing staff needed after the reconfiguration of work space during covid, locker room space to accommodate the newly-hired workforce development crew dedicated to lead service line replacement, security needs, and new employees from open and future requisitions. Staff saw the opportunity to build upon the expansion required to support the electrical work to efficiently build additional needed personnel space at the water plant, identified as 2nd Floor Building Expansion on Figure 2. Working within the existing water plant site presents significant challenges that are best addressed in a single effort, such as engineering the reuse of existing structures and coordination during construction. Fully building out all the available space at once is more efficient than returning to build additional space at a later time. The work to be added to this project is the minimum structural work needed to develop the new space. Staff plans to issue a separate design RFP and construction contract to address the architectural buildout of the building expansion once the electrical project nears completion.

The cost of additional services for the tasks described above are summarized in the table below. Further justification of the work, a full scope of services, and more detailed breakdown of costs are provided on the letter from Greeley and Hansen dated April 12, 2023 attached to the Change Order.

Task	Cost
Low Voltage Switchgear	\$144,983
2nd Floor Building Expansion	\$153,628
Total	\$298,611

Legislative History:

On September 12, 2022, the City Council approved a contract for the Water Plant 4160V Electrical System Reliability Project (RFP 22-30) with Greeley and Hansen LLC.

Attachments:

[Figures](#)

[Change Order Form and Proposal](#)

# FIGURES

Figure 1 – Location of Garage Expansion for Electrical Project

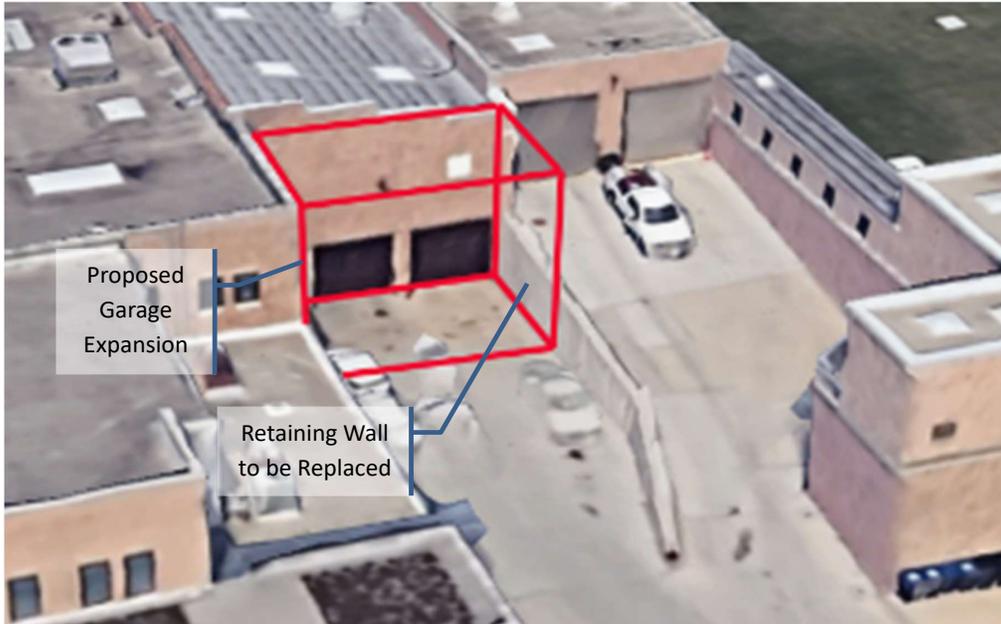
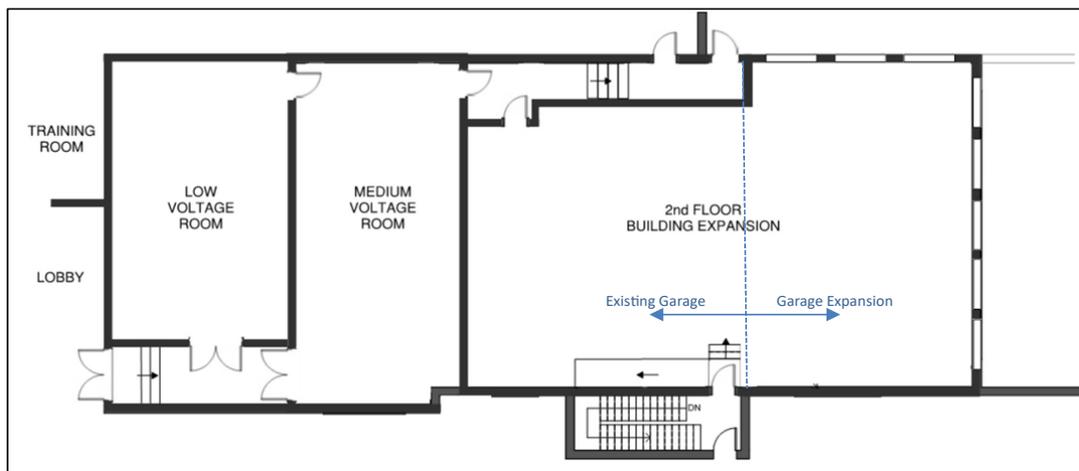


