

# EXHIBIT A

## PROFESSIONAL ENGINEERING SERVICES AGREEMENT

### LHB, INC. & CITY OF DULUTH

THIS AGREEMENT, effective as of the date of attestation by the City Clerk, is made by and between the City of Duluth, Minnesota hereinafter referred to as the "City" and:

Name: **LHB, Inc.**  
Address: **21 West Superior Street, Suite 500, Duluth, MN 55802**

hereinafter referred to as the "Engineer", in consideration of the mutual promises contained herein.

Payments as described in Section V shall be made from Funding **440-038-5530, SIP2025-2091**; Project # **2091**; and Resolution No. **23-0690**, passed on **September 11, 2023**.

The professional engineering services obtained by the City under this agreement concern the following described project hereinafter referred to as the "Project":

Project Number: **2091**  
Project Name: **Eng Svcs for Duluth Hts Stormwater Study and Eklund Ave Reconstruct**  
Project Description: **Preliminary survey and engineering for Eklund Ave Reconstruction, as well as a preliminary engineering design for a stormwater/drainage study report**

The professional engineering services to be provided under this agreement consist of those phases A through G checked below. A more particular description of each phase is contained in Section II, "Basic Services", of the agreement.

	<u>Phase</u>	<u>Description</u>
<input checked="" type="checkbox"/>	A.	Study and Report Phase
<input checked="" type="checkbox"/>	B.	Preliminary Survey Phase
<input checked="" type="checkbox"/>	C.	Preliminary Design Phase
<input type="checkbox"/>	D.	Final Design Phase
<input type="checkbox"/>	E.	Bidding Phase
<input type="checkbox"/>	F.	Construction Survey and Layout Phase
<input type="checkbox"/>	G.	Construction Administration and Inspection Phase

### SECTION I. GENERAL

#### A. ENGINEER

The Engineer shall provide professional engineering services for the City in all phases of the Project to which this agreement applies, serve as the City's professional engineering representative for the Project as set forth below and shall give professional engineering consultation and advice to the City during the performance of services hereunder. All services provided hereunder shall be performed by the Engineer in accordance with generally accepted Engineering standards to the satisfaction of the City.

#### B. NOTICE TO PROCEED

The Engineer shall only begin performance of each Phase of work required hereunder upon receipt of a written Notice to Proceed by City representative with that Phase.

C. TIME

The Engineer shall begin work on each successive phase promptly after receipt of the Notice to Proceed and shall devote such personnel and materials to the Project so as to complete each phase in an expeditious manner within the time limits set forth in Section II. Time is of the essence to this agreement.

D. CITY'S REPRESENTATIVE

The City's representative to the Engineer shall be the City Engineer or his or her designees assigned in writing.

E. ENGINEERING GUIDELINES

All work performed as part of this project shall conform to the most current edition of the Engineering Guidelines for Professional Engineering Services and Developments as approved by the City Engineer and on file in the office of the City Engineer.

F. SUBCONSULTANTS

Engineer may contract for the services of sub-consultants to assist Engineer in the performance of the services to be provided by Engineer hereunder but the selection of any sub-consultant to perform such services shall be subject to the prior written approval of the City Engineer. Engineer shall remain responsible for all aspects of any services provided by such sub-consultants to City under this Agreement. City shall reimburse Engineer for sub-consultant services under the categories of services to be provided by Engineer under Phases A through G, as applicable.

**SECTION II. BASIC SERVICES**

A. STUDY AND REPORT PHASE

- Included in this Agreement
- Not included in this Agreement

The Engineer shall:

1) City's Requirements

Review available data and consult with the City to clarify and define the City's requirements for the Project.

2) Advise Regarding Additional Data

Advise the City as to the necessity of the City's providing or obtaining from others data or services in order to evaluate or complete the Project and, if directed by the City's representative, act on behalf of the City in obtaining other data or services.

