

- **Provide Detailed and Accurate Construction Estimates:** Three construction estimates will be provided as part of the final design phase concurrent with 60%, 90%, and final plan submittals. These estimates will be developed based on LHBs experience working on similar projects in the area.

The preliminary design was informed by input from the residents, stakeholders, and City staff. The design aims to reduce impacts off the right-of-way, while meeting the City's goals.

Eklund Avenue (MSAS 214) is a Municipal State Aid Street, and the preliminary design meets State Aid Standards without design exceptions; however any apparent design exceptions required to align with the selected intersection treatment at Farrell Road will be reviewed during the design process. Features of the proposed roadway developed through the preliminary design phase include:

- An urban street section with two 10-foot-wide driving lanes and B624 curb & gutter;
- A 5-foot-wide sidewalk on one side of Eklund Avenue;
- A permanent stormwater basin to meet City, MS4 and regulatory requirements;
- Drainage improvements, including a new storm sewer system and roadside ditching to provide positive drainage to discharge areas; and
- A potential traffic circle or mini roundabout layout at Farrell Road.

During the public engagement process in preliminary design, LHB presented traffic circle concepts at the Ideal Street and Farrell Road intersections. There was more support from adjacent property owners for the traffic circle at Farrell Road compared to the Ideal Street intersection. A traffic circle or a mini roundabout has not been fully vetted yet, and the full impacts of each will need to be determined during final design. For further consideration by the City, LHB and SRF will collaborate on developing both a traffic circle and mini roundabout option at the Farrell Road intersection; reviewing construction limits, right-of-way impacts, geometric considerations, and qualitative operational advantages/disadvantages of each.

We understand the project funding has not been finalized and may use City roadway and utility funds and/or State Aid funds. Our proposal assumes that MnDOT State Aid funding will be used for the project in addition to local utility funds. Final plans will be prepared to meet State Aid standards and our proposed final design scope includes all applicable State Aid forms and checklists. LHB will also prepare and submit the required State Aid hydraulics report.

PROJECT SCOPE

TASK 1 – PROJECT MANAGEMENT

LHB will provide project management and coordination services which will include quality assurance/control of project deliverables and tracking project schedule. This task assumes final design will span from August 2024 to March 2025 (approx. 34 weeks).

Services

- Prepare and distribute project correspondence.
- Facilitate Kickoff Meeting (Virtual).
- Bi-Weekly Check-In Meetings (Virtual).
- Monitor project budget.
- Manage Quality Control and Assurance process.
- Communication with City staff and the public.

Deliverables

- Project correspondence.
- Project invoicing.

Provided by City

- Timely project coordination, comments, and review/feedback to questions during design.

TASK 2 – PUBLIC ENGAGEMENT

During the final design phase, the City will host two public meetings to inform the public of the project. One meeting is expected to take place in November/December 2024 after 60% design, and the other in the spring of 2025 prior to construction. LHB will assist the City in the engagement of the residents and stakeholders along the corridor via the services listed below. It is assumed that LHB's responsibilities will include facilitating and leading these two in-person public meetings.

Services

- Facilitate and lead public meetings (2 in person).
- LHB will create and print display boards, handouts, layouts, and comment cards.
- Preparing and mailing public meeting invitation postcards.

Deliverables

- Public Meeting materials, agendas, and minutes.
- Meeting invitation postcards.

Provided by City

- Participate in public meetings and ensure key staff are in attendance.
- Coordinate / reserve room for public meeting.
- Provide mailing list.

TASK 3 – SURVEY AND EASEMENT ASSISTANCE

During the preliminary design phase, LHB gathered topographic field survey of the corridor. Some additional survey is anticipated during final design. We have budgeted an additional three (3) days of survey work in this final design proposal.

LHB has mapped the in-place City right-of-way along the project corridor. Right-of-way acquisition, temporary and permanent, will be required for the project. Our scope includes identifying right-of-way impacts and providing the City with temporary and permanent easement exhibits. Separate easement exhibits will be provided for each property and will be complete with all information needed to assist the City in property negotiations. Permanent easement exhibits will include legal descriptions. We understand it is critical that the easement exhibits be submitted by September 23, 2024 to allow adequate time for the City to acquire the property prior to construction.