Figure 2 – 2<sup>nd</sup> Floor Expansion



**CITY OF EVANSTON  
CHANGE ORDER**

**Order No.** 001

**Date:** April 24, 2023

**Agreement Date:** September 23, 2022

**PROJECT:** Water Plant 4160 V Electrical System Reliability Project (RFP 22-30)  
**OWNER:** City of Evanston  
**CONTRACTOR:** Greeley and Hansen LLC

The following changes are hereby made to the **AGREEMENT**:

Additional services for the design of low voltage (480V) electrical switchgear and 2<sup>nd</sup> floor building expansion, as described in the attached letter from Greeley and Hansen dated April 12, 2023.

Original <b>CONTRACT PRICE</b> :	\$	<u>597,280.00</u>
Current <b>CONTRACT PRICE</b> adjusted by previous <b>CHANGE ORDERS</b>	\$	<u>597,280.00</u>
Total change in <b>CONTRACT PRICE</b> for this <b>CHANGE ORDER</b> <u>001</u>	\$	<u>298,661.00</u>
The <b>CONTRACT PRICE</b> including this <b>CHANGE ORDER</b> will be	\$	<u>895,891.00</u>

Original <b>COMPLETION DATE</b>	<u>November 22, 2023</u>
Current <b>COMPLETION DATE</b> adjusted by previous <b>CHANGE ORDERS</b>	<u>November 22, 2023</u>
Total Change in <b>CONTRACT TIME</b> for this <b>CHANGE ORDER</b>	<u>None</u>
The <b>COMPLETION DATE</b> including this <b>CHANGE ORDER</b> will be	<u>November 22, 2023</u>

Accepted by (Contractor):		<u>4/14/2023</u>
	_____ Greeley and Hansen LLC	_____ Date

Approved by (Owner):	_____	_____
	City of Evanston	Date



**GREELEY AND HANSEN**

100 S. Wacker Drive, Suite 1400  
Chicago, Illinois 60606  
p 312 558 9000  
f 312 558 1986  
www.greeley-hansen.com

April 12, 2023

Mr. Paul Moyano, P.E.  
Senior Project Manager - Water and Sewer  
Public Works Agency | Capital Planning & Engineering Bureau  
City of Evanston  
2100 Ridge Avenue  
Evanston, IL 60201

Subject: Change Order No. 1 to Contract 22-30: Water Plant 4160V Electrical System Reliability Project

Mr. Moyano,

Thank you for the opportunity to submit our proposal for Change Order No. 1 to Contract 22-30: Water Plant 4160V Electrical System Reliability Project. This Change Order is for additional engineering services to support additional project scope recommended by Greeley and Hansen during the Preliminary Design services regarding Additional Low Voltage Electrical Improvements and Garage 4 Second Floor Expansion Improvements. The additional engineering services fee required to accommodate this additional project scope is \$298,611, as detailed in Attachment B – Change Order No. 1 Level of Effort and Fee Table.