3) Technical Analysis

Provide analysis of the City's needs, planning surveys, site evaluations, and comparative studies of prospective sites and solutions.

4) Economic Analysis

Provide a general economic analysis of various alternatives based on economic parameters and assumptions provided by the City.

5) Report Preparation

Prepare a report containing schematic layouts, sketches and conceptual design criteria with appropriate exhibits to indicate clearly the considerations involved and the alternative solutions available to the City and setting forth the Engineer's findings and recommendations with opinions of probable total costs for the Project, including construction cost, contingencies, allowances for charges of all professionals and consultants, allowances for the cost of land and rights-of-way, compensation for or damages to properties and interest and financing charges (all of which are hereinafter called "Project Costs").

6) Report Presentation

Furnish three copies of the report and present and review the report in person with the City as the City Representative shall direct.

7) Supplementary Duties

The duties and responsibilities of Engineer during the Study and Report Phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit B.

8) Completion Time

The Study and Report Phase shall be completed and report submitted by **December 15, 2023**.

B. PRELIMINARY SURVEY PHASE

- Included in this Agreement  
 Not included in this Agreement

After written authorization by the City's representative to proceed with the preliminary survey phase, the Engineer shall:

1) General

Perform topographic survey as necessary to prepare the design and provide Construction Survey and Layout as described in Section II.F

2) Boundary Survey

Perform boundary survey if checked.

3) Document Presentation

Furnish a CADD file of the survey base map to the City. Files shall be in the software specified in the Engineering Guidelines for Professional Engineering Services and Developments described in Section I.E.

4) Supplementary Duties

The duties-responsibilities of the Engineer during the preliminary survey phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit B.

5) Completion Time

The preliminary survey phase shall be completed and submitted by **February 15, 2024**.

C. PRELIMINARY DESIGN PHASE

- Included in this Agreement
- Not included in this Agreement

After written authorization by the City's Representative to proceed with the Preliminary Design Phase, the Engineer shall:

1) Preliminary Design Documents

Prepare preliminary design documents consisting of final design criteria, preliminary drawings and outline specifications.

2) Revised Project Costs

Based on the information contained in the preliminary design documents, submit a revised opinion of probable Project costs.

3) Preparation of Grants; Environmental Statements

Preparation of applications and supporting documents for governmental grants, loans or advances in connection with the Project, preparation or review of environmental assessments and impact statements; review and evaluation of the effect on the design requirements of the Project of any such statements and documentation prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.

4) Renderings and Models

Providing renderings or models for the City's use.

5) Economic Analysis

Investigations involving detailed consideration of operations, maintenance and overhead expenses; providing value engineering during the course of design; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing and assisting the City in obtaining licensing; detailed quantity surveys of material, equipment and labor; and audits of inventories required in connection with construction performed by the City.

6) Document Presentation

Furnish three copies of the above preliminary design documents and present and review such documents in person with the City as the City Engineer may direct.

7) Supplementary Duties

The duties and responsibilities of the Engineer during the Preliminary Design Phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit B.

8) Completion Time

The Preliminary Design Phase shall be completed and report or plan submitted by **April 30, 2024**.

D. FINAL DESIGN PHASE

- Included in this Agreement
- Not included in this Agreement

1) Drawings and Specifications

On the basis of the accepted preliminary design documents and the revised opinion of probable Project costs, prepare for incorporation in the contract documents Construction Plans to show the character and extent of the Project and specifications.

2) Approvals of Governmental Entities

Furnish to the City such documents and design data as may be required for, and prepare the required documents so that the City may apply for approvals and permits of such governmental authorities as have jurisdiction over design criteria applicable to the Project, and assist in obtaining such approvals by participating in submissions to and negotiations with appropriate authorities.

3) Adjusted Project Costs

Advise the City of any adjustments to the latest opinion of probable Project costs, identify cause of change and furnish a revised opinion of probable Project cost based on the drawings and specifications.