Services

- Perform additional topographic field survey (assume 3 days).
- Prepare temporary easement exhibits (assume 27 separate exhibits).
- Prepare permanent easement exhibits (assume 10 separate exhibits).
- Support City in right-of-way acquisition by meeting with residents on-site, tracking progress, and mailing exhibits as needed.

Deliverables

- Project survey with base map.
- Temporary easement exhibits.
- Permanent easement legal exhibits and descriptions.

Provided by City

- Provide historic plans and other data relevant to the design and project mapping.
- Lead right-of-way negotiations with residents.

TASK 4 – WETLAND DELINEATION AND PERMITTING

During preliminary design, LHB did a cursory field review to identify the approximate wetland boundary on the west side of the proposed stormwater basin. LHB will provide a field delineation of the wetland near the proposed stormwater filtration basin. LHB will also create wetland mapping and a delineation report. LHB will also submit the WCA/USACE Joint Permit Application and will facilitate Technical Evaluation Panel (TEP) site review.

Services

- Field wetland delineation.
- Create wetland mapping and delineation report.
- Preparation and submittal of WCA/USACE Joint Permit Application.
- Facilitate Technical Evaluation Panel (TEP) Site Review.

Deliverables

- Wetland Delineation
- WCA/USACE Joint Permit Application.
- TEP approved wetland report.

Provided by City

- Review and sign permit application forms.
- Permitting agency fees

TASK 5 – UTILITY COORDINATION

LHB will implement the appropriate project utility coordination in accordance with MnDOT's Utility Accommodation and Coordination Manual. Work under this task includes the preparation of the utility identification, verification and relocation meeting correspondence and materials; completion of the project utility certification; and incorporation of this utility information into the final plans, including utility tabulations.

Services

- Initiate Gopher State One Call (Design Locate).
- Contact Utility Owners to request facilities mapping within project area and establish utility owner project contacts.
- Utility Information Meeting – send notification letters and preliminary plans; lead and facilitate information meeting; and prepare meeting minutes.
- Review utility owner supplied information and incorporate into project plans to ensure proper mapping of existing utilities within project limits.
- Utility Design meeting—send notification letters, updated plans and utility tabulations to identify utility conflicts and potential relocations; lead and facilitate design meeting and prepare meeting minutes.

Services (cont.)

- Request Utility Owner Relocation Plans (as needed).
- Update Gopher State One Call (Utility Verification) no more than 90 days prior final plan submittal.
- Review Utility Relocation Plans (as needed).
- Ensure utility information is included in plans and confirm accuracy and coordination of plans and tabulations.

Deliverables

- Utility coordination documentation including checklists, letters, agendas, and minutes.

Provided by City

- Participate in utility design meetings.
- Utility permits for relocations

TASK 6 – FINAL DESIGN & CONSTRUCTION DOCUMENTS

This task includes the completion of final design and preparation of detailed construction plans, special provisions, and estimates.

The final plans will be prepared in accordance with City and MnDOT State Aid requirements. Applicable State Aid forms and checklists will also be prepared and submitted to State Aid along with the 90% plans and estimate. In addition to the final design of the new roadway with an urban section, the construction plans will include ADA intersection details, drainage design, erosion control plans, temporary water layout, water main design, signing and pavement markings plans, driveway designs, and roundabout or traffic circle plans. See the attached fee estimate for the full list of anticipated sheets.

We understand the City would like the design team to study and prepare final plans for either a traffic circle or a mini roundabout at the intersection of Farrell Road and Eklund Avenue, for consideration as an alternative intersection design. The team will develop these options to determine property impacts and will advise the City on a recommended option appropriate for the corridor and meeting the project goals. We propose to continue working with SRF on the geometric layout of a traffic circle and mini roundabout. LHB will incorporate the geometry provided by SRF into final roundabout plans. SRF will provide a QA review of the 60% and 90% plans.

The narrow right-of-way makes keeping grading impacts off private property difficult to achieve. LHB has included the design and detail of four 4-foot-high retaining walls to reduce grading impacts on private property where necessary.

LHB will prepare signed technical special provisions, based on the City's boilerplate, for inclusion in the bid package.

