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Additional Work Authorization

Sent via email to Ray Schwab | schwabr@villageoflombard.org

Date:	1/30/2023	Client:	Village of Lombard, Illinois
Project Name:	Charles Lane Basin Improvements	ERA Project No.:	W22049.00

The work described in this Additional Work Authorization (AWA) is outside of the original scope of work anticipated for the professional service contract between Engineering Resource Associates, Inc. (ERA) and the Village of Lombard (Village). ERA will proceed as expeditiously as possible to complete the described services upon written authorization.

Reason(s) for Services:

The development of 65% Plans resulting from Site Visits, Design Meetings, Coordination with the permitting agency and Right-of-Way restrictions is requiring a retaining wall that is greater than 3-ft in height to meet the project's design goals. This retaining wall is proposed to be approximately 112-ft in length along Finley Road. It will need to be designed to hold back the floodwaters from the East Branch during large storm events. The retaining wall will be Cast-in-Place (CIP) wall or a CIP Soldier Pile wall. Plans will be designed under the direct supervision of a registered license structural engineer in the state of Illinois. Structural plans will also be signed and sealed.

The project requires compensatory storage for the volume of water below the 100-year base flood elevation that is no longer accessible with the proposed improvements for Finley Road. Typically, this would involve excavating in the floodplain. However, the areas around Charles Lane Basin that are adjacent to the proposed fill have environmental constraints (wetlands). To provide the compensatory storage inside the Charles Lane basin, ERA will need to perform hydrologic and hydraulic computations to show compliance with the Floodplain ordinance based on multiple pre-application meetings with DuPage County.

SCOPE OF WORK

Task 1 – Additional Design/Progress and Permitting Meetings

The expansion of the scope of work requires additional design and progress meetings with the Village of Lombard (virtual and in-person) and additional meetings with DuPage County permitting department.

Task 2 – Hydrologic and Hydraulic Modeling, Results Analysis and Documentation

ERA will create hydrologic and hydraulic models of Charles Lane Basin. They will be used to demonstrate that sufficient water enters the basin and can be occupied during storm events up to the 100-year. This would provide floodplain storage that can compensate for the removal of floodplain storage from the Finley Road protection improvements. This model will be used to set the overflow elevation and assist with determining the gravity outlet. The model will be simplified and not include the upstream storm sewer network. It will focus on the storage volume of Charles Lane basin using the simplified pumping operations and any proposed outlet improvements. The hydraulic models will guide the design. The results, calculations and documentation will be included in the permit application to DuPage County.

Task 3 – Geotechnical Borings and Report

For the design of the structural retaining wall, soil borings and analysis will be provided by Rubino Engineering. Their scope of work and contract is attached.

Task 4 - Geotechnical Coordination and Review

ERA will coordinate with the geotechnical firm to perform the soil borings. Coordination may include meetings, email, phone calls. ERA will provide the firm with the preliminary engineering plans and survey information for their use.

Task 5 - Retaining Wall Design - Plans, Specifications, and Estimate (PS&E)

ERA will prepare construction documents consisting of plans, specifications, and cost estimates for the new retaining wall. The following plans are anticipated:

- General Plan & Elevation (1 sheet)
- General Data (1 sheet)
- Wall Plans Sheets (2 sheets)
- Wall Details (1 sheet)
- Soil Boring Logs (1 sheet)

Task 6 -Quality Control/ Quality Assurance (QA/QC)

Quality Assurance is the overall process of developing procedures to ensure a quality product has been developed. These procedures constitute the Quality Control portion of the system. These procedures assure design elements, calculations, plans, specifications, etc. are free of errors, are clear and understandable, and can be built properly. This task is to provide the QC on the Hydrologic and Hydraulic models and the structural retaining wall design calculations. QC of the proposed improvements in the Plans, Specifications and Estimates are already included in the original scope of work.

BUDGET

TASK No;	WORK DESCRIPTION	HOURS	WEIGHTED HOURLY RATE	FEE	%OF GRAND TOTAL
1	Additional Design/Progress and Permitting Meetings	8	\$196	\$1,600.00	6.3%
2	Hydrologic and Hydraulic Modeling, Results Analysis and Documentation	36	\$157	\$5,700.00	22.6%
3	Geotechnical Borings and Report	By Others - Rubino Engineering, Inc.		\$6,200.00	24.6%
4	Geotechnical Coordination and Review	6	\$160	\$1,000.00	4.0%
5	Structural Design PS&E	60	\$143	\$8,600.00	34.1%
6	QA/QC	10	\$207	\$2,100.00	8.3%
TOTALS		120	\$173	\$25,200.00	100%

By: Engineering Resource Associates, Inc.

Marty Michalisko

Principal



1/30/2023

Name

Title

Signature

Date

Agreement to perform the services is hereby granted under the terms and conditions set forth in the contract (contract document number SS 18 01) accepted on March 3, 2022 by the Village of Lombard President and Board of Trustees. I acknowledge the above and authorize ERA to proceed with the change of work as described above.

By: Village of Lombard, Illinois

Client

Keith T. Giagnorio

Village President



2/16/2023

Authorized Name

Title

Signature

Date