4) Contract Document Preparation

Prepare final plans and specifications for the Project, which shall include incorporation of plans and specifications prepared by subconsultants. Engineer shall assist in the preparation of contract documents. Engineer shall prepare all necessary project/plan review forms checklists, labor compliance requests, wage determination requests, bidding documents and other forms to assist the City with procuring Bids. Engineer shall review all plans and specifications and supporting documentation and resolve any inconsistencies in said documents being incorporated into the Contract prior to bid. To the extent possible, the Engineer will follow the document format supplied by the City and use the standard terms and conditions supplied by the City in preparation of these documents.

5) Real Estate Acquisition: Legal Description

Based on preliminary design documents, furnish a legal description and recordable reproducible 8-1/2" X 11" plat of each parcel of real estate in which the City must acquire an interest in order to proceed with construction of the Project.

6) Document Presentation

Furnish three copies of the above documents and present and review them in person with the City.

7) Supplementary Duties

The duties and responsibilities of the Engineer during the Final Design Phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit B.

8) Completion Time

The Final Design Phase shall be completed and contract documents submitted by **N/A**.

E. BIDDING PHASE

- Included in this Agreement
- Not included in this Agreement

The Engineer shall:

1) Assist in Bidding

Assist the City in obtaining bids for each separate City contract for construction, materials, equipment and services.

2) Advise Regarding Contractors and Subcontractors

Consult with and advise the City as to the acceptability of subcontractors and other persons and organizations proposed by the City's contractor(s) (hereinafter called "Contractor(s)" for those portions of the work as to which such acceptability is required by the bidding documents).

3) Consult Regarding Substitutes

Consult with and advise the City as to the acceptability of substitute materials and equipment proposed by the contractor(s) when substitution prior to the award of contracts is allowed by the bidding documents.

4) Evaluation of Bids

Assist the City in evaluating bids or proposals and in assembling and awarding contracts.

5) Supplementary Duties

The duties and responsibilities of the Engineer during the Bidding Phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit B.

6) Completion Time

The bidding phase shall be completed by **N/A**.

F. CONSTRUCTION SURVEY AND LAYOUT PHASE

Included in this Agreement

Not included in this Agreement

1) General

This phase of work may or may not be performed in conjunction with Phase G, "Construction Administration and Inspection Phase" of this agreement. Inclusion of this phase in the agreement does not imply that services identified under Phase G are to be provided unless specifically indicated in this agreement.

2) Duties

The Engineer shall provide horizontal and vertical control line and grade to enable construction of the improvement as depicted in the Project plans. The number of control points to be established by the Engineer shall be sufficient to permit the construction contractor to construct the improvement within the construction tolerances established in the Project specifications. In addition, the number of control points shall be consistent with standard engineering practice.

3) Accuracy

The Engineer shall provide the horizontal and vertical control points within the same measurement tolerances as the construction tolerances established in the Project specifications. The Engineer shall be responsible for the accuracy of the control points which are established. The Engineer shall be responsible for costs which may result from errors in placement of control points. The Engineer shall be required to establish control points at Engineer's costs only one time. Control points which are lost, damaged, removed or otherwise moved by the Contractor

or others shall be promptly replaced by the Engineer and costs for such replacement shall be computed on a time and materials basis, and reimbursed by the City. The Engineer shall take all reasonable and customary actions to protect the control points established by the Engineer.

4) Supplementary Duties

The duties and responsibilities of the Engineer during the construction survey and layout phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit B.

5) Completion Time

The construction survey & layout phase shall be completed by **N/A**.

G. CONSTRUCTION ADMINISTRATION AND INSPECTION PHASE

- Included in this Agreement
- Not included in this Agreement

1) General Duties

Consult with and advise the City and act as its representative as provided herein and in the General Conditions of the construction contract for the Project. This phase of the work may or may not be performed in conjunction with Phase F "Construction Survey and Layout Phase" of this agreement. Inclusion of this phase in the agreement does not imply that services identified under Phase F are to be provided unless specifically indicated in this agreement.