Services

- Complete and submit 60% plan and cost estimate.
- Complete and submit 90% plan and cost estimate - complete design to biddable level including quantity takeoffs, construction details, and statement of estimated quantities for submittal to State Aid.
- Complete 100% plan—final biddable plan reflecting 90% design comments.
- Prepare technical Special Provisions

Deliverables

- 60%, 90% and 100% Design submittals.
- 60%, 90% and Final Engineer's Estimate.
- Special Provisions.

Provided by City

- Review and provide feedback on design plans as desired.
- Review and provide feedback on final design plans as desired.

TASK 7 – HYDRAULIC DESIGN

This task includes the development of the final hydraulic design report. This report entails drainage area delineations, comparison of existing and proposed flow rates, and describes stormwater basin design. LHB will also prepare and submit the MnDOT State Aid hydraulics submittal.

Services

- Modeling results of existing and proposed conditions.
- Prepare hydraulics report for the City.
- Incorporate drainage design into final roadway plans.

Deliverables

- 60%, 90% and 100% Design submittals (Included in final design task).
- MnDOT State Aid hydraulics submittal.
- Final Hydraulic Design Report.

TASK 8 – BIDDING

LHB will provide completed plans and Special Provisions to the City for bidding. We will attend the pre-bid conference and answer questions from contractors during bidding.

Services

- Provide final plans and Special Provisions for bidding.
- Attend pre-bid conference.
- Answer questions from contractors.

Deliverables

- Final plans and Special Provisions for bidding.

ESTIMATE COST / FEES

LHB will provide the Scope of Services identified above on an hourly basis, including reimbursable expenses, for an estimated fee of Two Hundred Thirty-Six Thousand Nine Hundred Seven Dollars (\$236,907), divided as shown below:

▪ Task 1 – Project Management	\$12,670
▪ Task 2 – Public Engagement	\$7,524
▪ Task 3 – Survey & Easement Assistance	\$46,865
▪ Task 4 – Wetland Delineation & Permitting	\$3,074
▪ Task 5 – Utility Coordination	\$3,996
▪ Task 6 – Final Design & Construction Documents	\$139,324
▪ Task 7 – Hydraulic Design	\$5,358
▪ Task 8 – Bidding	\$3,096
▪ Subconsultant Fee (SRF)	\$15,000

We are looking forward to continuing our work with the City of Duluth on this project. Feel free to contact me if you have any questions.

LHB, INC.