**Change Order No. 1 Scope of Services:**

- 1) Proposed Scope Addition: Additional Low Voltage Electrical Improvements

Scope: Replacement, relocation, consolidation, and reconfiguration of the two (2) low voltage switchgears located in the Filter Building Transformer Room into one (1) new low voltage switchgear; Electrical provisions for the City's Electric Vehicle (EV) Program including additional switchgear breakers and capacity, conduit and conductors, routing and siting, and two (2) new EV charging stations; Electrical provisions for the City's Solar and Renewable Energy Program including additional switchgear breakers and capacity; Electrical provisions for two (2) new Temporary Generator Connection Points including additional switchgear breakers, conduit and conductors, routing and siting, and two (2) new Generator Connection Enclosures, one low voltage and one medium voltage; Replacement, relocation, and refeeding of four (4) additional power distribution panels within the Water Plant; and, Refeeding of three (3) additional power distribution panels within the Water Plant.

Justification: During the Preliminary Design services, Greeley and Hansen recommended that the two (2) low voltage switchgears to remain in the Transformer Room should be replaced, relocated, consolidated, and reconfigured into one (1) new single Main-Tie-Tie-Main low voltage switchgear. It was identified that existing two (2) low voltage switchgears were not rated for the appropriate electrical capacities or system configuration to optimally interface with the new Main-Tie-Tie-Main medium voltage switchgear and standby generator design to increase electrical reliability, redundancy, flexibility, and safety. The current project scope includes the replacement of the three (3) medium voltage power distribution transformers that are physically connected to and feed the two (2) low voltage switchgears. Additional support for the consolidation and reconfiguration of the two (2) low voltage switchgears are the new electrical requirements including additional switchgear breakers and cubicle space to provide the appropriate functionality, safety, and capacity to connect

the current and future EV Program and the future Solar and Renewable Energy Program electrical infrastructure. Greeley and Hansen recommended the implementation of two (2) new Temporary Generator Connection Points, one low voltage and one medium voltage, to provide permanent emergency provisions for the quick-connection of a mobile diesel power standby generator at either low voltage or medium voltage in the event of regular maintenance or failure of one of the new permanent standby generators. As part of the addition of the new low voltage Temporary Generator Connection Point, it was identified that a new medium voltage Temporary Generator Connection Point should be included. The current project scope includes the replacement and refeeding of numerous power distribution panels within the Water Plant, and during Preliminary Design services Greeley and Hansen recommended the replacement, relocation, and refeeding of four (4) additional power panels and the refeeding of three (3) additional power panels to improve the electrical system reliability. Greeley and Hansen recommends the Additional Low Voltage Electrical Improvements be included in the project scope based on the following reasons:

