

Sent via email to kdado@orlandpark.org.

September 7, 2021

Mr. Kenneth Dado
Utilities Operations Manager
Village of Orland Park
15655 S. Ravinia Avenue
Orland Park, IL 60462

SUBJECT: Proposal for Engineering and Planning of Watermain Replacement – Silver Lake West Water Main Replacement Stage 2 and Door Step Lane El Cameno Re'al Subdivision

Dear Mr. Dado:

Engineering Resource Associates, Inc. (ERA) is pleased to submit this proposal for design and construction engineering services for the Village of Orland Park's Silver Lake West Water Main Replacement Stage 2 and Door Step Lane El Cameno Re'al Subdivision Project in accordance with your request.

Project Understanding

The Project is slated for design in the fall of 2021 and construction in 2022, subject to budget approval. The existing water system that serves the residents in these areas has exceeded its useful service life and the Village desires to install new water main along sections of roadway within these areas of the Village. The work includes 4,000 feet of 8-inch ductile iron watermain and 3,000 of 12-inch ductile iron watermain along with new valves and fire hydrants and water service replacements along Fernwood Ct, Cypress Ct, Dogwood Dr, Castlebar Ln, 151st Street, and Quail Hollow Dr. The work also includes installation of approximately 6,000 feet of 8-inch ductile iron water main along with new valves and fire hydrants and water service replacements along Avenida Del Norte St, La Reina Real St, La Reina Ct, El Cameno Real Dr, and Avenida Del Este St.

Scope of Services

ERA will provide professional engineering services in accordance with the following anticipated work plan. Our work will conform to the Standard Specifications for Water and Sewer Construction in Illinois, IDOT standards and the Village of Orland Park's construction requirements.

DESIGN ENGINEERING

- 1) Project Meetings and Coordination** – The following meetings are anticipated during the design phase of these projects:
 - a. *Kick-Off Meeting* – Meet with Orland Park staff to discuss project issues, compile background information and initiate project.
 - b. *Progress Meetings* – Meet with Village staff during the design period to review Village comments and at the 75% and final submittal and discuss relevant issues.

WARRENVILLE

3S701 WEST AVENUE, SUITE 150
WARRENVILLE, IL 60555
P 630.393.3060

CHICAGO

10 SOUTH RIVERSIDE PLAZA, SUITE 875
CHICAGO, IL 60606
P 312.474.7841

CHAMPAIGN

2416 GALEN DRIVE
CHAMPAIGN, IL 61821
P 217.351.6268

- c. *Utility Coordination Meeting* – Meet with Village staff and utility companies during the design period to review and discuss proposed water main alignment, installation methods, potential conflicts, etc.
 - d. *Public Meetings* – Public meetings are not anticipated for this project. Meeting minutes will be emailed within 1 week of each meeting for review.
- 2) Data Acquisition** – This task includes the acquisition of data available from various sources to aid in the inventory and delineation of existing conditions. The following items will be obtained:
- a. Aerial Photography and Topography from Village
 - b. Existing roadway plans provided by the Village
 - c. Aerial base tax maps
 - d. Public utility atlases (storm, sanitary, water, electrical, etc.)
 - e. Private utility atlases (gas, electric, telephone, cable, TV)
 - f. Cook County topographic mapping and GIS information
 - g. Pressure flow of the existing water system provided by the Village
 - h. Electronic copies of Village standard contract documents, details, and specifications
- 3) Field Survey and Review Visits** – This task consists of field survey and visits to gather existing conditions information. Available topographic mapping, GIS information and aerial imagery will be used to create base plans and roadway profiles. GPS equipment or robotic total stations will be used to gather existing storm and sanitary sewer routing and locations. Detailed topographic survey using this equipment along the project limits will not be performed. The following planimetric features will be field reviewed to verify their approximate location:
- a. Horizontal locations of topographic features within the rights of way including found right-of-way monumentation, hydrants, valves, manholes, inlets, power poles, edge of pavement, sidewalks, driveways, and traffic control signage
 - b. All trees within the right-of-way limits will be located along the project alignment. The breast height diameter of each tree will also be measured.
 - c. Driveways, sidewalks, and structure locations within 15 feet of the right-of-way
 - d. Inventory of utility structures including pipe types, sizes, and routing
 - e. Pavement and right-of-way widths
- 4) Base Plans and Profile Sheets** – Information compiled from the field survey and visits and data acquisition tasks will be combined to produce base plans for each project at a scale of 1" = 40' horizontal and 1" = 10' vertical of the existing conditions. Base plan and profiles sheets will be prepared using our AutoCAD based system conforming to Village of Orland Park Village graphic standards. Base plans on 11" x 17" sheets will be submitted to the Village and private utility companies for review and comments.
- 5) Plans, Specifications and Estimates (PS&E)** – This task includes the preparation of contract documents for each project in accordance with Orland Park Village and IDOT standard format utilizing the 2021 version of AutoCAD. The plan set will include the following sheets.