MEGAN GOPLIN, PE
CIVIL ENGINEERING MANAGER



MATT J. SETTERGREN
VICE PRESIDENT

Attachments: Fee Estimate Worksheet

c: LHB Project No. 230610

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<div><div><div><div></div><div>LHB</div></div><div><div>SRF</div></div></div><div>WORK PLAN</div></div> <div><div>PROJECT NAME</div><div>CLIENT</div><div>PREPARER</div></div> <div><div>EKLUND AVE RECONSTRUCTION-FINAL DESIGN</div><div>CITY OF DULUTH</div><div>LHB</div></div> <div><div>PROJECT NUMBER</div><div>DATE</div></div> <div><div>230610</div><div>7/25/24</div></div>														COST PROPOSAL			
Work Task	Description	LHB												TOTAL HOURS	TOTAL EXPENSES	TOTAL LABOR COST PER TASK	TOTAL COST PER DELIVERABLE
		Matt Settergren	Megan Goplin	Adam Besse	Nathan Bruno	Chris Miller	Rachel Johnson	Phil Barden	Paul Vogel	Tony Hanson	Steve Hohenstein	Linda Nelson					
		Project Principal & Quality Manager	Project Manager & Roadway Lead	Utility Lead	Drainage Lead	Structural Lead	Visual Quality Lead	Senior Technician	Land Surveyor	Survey Tech	Wetland Specialist	Admin					
1.00	PROJECT MANAGEMENT	1	60	4	6	0	0	0	0	0	0	0	71	\$ -	\$ 12,670.00	\$ 12,670.00	
1.01	Kickoff Meeting with City		2											\$ 360.00	\$ 360.00		
1.02	Bi-Weekly Status Meetings with City (Assume 12)		24	4	6									\$ 5,980.00	\$ 5,980.00		
1.03	Project Management & Consultant Team Coordination	1	34											\$ 6,330.00	\$ 6,330.00		
2.00	PUBLIC ENGAGEMENT	1	18	0	0	0	8	16	0	0	0	10	53	\$ 300.00	\$ 7,224.00	\$ 7,524.00	
2.01	Prepare and Send Meeting Postcards		2									6		\$ 954.00	\$ 1,254.00		
2.02	Prepare Meeting Exhibits and Presentation	1	10				8	16				4		\$ 5,190.00	\$ 5,190.00		
2.03	Public Meetings (2)		6											\$ 1,080.00	\$ 1,080.00		
3.00	SURVEY & EASEMENT ASSISTANCE	0	53	0	0	0	0	148	44	94	0	6	345	\$ 975.00	\$ 45,890.00	\$ 46,865.00	
3.01	Field Survey (Assumes 3 days)		1					12	6	30				\$ 5,874.00	\$ 6,849.00		
3.02	Right-of-Way and Easement Evaluation		32					24						\$ 8,688.00	\$ 8,688.00		
3.03	Prepare Temporary Easement Exhibits (Assume 27)		12					80	14					\$ 14,350.00	\$ 14,350.00		
3.04	Prepare Permanent Easement Exhibits (Assume 10)		8					32	24	64		6		\$ 16,978.00	\$ 16,978.00		
4.00	WETLAND DELINEATION & PERMITTING	0	4	0	0	0	0	0	0	0	22	0	26	\$ -	\$ 3,074.00	\$ 3,074.00	
4.01	Field Wetland Delineation										6			\$ 642.00	\$ 642.00		
4.02	Wetland Mapping & Delineation Report		2								8			\$ 1,216.00	\$ 1,216.00		
4.03	Wetland Permitting		2								8			\$ 1,216.00	\$ 1,216.00		
5.00	UTILITY COORDINATION	0	10	0	0	0	0	18	0	0	0	0	28	\$ -	\$ 3,996.00	\$ 3,996.00	
5.01	Gopher State One Call (Design Locate)							1						\$ 122.00	\$ 122.00		
5.02	Gather Utility Maps and Contacts		1					4						\$ 668.00	\$ 668.00		
5.03	Utility Information Meeting		1											\$ 180.00	\$ 180.00		
5.04	Mapping & Incorporation Into Design Plans		1					8						\$ 1,156.00	\$ 1,156.00		
5.05	Utilitiy Design Meeting		1											\$ 180.00	\$ 180.00		
5.06	Request & Review Utility Relocation Plans		4											\$ 720.00	\$ 720.00		
5.07	Update Gopher State One Call Utility Verification							1						\$ 122.00	\$ 122.00		
5.08	Final Review and Coordination with Design Plans		2					4						\$ 848.00	\$ 848.00		
6.00	FINAL DESIGN & CONSTRUCTION DOCUMENTS	3	217	50	92	76	0	529	0	0	0	4	971	\$ -	\$ 139,324.00	\$ 139,324.00	
6.01	Title Sheet		1					4						\$ 668.00	\$ 668.00		
6.02	General Layout		1					4						\$ 668.00	\$ 668.00		
6.03	Statement of Estimated Quantities (3 Sheets)		6					6						\$ 1,812.00	\$ 1,812.00		
6.04	Construction Notes & MnDOT Standard Plates		4					4						\$ 1,208.00	\$ 1,208.00		
6.05	Tabulations (12 Sheets)		8	6	12	6		60						\$ 12,600.00	\$ 12,600.00		
6.06	Inplace Utilities Tabulation & Plan (4 Sheets)		2					10						\$ 1,580.00	\$ 1,580.00		
6.07	Typical Sections (2 Sheets)		10					16						\$ 3,752.00	\$ 3,752.00		
6.08	Construction Details (8 Sheets)		16		8	40		24						\$ 13,008.00	\$ 13,008.00		
6.09	ADA Intersection Details (6 Sheets)		32					8						\$ 6,736.00	\$ 6,736.00		
6.10	Standard Plan Sheets (8 Sheets)		2			2		6						\$ 1,392.00	\$ 1,392.00		
6.11	Alignment Plans & Tabulation		1					4						\$ 668.00	\$ 668.00		
6.12	Existing Conditions Plans (3 Sheets)		1					6						\$ 912.00	\$ 912.00		
6.13	Removal Plans (3 Sheets)		4					16						\$ 2,672.00	\$ 2,672.00		
6.14	Erosion Control Plan & SWPPP (7 Sheets)		2		10			24						\$ 4,788.00	\$ 4,788.00		
6.15	Temporary Water Plans (4 Sheets)		1	16				24						\$ 6,148.00	\$ 6,148.00		
6.16	Construction Plan & Profile (5 Sheets)		40	24	20	24		125						\$ 33,610.00	\$ 33,610.00		
6.17	Traffic Control Plans		12					20						\$ 4,600.00	\$ 4,600.00		
6.18	Pavement Marking and Signing Plans		6					24						\$ 4,008.00	\$ 4,008.00		
6.19	Driveway Profiles & Tabulation		4					24						\$ 3,648.00	\$ 3,648.00		
6.20	Drainage Profiles		2		40			20						\$ 8,800.00	\$ 8,800.00		
6.21	Cross Sections @ 50'-4 per sheet (12 sheets)		12					40						\$ 7,040.00	\$ 7,040.00		
6.22	Roundabout Plans	2	32					60						\$ 13,500.00	\$ 13,500.00		
6.23	Roundabout Geometry & Review (SRF)													See Sub-Consultants Below			
6.24	Cost Estimates (3 Total)		8											\$ 1,440.00	\$ 1,440.00		
6.25	State Aid Checklists & Forms		4											\$ 720.00	\$ 720.00		
6.26	Special Provisions	1	6	4	2	4						4		\$ 3,346.00	\$ 3,346.00		