- A. The Evanston Water Plant Staff and Greeley and Hansen agree that the two (2) low voltage switchgears are not the optimal long-term configuration for electrical capacity, reliability, safety, and operation to support the additional low voltage needs for EV, Solar, and Temporary Generator Connection Points. A new single low voltage switchgear can be configured for a more redundant Main-Tie-Tie-Main configuration requiring only two (2) new transformers without requiring an integrated configuration, properly rated bus for current and future improvements, improved electrical safety, and better space allocation in the new Low Voltage Electrical Room for future electrical system improvements and expansion.
- B. These Additional Low Voltage Electrical Improvements will allow the Water Plant cost efficiencies in these improvements as the construction sequencing, temporary power means, space claim, and future operational impacts are reduced and simplified. Additionally, the Contractor will already be mobilized for the electrical and facility improvements in this project area and will have more flexibility organizing and sequencing their work.
- C. The Evanston Water Plant Staff and Greeley and Hansen agree that the current electrical reliability project provides the best opportunity to the Water Plant to incorporate additional functionality and capacity to the medium voltage, low voltage, and standby generator systems needed to support the City's Electrical Vehicle (EV) Program, Solar and Renewable Energy Program, new Temporary Generator Connection Points, and refeeding and replacing of additional power distribution panels.
- D. The additional of the Temporary Generator Connection Points will allow for the use of a temporary trailer mounted diesel powered standby generator that can be used for redundant standby power during maintenance or failure of a natural gas powered standby generator.
- E. The base scope medium voltage switchgear, standby generators, power panels, and other electrical improvements are being replaced based on their service life, and the additional two (2) low voltage switchgear of over 20 and 50 years of service life and the additional vintage power distribution panel to be replaced, relocation and refeed will increase Water Plant electrical reliability, safety, functionality, redundancy, and consistency for operations and maintenance.
- F. No impact to overall project schedule is anticipated due to this additional scope.

2) Proposed Scope Addition: Garage 4 Second Floor Expansion Improvements

Scope: Additional expansion of the new second floor improvements for the entire footprint of Garage 4 and associated building expansion.

Justification: During the Preliminary Design services, Greeley and Hansen recommended the additional expansion of the Garage 4 Second Floor beyond the new second floor portion required for the new Medium Voltage Electrical Room. This additional expansion would provide cost effective additional workspace for the Water Plant as the current project scope includes a new

partial second floor expansion within Garage 4, adjacent to the transformer Room, for the new Medium Voltage Electrical Room to house the new medium voltage switchgear. Additionally, the design requirements of the current project scope require the replacement of any Water Plant existing workspace that is impacted by the Electrical Reliability Project with new workspace equal to or greater in quantity and usefulness within the Water Plant. Greeley and Hansen recommended that that expansion of the new second floor design should be expanded for the entire footprint of Garage 4 and associated building expansion to provide the new replacement workspace in greater quantity and usefulness than the workspace impacted by the new Generator Room on the first floor of Garage 4. Additionally, Greeley and Hansen recommends that the two-story building expansion would include the replacement of the Garage 4 east exterior shear wall with new structural steel framing to improve the building strength, workspace layout and workflow, and mitigate future costly building maintenance to the vintage wall that would be surrounded by new construction. The current project scope currently does not include the Garage 4 Second Floor Expansion Improvements. It is recommended that the Garage 4 Second Floor Expansion Improvements be included in the project scope based on the following reasons:

- A. The Evanston Water Plant Staff and Greeley and Hansen agree that the Garage 4 Second Floor Expansion Improvements support the Water Department's project design requirement to replace any Water Plant existing workspace impacted by the Electrical Reliability Project with new workspace equal to or greater in quantity and usefulness in the Water Plant.
- B. The additional expansion of the second floor improves egress paths and operator access to the Transformer Room (new Low Voltage Electrical Room), new Medium Voltage Electrical Room, new Generator Room, and new Garage 4 building expansion.
- C. The addition of the Garage 4 Second Floor Expansion Improvements will allow the Evanston Water Department cost efficiencies in these improvements as the second floor expansion is a continuation of the new second floor portion required for the new Medium Voltage Electrical Room. Additionally, the Contractor will already be mobilized for the electrical and facility improvements in this project area and will have more flexibility organizing and sequencing their work.
- D. The replacement of the Garage 4 east exterior shear wall with new structural steel framing to improve the building strength, workspace layout and workflow, and to mitigate future costly maintenance of the vintage masonry wall with limited future access.
- E. No impact to overall project schedule is anticipated due to this additional scope.

**Change Order No. 1 Scope of Services:**

The Contract 22-30 Scope of Services is structured in five (5) project tasks, as follows, and is detailed in Attachment B – Contract 22-30 Scope of Services.