Specifications will be prepared in the format required for IDOT projects using Microsoft Office. Village standard contract documents will be provided. The specifications will reference IDOT Standard Specifications and the Village's standards. Bid documents and unit price bid item quantities will be included. Contract documents will include bid forms, notice to bidders, contract forms, bonding



and insurance requirements and state and federal compliance requirements. PS&E will be submitted for review and approval at the 75% and 100% bid documents stages of completion.

This task also includes the preparation of a preliminary and final engineer's opinion of probable construction cost for the proposed improvements. They will be prepared using our extensive database of recent unit prices on similar projects in the area.

6) Permitting – ERA will prepare and submit permit applications and perform utility coordination for the following regulatory authorities.

- a. IEPA – Water Mains

7) Bidding Assistance – ERA will provide bidding assistance services as follows:

- a. Provide reproducible PS&E for distribution by the Village of Orland Park
- b. Attend pre-bid conference, if required
- c. Issue addenda if required
- d. Respond to bidder questions
- e. Attend bid opening
- f. Tabulate bids
- g. Provide award recommendation letter

CONSTRUCTION ENGINEERING

ERA will provide construction engineering services in accordance with the following work plan.

- 1) Meetings/Coordination** - Meet with the Contractor, Village of Orland Park staff, testing consultant staff and others for a pre-construction meeting. This task will also include weekly meetings throughout the project duration to review progress and discuss relevant issues.
- 2) Construction Observation** - This task involves on-site observation of Contractor operations to ensure conformance with the contract documents. It is our intention to provide full-time observation including a resident engineer throughout the project duration for an average of 8 hours per day. It is anticipated that a full-time resident engineer will be provided for the period between April 1, 2022 and October 1, 2022 which coincides with 120 actual working days. Direct costs of \$45/day for Daily Vehicle Usage will be billed for the anticipated 120 working days.

Construction observation tasks will include, but not be limited to:

- Serving as the Village's liaison with the Contractor primarily through the Contractor's superintendent, public/private utilities, and various jurisdictional agencies.
- Relay public concerns, and answer residents' questions.
- Daily review and inspection of traffic control items.
- Maintain a database of names, addresses and telephone numbers of subcontractors, contractors, suppliers, and utility companies and other agencies involved with the project.
- Alert the Contractor's field superintendent when un-approved materials or equipment are being used and advise the Village of such occurrences.



- 3) **Construction Documentation** - Documentation services include tracking of actual quantities and record keeping including Inspector's Daily Reports, quantity certifications, weekly progress reports, and reviewing and processing pay requests. As with all projects, we will utilize IDOT forms and procedures.
- 4) **Construction Layout Verification** - The contractor will be required to provide construction layout services. ERA will verify contractor layout for apparent conformance with the contract documents.
- 5) **Material Testing** - ERA will coordinate with the Village's material testing sub-consultant, if required, to perform laboratory testing on materials, sample bituminous and concrete materials for compaction and properties, and observe HMA paving operations.

Schedule

The work described in this agreement will be performed as expeditiously as weather and other physical conditions permit. The Engineer shall not be liable to the Owner, if delayed in, or prevented from performing the work as specified herein through any cause or causes beyond the control of the Engineer and not caused by his own fault or negligence including acts of God, or the public enemy, inclement weather conditions, acts of the government after the effective date of this agreement, fires, floods, epidemics, strikes, jurisdictional disputes, lockouts, and freight embargoes.

ERA has the staff and resources available to fully staff these projects for the duration of the design and construction. If the project schedules or scope of services change, we have additional staff and resources available to accommodate the project. Our experience on similar assignments and ability to shift staff and resources will contribute to the ultimate success of these projects.

Fees

ERA will provide design and construction engineering services described in this proposal on a 2.8 direct labor multiplier, not to exceed basis. The cost budget is included on the following page in a not-to-exceed amount of \$344,209.94.

We appreciate the opportunity to submit this proposal and trust that it meets with your approval. If acceptable, please sign the proposal where indicated below (Exhibit 1) and return one (1) copy for our files. Receipt of executed proposal will serve as authorization to continue with the project to the full extent of the contract. The attached agreement provisions are expressly incorporated into and are an integral part of this proposal for engineering services.

If you have any questions, please contact me at 630-393-3060x1003 or bdusak@eraconsultants.com.

Sincerely,
ENGINEERING RESOURCE ASSOCIATES, INC.