WORK PLAN

PROJECT NAME EKLUND AVE RECONSTRUCTION-FINAL DESIGN
CLIENT CITY OF DULUTH
PREPARER LHB

PROJECT NUMBER 230610
DATE 7/25/24

COST PROPOSAL

Work Task	Description	LHB											TOTAL HOURS	TOTAL EXPENSES	TOTAL LABOR COST PER TASK	TOTAL COST PER DELIVERABLE
		Matt Settergren	Megan Goplin	Adam Besse	Nathan Bruno	Chris Miller	Rachel Johnson	Phil Barden	Paul Vogel	Tony Hanson	Steve Hohenstein	Linda Nelson				
		Project Principal & Quality Manager	Project Manager & Roadway Lead	Utility Lead	Drainage Lead	Structural Lead	Visual Quality Lead	Senior Technician	Land Surveyor	Survey Tech	Wetland Specialist	Admin				
7.00	HYDRAULIC DESIGN	0	2	0	32	0	0	0	0	0	0	2	36	\$ -	\$ 5,358.00	\$ 5,358.00
7.01	Hydraulic Modeling				16										\$ 2,400.00	\$ 2,400.00
7.02	Prepare and Submit State Aid Hydraulics Report		1		8							1			\$ 1,479.00	\$ 1,479.00
7.03	Prepare and Submit Final Hydraulic Design Report to City		1		8							1			\$ 1,479.00	\$ 1,479.00
8.00	BIDDING	0	8	2	1	1	0	8	0	0	0	0	20	\$ -	\$ 3,096.00	\$ 3,096.00
8.01	Pre-Bid Conference		2												\$ 360.00	\$ 360.00
8.02	Respond to Bidder Questions		6	2	1	1		8							\$ 2,736.00	\$ 2,736.00
															\$ -	\$ -
TOTAL HOURS		5	372	56	131	77	8	719	44	94	22	22	1550	SUMMARY		
COST PER HOUR		\$ 210	\$ 180	\$ 190	\$ 150	\$ 150	\$ 104	\$ 122	\$ 180	\$ 105	\$ 107	\$ 99		TOTAL LABOR \$ 220,632.00		
														TOTAL EXPENSES \$ 1,275.00		
TOTAL COST		\$ 1,050	\$ 66,960	\$ 10,640	\$ 19,650	\$ 11,550	\$ 832	\$ 87,718	\$ 7,830	\$ 9,870	\$ 2,354	\$ 2,178		SUB CONSULTANTS (SRF) \$ 15,000.00		
														TOTAL FEE \$ 236,907		