- Task 1 Preliminary Design
- Task 2 Detailed Design
- Task 3 IEPA SRF Loan Support
- Task 4 Bidding
- Task 5 Project Management

Change Order No. 1 includes additional levels of efforts for Task 2 Detailed Design and Task 4 Bidding for the additional engineering services required. These additional levels of efforts follow the tasks outlined in Attachment C: Contract 22-30 Scope of Services with no task or sub-task additions or subtractions. See breakdown of the task level of effort in Attachment A – Change Order No. 1 Level of Effort and Fee Table.

**Assumptions:**

- Change Order No. 1 Scope of Work project tasks and sub-tasks will be performed in a similar

- propositional manner for professional services with each new scope item as compared to the existing project scope items within the Scope of Services.
- The additional professional services corresponding disciplines, staff, and level of effort are detailed Attachment B: Level of Effort and Fee Table
  - Change Order No. 1 Scope of Work will have no new deliverables.
  - Change Order No. 1 Scope of Work will amend the existing Scope of Work deliverables to accommodate these additional scope items.
  - Amended deliverables include:
    - Preliminary Design Report
    - Preliminary Design Opinion of Probable Construction Cost
    - 60% Design Contract Documents
    - 90% Design Contract Documents
    - 100% Design Contract Documents
    - Bid Set Contract Documents
    - Opinion of Probable Construction Cost (OPCC)
  - Change Order No.1 is estimated to require twenty (20) new drawings and five (5) new specification sections.
  - The design location of the two (2) new Temporary Generator Connection Points will be located within or in close proximity (within 100 feet) of Garage 4 and its associated building expansion.
  - The design location of the two (2) new EV Charging Stations will be located within or in close proximity (within 100 feet) of Garage 4 and its associated building expansion.
  - The Garage 4 Second Floor Expansion Improvements will be limited to the design of the structure, roof, exterior finishes, and minimum interior finishes such as exterior wall covering, paint, lighting, heat and ventilation to meet the minimum code compliance for general workspace. The second floor workspace programming and build-out will be performed under a separate contract. See proposed layout in Attachment C – Proposed Layout for Garage 4 Second Floor Expansion Improvements

**Change Order No. 1 Attachments:**

- 1) Attachment A – Change Order No. 1 Level of Effort and Fee Table
- 2) Attachment B – Contract 22-30 Scope of Services
- 3) Attachment C – Proposed Layout for Garage 4 Second Floor Expansion Improvements

Thank you for the opportunity to submit our proposal for Change Order No. 1 to the Contract 22-30: Water Plant 4160V Electrical System Reliability Project. The Greeley and Hansen Team is ready to execute these additional engineering services in conjunction with our ongoing professional services to deliver this project successfully and to your expectations. Should you have any questions regarding this proposal, please contact me at (312) 507-9647 or [bgoldman@greeley-hansen.com](mailto:bgoldman@greeley-hansen.com).

Yours very truly,

Greeley and Hansen LLC



Brian R. Goldman, P.E., BCEE, ENV SP  
Vice President

Cc: Michael Monte, Project Manager

**Attachment A - Change Order No. 1 Level of Effort and Fee Table  
(Page 1 of 2)**

Greeley and Hansen - Date: April 12, 2023

Change Order No. 1 Level of Effort and Fee Table - Contract 22-30 Water Plant 4160V Electrical System Reliability Project