Brian Dusak, PE
Principal / Project Manager



ENGINEERING
RESOURCE ASSOCIATES

Exhibit 1

Acceptance & Authorization Form – September 7, 2021 Proposal

Engineering and Planning of Watermain Replacement – Silver Lake West Water Main Replacement Stage
 2 and Door Step Lane El Cameno Re'al Subdivision
 Village of Orland Park

Engineering Resource Associates, Inc.

Village of Orland Park


Authorized Signature

Brian Dusak, PE, Project Manager

Printed Name and Title

3S701 West Avenue
 Suite 150
 Warrenville, Illinois 60555
 630-393-3060 t, 630-393-2152 f

Authorized Signature**Printed Name and Title****Date****Please Provide Contact Information:**

Mailing Address:

(please provide street address for UPS deliveries)

Telephone & Facsimile Numbers:

Email Address:

INVOICES should be sent via:

If different than above address,
 invoices should be addressed to:

Email USPS Mail Email & USPS Mail

Attn:

Invoice Email Address (if different than above):

Note any billing procedures/forms:



ENGINEERING
 RESOURCE ASSOCIATES



**Illinois Department
of Transportation**

**Cost Estimate
Consultant Se**
(Direct Labor Multiple)

Firm	Engineering Resource Associates, Inc.
Route	Silver Lake West Water Main Replacement
Section	Phase 2 and El Cameno Re'al
County	Cook
Job No.	
PTB & Item	

Date 09/07/21

Overhead Rate 127.04%

Complexity Factor 0

BDE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	(2.80+R) TIMES PAYROLL (C)	DIRECT COSTS (D)	SERVICES BY OTHERS (E)	DBE TOTAL (C+D+E)	TOTAL (C+D+E)	% OF GRAND TOTAL
	Project Meetings and Coordination	40	1,815.75	5,084.11	50.00			5,134.11	1.49%
	Data Acquisition	20	877.00	2,455.60				2,455.60	0.71%
	Field Survey and Review Visits	88	3,081.54	8,628.31	100.00			8,728.31	2.54%
	Base Plans and Profile Sheets	144	6,320.93	17,698.61	100.00			17,798.61	5.17%
	Plans, Specifications and Estimate	980	44,363.01	124,216.43				124,216.43	36.09%
	Permitting	48	2,160.00	6,048.00	50.00			6,098.00	1.77%
	Bidding Assistance	16	733.52	2,053.86				2,053.86	0.60%
	Meetings and Coordination	40	1,752.62	4,907.34				4,907.34	1.43%
	Construction Observation	1320	48,344.86	135,365.60				135,365.60	39.33%
	Construction Documentation	288	11,055.54	30,955.52	5,400.00			36,355.52	10.56%
	Construction Layout Verification	4	138.04	386.51				386.51	0.11%
	Material Testing	6	253.59	710.05				710.05	0.21%
	TOTALS	2994	120,896.41	338,509.94	5,700.00	0.00	0.00	344,209.94	100.00%

DBE 0.00%



Average Hourly Project Rates

Route Silver Lake West Water Main Replacement
Section Phase 2 and El Cameno Re'al
County Cook
Job No.
PTB/Item

Consultant Engineering Resource Associates, Inc.

Date 09/07/21

Sheet 1 **OF** 1

Payroll Classification	Avg Hourly Rates	Total Project Rates			Project Meetings and Coordina			Data Acquisition			Field Survey and Review Visits			Base Plans and Profile Sheets			#REF!		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Professional Engineer VI	\$70.00	0																	
Professional Engineer V	\$70.00	0																	
Professional Engineer IV	\$66.48	0																	
Professional Engineer III	\$57.77	326	10.89%	6.29	8	20.00%	11.55												
Professional Engineer II	\$46.82	244	8.15%	3.82	12	30.00%	14.05	8	40.00%	18.73				24	16.67%	7.80			
Professional Engineer I	\$37.88	0																	
Structural Engineer IV	\$65.98	0																	
Structural Engineer III	\$45.68	0																	
Staff Engineer III	\$41.87	424	14.16%	5.93	16	40.00%	16.75	12	60.00%	25.12									
Staff Engineer II	\$34.51	1472	49.16%	16.97															
Staff Engineer I	\$31.97	0																	
Engineering Technician V	\$43.31	436	14.56%	6.31										120	83.33%	36.09			
Engineering Technician IV	\$39.08	0																	
Engineering Technician III	\$30.96	0																	
Engineering Intern II	\$25.38	0																	
Engineering Intern I	\$16.57	0																	
Ecological Services Director	\$51.77	0																	
Environmental Specialist I	\$27.79	0																	
Professional Surveyor II	\$47.71	8	0.27%	0.13							8	9.09%	4.34						
Surveyor III	\$33.75	80	2.67%	0.90							80	90.91%	30.68						
Administrative Staff IV	\$37.56	0																	
Administrative Staff III	\$30.45	4	0.13%	0.04	4	10.00%	3.05												
Administrative Staff II	\$24.87	0																	
Engineering Technician II	\$27.41	0																	
Professional Surveyor I	\$43.65	0																	
Surveyor II	\$25.88	0																	
Administrative Director	\$47.71	0																	
		0																	
		0																	
		0																	
TOTALS		2994	100%	\$40.38	40	100%	\$45.39	20	100%	\$43.85	88	100%	\$35.02	144	100%	\$43.90	0	0%	\$0.00