2) Construction Inspection and Reporting

Make visits to the site with sufficient frequency at the various stages of construction to observe as an experienced and qualified design professional the progress and quality of the executed work of the contractor(s) and to ensure that such work is proceeding in accordance with the contract documents. During such visits and on the basis of on-site observations, the Engineer shall keep the City informed of the progress of the work, shall endeavor to guard the City against defects and deficiencies in such work and may disapprove or reject work failing to conform to the contract documents.

3) Warranty Inspection

Eleven months following construction completion, conduct an inspection to document any items to be repaired by the contractor under the conditions of the construction contract warranty. Submit work to be corrected to the Contractor and the City.

4) Review of Technical and Procedural Aspects

Review and approve (or take other appropriate action in respect to Shop Drawings), the results of tests and inspections and other data which each contractor is required to submit, determine the acceptability of substitute materials and equipment proposed by the contractor(s), and receive and review (for general content as required by the specifications) maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection which are to be assembled by the contractor(s).

5) Contract Documents

Receive from each contractor and review for compliance with contract documents all required document submissions including but not limited to performance and payment bonds, certificates of insurance report forms required by any City, State or Federal law or rule or regulation and submit the forms to the City for final approval.

6) Conferences and Meetings

Attend meetings with the contractor, such as preconstruction conferences, progress meetings, job conferences and other Project-related meetings, and prepare and circulate copies of the minutes thereof including to the City.

7) Records

a) Maintain orderly files for correspondence, reports of job conferences, shop drawings and samples, reproductions of original contract documents, including all work directive changes, addenda, change orders, field orders, additional drawings issued subsequent to the execution of the contract, the Engineer's clarifications and interpretations of the contract documents, progress reports, and other Project-related documents.

b) Keep a diary or log book, recording the contractor's hours on the job site, weather conditions, data relative to questions of work directive changes, change orders, or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail, as in the case of observing test procedures and send copies to the City. Take multiple photographs of the Work and keep a log and file of the photos. Specifically maintain records of acceptance and rejection of materials and workmanship.

c) Record names, addresses and telephone numbers of all the contractors, subcontractors, and major suppliers of materials and equipment.

8) Reports

a) Furnish the City periodic reports, as required, on progress of the work and of the contractor's compliance with the progress schedule and schedule of shop drawings and sample submittals.

b) Consult with the City, in advance of scheduled major tests, inspections, or start of important phases of the Work.

c) Draft proposed change orders and work directive changes, obtaining back-up material from the contractor, and make recommendations to the City regarding change orders, work directive changes and field orders.

d) Report immediately to the City upon the occurrence of any accident.

9) Contract Interpretation, Review of Quality of Work

Issue all instruction of the City to the contractor(s); issue necessary interpretations and clarifications of the contract Documents and in connection therewith prepare change orders as required, subject to the City's approval; have authority, as the City's representative, to require special inspection or testing of the work; act as initial interpreter of the requirements of the contract documents and judge of the acceptability of the work there under and make decisions on all claims of the contractor(s) relating to the acceptability of the work or the interpretation of the requirements of the contract documents pertaining to the execution and progress of the work.

10) Change Orders and Revisions

Prepare change orders to reflect changes in the Project requested or approved by the City, evaluate substitutions proposed by the contractor(s) and make revisions to drawings and specifications occasioned thereby, and provide any additional services necessary as the result of significant delays, changes or price increases occurring as a direct or indirect result of material, equipment or energy shortages.