Item Description	Project Manager:	Project Director:	Technical Advisor:	Sr. Electrical Engineer:	Electrical Engineer:	Electrical Engineer:		Architect:	Sr. Mech Engineer:	Mechanical Engineer:	Mechanical Designer:
	Michael Monte	Brian Goldman	Norbert Viranyi	Ted Kloba	Dwayne Allen	Lorenz Cagbubanua	Sr. Architect: Sergio Sierra	Jonathan Walters	Michael Debnar	Wei Qian	Mark Spigarelli
	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
Direct Labor Rate	\$75.90	\$102.58	\$87.18	\$78.48	\$56.01	\$38.48	\$66.68	\$45.14	\$77.33	\$62.71	\$57.48
Salary Cost Multiplier	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	2.61	2.61
Billing Rate	\$239.09	\$323.13	\$274.62	\$247.21	\$176.45	\$121.21	\$210.04	\$142.19	\$243.60	\$163.67	\$150.02
<b>Tasks</b>											
<b>Task 2 - Detailed Design (3/2022 - 8/2023)</b>	<b>78</b>	<b>28</b>	<b>14</b>	<b>118</b>	<b>80</b>	<b>232</b>	<b>138</b>	<b>362</b>	<b>4</b>	<b>84</b>	<b>108</b>
Additional Low Voltage Improvements	54	18	10	110	80	216	40	80		40	54
Garage 4 Second Floor Expansion Improvements	24	10	4	8		16	98	282	4	44	54
<b>Task 4 - Bidding (8/2023 - 10/2023)</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>4</b>
Review Contractor Questions and Prepare Addenda	2	1		1	4	6	2	4		2	4
<b>Total Labor</b>	<b>80</b>	<b>29</b>	<b>14</b>	<b>119</b>	<b>84</b>	<b>238</b>	<b>140</b>	<b>366</b>	<b>4</b>	<b>86</b>	<b>112</b>

Other Costs	
Direct Reimbursible Expenses	\$ -
Subcontractor 1 - Geotech and Boring	\$ -
Subcontractor 2 - Survey	\$ -
Subcontractor 2 - Environmental	\$ -
Fees and Overhead Costs	\$ 298,611
<b>TOTAL NOT-TO-EXCEED COST</b>	<b>\$ 298,611</b>

**Attachment A - Change Order No. 1 Level of Effort and Fee Table  
(Page 2 of 2)**

Greeley and Hansen - Date: April 12, 2023  
Change Order No. 1 Level of Effort and Fee Table - Contract 22-301

Item Description	I&C Engineer: Dan Romza	I&C Engineer: Jin Lee	I&C Designer: Paul Dackerman	Structural Engineer: Eduardo DeSantiago	Structural Designer: Billy Papadopoulos	Civil Engineer: Ted Bluver	CAD Designer: Rob Mason	Admin: Rochel Reid	Total Labor Hours					
	2023	2023	2023	2023	2023	2023	2023	2023		Total Labor Cost	GH Labor	CCJM Labor	Primera Labor	Total
Direct Labor Rate	\$86.40	\$62.11	\$52.79	\$87.50	\$46.64	\$59.74	\$61.54	\$44.05						
Salary Cost Multiplier	3.15	2.61	2.61	2.6	2.6	3.15	3.15	3.15						
Billing Rate	\$272.17	\$162.10	\$137.78	\$227.50	\$121.26	\$188.17	\$193.85	\$138.77						
<b>Tasks</b>														
<b>Task 2 - Detailed Design (3/2022 - 8/2023)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>389</b>	<b>0</b>	<b>82</b>	<b>0</b>	<b>1791</b>	<b>\$ 294,235</b>	<b>\$ 200,278</b>	<b>\$ 29,951</b>	<b>\$ 64,007</b>	<b>\$ 294,235</b>
Additional Low Voltage Improvements				6	31		74			\$ 142,858	\$ 123,086	\$ 14,648	\$ 5,124	
Garage 4 Second Floor Expansion Improvements				68	358		8			\$ 151,377	\$ 77,192	\$ 15,303	\$ 58,883	
<b>Task 4 - Bidding (8/2023 - 10/2023)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>27</b>	<b>\$ 4,375</b>	<b>\$ 3,448</b>	<b>\$ 927</b>	<b>\$ -</b>	<b>\$ 4,375</b>
Review Contractor Questions and Prepare Addenda								1		\$ 4,375	\$ 3,448	\$ 927	\$ -	
<b>Total Labor</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>389</b>	<b>0</b>	<b>82</b>	<b>1</b>	<b>1818</b>	<b>\$ 298,611</b>	<b>\$ 203,725</b>	<b>\$ 30,878</b>	<b>\$ 64,007</b>	<b>\$ 298,611</b>