Average Hourly Project Rates

Route Silver Lake West Water Main Replacement
Section Phase 2 and El Cameno Re'al
County Cook
Job No.
PTB/Item

Consultant Engineering Resource Associates, Inc.

Date 09/07/21

Sheet 2 OF 1

Payroll Classification	Avg Hourly Rates	Plans, Specifications and Estimating			Permitting			Bidding Assistance											
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Professional Engineer VI	\$70.00																		
Professional Engineer V	\$70.00																		
Professional Engineer IV	\$66.48																		
Professional Engineer III	\$57.77	120	12.24%	7.07	8	16.67%	9.63	4	25.00%	14.44									
Professional Engineer II	\$46.82	200	20.41%	9.56															
Professional Engineer I	\$37.88																		
Structural Engineer IV	\$65.98																		
Structural Engineer III	\$45.68																		
Staff Engineer III	\$41.87	360	36.73%	15.38	24	50.00%	20.93	12	75.00%	31.40									
Staff Engineer II	\$34.51																		
Staff Engineer I	\$31.97																		
Engineering Technician V	\$43.31	300	30.61%	13.26	16	33.33%	14.44												
Engineering Technician IV	\$39.08																		
Engineering Technician III	\$30.96																		
Engineering Intern II	\$25.38																		
Engineering Intern I	\$16.57																		
Ecological Services Director	\$51.77																		
Environmental Specialist I	\$27.79																		
Professional Surveyor II	\$47.71																		
Surveyor III	\$33.75																		
Administrative Staff IV	\$37.56																		
Administrative Staff III	\$30.45																		
Administrative Staff II	\$24.87																		
Engineering Technician II	\$27.41																		
Professional Surveyor I	\$43.65																		
Surveyor II	\$25.88																		
Administrative Director	\$47.71																		
TOTALS		980	100%	\$45.27	48	100%	\$45.00	16	100%	\$45.85	0	0%	\$0.00	0	0%	\$0.00	0	0%	\$0.00



Average Hourly Project Rates

Route Silver Lake West Water Main Replacement
Section Phase 2 and El Cameno Re'al
County Cook
Job No.
PTB/Item

Consultant Engineering Resource Associates, Inc.

Date 09/07/21

Sheet 3 OF 1

Payroll Classification	Avg Hourly Rates	Meetings and Coordination			Construction Observation			Construction Documentatio			Construction Layout Verific			Material Testing					
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Professional Engineer VI	\$70.00																		
Professional Engineer V	\$70.00																		
Professional Engineer IV	\$66.48																		
Professional Engineer III	\$57.77	16	40.00%	23.11	120	9.09%	5.25	48	16.67%	9.63				2	33.33%	19.26			
Professional Engineer II	\$46.82																		
Professional Engineer I	\$37.88																		
Structural Engineer IV	\$65.98																		
Structural Engineer III	\$45.68																		
Staff Engineer III	\$41.87																		
Staff Engineer II	\$34.51	24	60.00%	20.71	1200	90.91%	31.37	240	83.33%	28.76	4	100.00%	34.51	4	66.67%	23.01			
Staff Engineer I	\$31.97																		
Engineering Technician V	\$43.31																		
Engineering Technician IV	\$39.08																		
Engineering Technician III	\$30.96																		
Engineering Intern II	\$25.38																		
Engineering Intern I	\$16.57																		
Ecological Services Director	\$51.77																		
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Professional Surveyor II	\$47.71																		
Surveyor III	\$33.75																		
Administrative Staff IV	\$37.56																		
Administrative Staff III	\$30.45																		
Administrative Staff II	\$24.87																		
Engineering Technician II	\$27.41																		
Professional Surveyor I	\$43.65																		
Surveyor II	\$25.88																		
Administrative Director	\$47.71																		
TOTALS		40	100%	\$43.82	1320	100%	\$36.62	288	100%	\$38.39	4	100%	\$34.51	6	100%	\$42.26	0	0%	\$0.00