Other Costs	
Direct Reimbursible Expenses	\$ -
Subcontractor 1 - Geotech and Boring	\$ -
Subcontractor 2 - Survey	\$ -
Subcontractor 2 - Environmental	\$ -
Fees and Overhead Costs	\$ 298,611
<b>TOTAL NOT-TO-EXCEED COST</b>	<b>\$ 298,611</b>

\$ 203,725	= GH	68%
\$ 30,878	= CCJM	10%
\$ 64,007	= Primera	21%
<b>\$ 298,611</b>	<b>Total</b>	<b>100%</b>

## Attachment B - Contract 22-30 Scope of Services

### **2.0 SCOPE OF SERVICES**

The Consultant shall perform the following tasks as a baseline scope of work to address the items presented in Section 1. The Consultant may propose alternate or additional tasks that are considered necessary for the successful completion of the work, which must include an estimated impact to the cost of the baseline scope of work.

#### **Task 1 Preliminary Design**

The Consultant will prepare the Preliminary Design based on available record drawings, reports and field investigations as needed.

- 1.1 Lead a project kickoff meeting with City staff at the Evanston Water Plant to understand the desired functionality of the design and review project contacts, scope of work, schedule, and available data.
- 1.2 Lead additional workshops as needed to further define new system requirements and levels of redundancy desired by City staff, considering all of the plant power systems.
- 1.3 Review available diagrams, reports, drawings, and specifications to gather information on the facilities to be designed and evaluated.
- 1.4 Develop a preliminary schedule of the project through commissioning, including procurement and timing for field investigations and shutdowns of major water plant components.
- 1.5 Identify relevant Envision best practices to incorporate into the planning, design, and construction.
- 1.6 Perform any survey, structural evaluation, geotechnical investigation, and other studies of the water plant as needed to support design of new electrical space, electrical modifications, and associated elements.
- 1.7 Provide a draft Preliminary Design Report to the City for review that addresses, at a minimum, each of the Key Issues listed in Section 1.3 and includes 30% design drawings. Submit the draft report electronically in Adobe Portable Document Format (PDF) and two hard copies.

- 1.8 Attend one meeting at the Evanston Water Plant to present findings, discuss and confirm decision points, and review the City's comments on the draft report.
- 1.9 Complete the Preliminary Design Report and submit three hard copies and one electronic copy in Adobe Portable Document Format (PDF) to the City.
- 1.10 Develop AACE Class 4 OPCC based on the preliminary design.

## **Task 2 Detailed Design**

The Consultant will develop a detailed design based on the approved Preliminary Design Report that addresses, at a minimum, each of the Project Objectives listed in Section 1.2.

- 2.1 Coordinate with Evanston staff to finalize selection of equipment manufacturers and materials.
- 2.2 Communicate project scheduling and constructability issues to the City as they are discovered throughout the detailed design process.
- 2.3 Develop 60% design drawings and contract specifications.
- 2.4 Include provisions in the contract documents for maintenance of existing switchgear at the Water Plant SSP and NSP. Maintenance services will be provided during construction.
- 2.5 Submit three hard-copy sets of 60% drawings and specifications, with and a complete electronic set in Adobe PDF format for review by the City.
- 2.6 Meet with City Staff at the Evanston Water Plant to review comments on the 60% drawings and specifications.
- 2.7 Revise plans and contract documents as necessary to incorporate comments from the City.
- 2.8 Develop 90% design drawings and contract documents. The contract documents shall incorporate the City's bidding documents, IEPA SRF Loan requirements, general conditions, supplemental conditions, specifications, and appropriate appendices. Prepare contract documents in Microsoft Word format.
- 2.9 Submit three hard-copy sets of 90% drawings and contract documents, and a complete electronic set in Adobe PDF format for review by the City.
- 2.10 Prepare an AACE Class 2 Opinion of Probable Cost based on the 90% design drawings and contract documents.
- 2.11 Meet with City Staff at the Evanston Water Plant to review comments on the 90% drawings, specifications, and OPCC.
- 2.12 Revise drawings and contract documents as necessary to incorporate comments from the City.
- 2.13 Prepare 100% design drawings and contract documents.
- 2.14 Submit three hard-copy sets of 100% drawings and contract documents, and a complete electronic set in Adobe PDF format for review by the City.
- 2.15 Meet with City Staff at the Evanston Water Plant to review comments on the 100% drawings and specifications.
- 2.16 Prepare final Bid Set of drawings and contract documents incorporating the City's comments.
- 2.17 For bidding, provide 2 sets of contract documents and one electronic version in Adobe PDF format.

- 2.18 For the City's use, provide copies of contract drawings in AutoCAD format and contract specifications in Microsoft Word format.
- 2.19 Prepare and obtain all applicable permits, including IEPA, City Building, and City Electrical.

**Task 3 IEPA SRF Loan Support**

The City will manage the IEPA SRF Loan Application process, and submit all materials. The Consultant will support the loan application effort as described below:

- 3.1 Develop the Project Plan.
  - 3.1.1 Submit a draft of the Project Plan to the City for review.
  - 3.1.2 Revise the Project Plan to incorporate comments from the City. The City will provide financial information needed to complete the Plan.
  - 3.1.3 Submit four hard-copies of the project plan to the City, and a complete electronic set in both Adobe PDF format Microsoft Word. The City will submit the Project Plan to the IEPA.
- 3.2 Provide information as needed for the City to prepare and submit the following items:
  - 3.2.1 Environmental Checklist,
  - 3.2.2 IDNR and IHPA sign-offs
  - 3.2.3 Public notice for Categorical Exclusion and public hearing if required
  - 3.2.4 Loan Application Form
  - 3.2.5 Design Submittal
  - 3.2.6 Engineering Checklist
  - 3.2.7 Bid Package Submittal
  - 3.2.8 Supplemental forms required for the IEPA SRF Loan Application.
- 3.3 Work with the City and IEPA Project Manager to ensure all contract documents are in accordance with IEPA requirements.
- 3.4 Provide a construction cost estimate to the City in IEPA's required format.
- 3.5 During construction, assist in preparation of submittals to IEPA, including change orders and disbursement requests.
- 3.6 Following construction, work with the City to provide necessary documentation to close out the project with the IEPA.

**Task 4 Bidding**

The City will manage the bidding process, advertise and distribute the Bid Set drawings and contract documents, and distribute needed addenda. The Consultant will support the bidding process as described below:

- 4.1 Submit a list of contractors (and contact information) that the Consultant considers to be qualified for the type of work to be bid. These contractors will not be prequalified, though they will be informed of the project via a direct email at the time of bid advertisement.
- 4.2 Attend a pre-bid meeting hosted at the Evanston Water Plant. Explain the project scope to bidders and answer technical questions.
- 4.3 Review questions from bidders and prepare addenda that may be necessary to clarify the contract documents or drawings.

- 4.4 Review bids and prepare Recommendation to Award to the lowest responsive and responsible bidder.
- 4.5 Assist the City in preparing construction contracts.

**Task 5 Project Management**

- 5.1 Manage scope, schedule, and budget of the work associated with Tasks 1 through 4, and perform administrative tasks needed for the successful completion of this work.
- 5.2 Prepare and submit monthly invoices with brief progress report/cover letter.
- 5.3 Provide quality assurance and quality control of the work produced by all staff and subcontractors.
- 5.4 Maintain regular communication with City staff, including weekly telephone/virtual progress updates. Meetings for review of significant deliverables or milestones should be in person. Prepare agenda and minutes for all meetings.

# Attachment C - Proposed Layout of Garage 4 Second Floor Expansion Improvements