11) Review of Applications for Payment

Based on the Engineer's on-site observations as an experienced and qualified design professional and on review of applications for payment and the accompanying data and schedules, determine the amount owing to the contractor(s) and recommend in writing payments to the contractor(s) in such amounts; such recommendations of payment will constitute a representation to the City, based on such observations and review, that the work has progressed to the point indicated, that, to the best of the Engineer's knowledge, information and belief, the quality of such work is in accordance with the contract documents (subject to an evaluation of such work as a functioning Project upon substantial completion, to the results of any subsequent tests called for in the contract documents, and to any qualifications stated in his recommendation), and that payment of the amount recommended is due the contractor(s).

12) Determination of Substantial Completion

Conduct an inspection to determine if the Project is substantially complete and a final inspection to determine if the work has been completed in accordance with the contract documents and if each contractor has fulfilled all of his obligations there under so that the Engineer may recommend, in writing, final payment to each contractor and may give written notice to the City and the contractor(s) that the work is acceptable (subject to any conditions therein expressed).

13) Authority and Responsibility

The Engineer shall not guarantee the work of any contractor or subcontractor, shall have no supervision or control as to the work or persons doing the work, shall not have charge of the work, shall not be responsible for safety in, on, or about the job-site or have any control of the safety or adequacy of any equipment, building component, scaffolding, supports, forms or other work aids. If the Engineer determines that there are deficiencies in materials or workmanship on the Project, or otherwise deems it to be in the best interest of the City to do so, the Engineer shall be responsible to stop any contractor or subcontractor from performing work on the Project, until conditions giving rise to this need, therefore, are rectified.

14) Engineer Not Responsible for Acts of Contractor

The Engineer shall not be responsible for the supervision or control of the acts or omissions or construction means, methods or techniques of any contractor, or subcontractor, or any of the contractor(s)' or subcontractors' or employees or any other person (except the Engineer's own employees and agents) at the site or otherwise performing any of the contractor(s) work; however, nothing contained in this paragraph shall be construed to release the Engineer from liability for failure to properly perform duties undertaken by him in these contract documents or this agreement.

15) Preparation of Record Drawings

The Engineer shall prepare a set of record drawings in accordance with the Engineering Guidelines for Professional Engineering Services and Development described in Section I.E.

16) Manuals

The Engineer shall furnish operating and maintenance manuals; protracted or extensive assistance in the utilization of any equipment or system (such as initial start-up, testing, and adjusting and balancing); and training personnel for operation and maintenance.

17) Supplementary Duties

The duties and responsibilities of the Engineer during the construction administration and inspection phase shall also include any additional duties and responsibilities to be provided pursuant to the Engineer's proposal attached as Exhibit B.

18) Completion Time

The construction administration and inspection phase shall be completed by **N/A**.

**SECTION III. CITY'S RESPONSIBILITIES**

**A. FURNISH REQUIREMENTS AND LIMITATIONS**

Provide all criteria and full information as to the City's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expendability, economic parameters and any budgetary limitations; and furnish copies of all design and construction standards which the City will require to be included in the Drawings and Specifications.

**B. FURNISH INFORMATION**

Assist the Engineer by placing at the Engineer's disposal all available information reasonably known to and in possession of the City.

**C. REVIEW DOCUMENTS**

Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by the Engineer.

**D. OBTAIN APPROVALS AND PERMITS**

Furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from others as may be necessary for completion of the Project.

**E. ACCOUNTING, LEGAL AND INSURANCE SERVICE**

Provide such accounting, independent cost estimating and insurance counseling services as may be required for the Project, such auditing service as the City may require to ascertain how or for what purpose any contractor has used the monies paid to him under the construction contract, and such inspection services as the City may require to ascertain that the contractor(s) are complying with any law, rule or regulation applicable to their performance of the work except as otherwise provided in Section II.

**F. NOTIFY THE ENGINEER OF DEFECTS OR DEVELOPMENT**

Give prompt written notice to the Engineer whenever the City observes or otherwise becomes aware of any development that affects the scope or timing of the Engineer's services, or any defect in the work of the contractor(s).

**G. COSTS OF THE CITY'S RESPONSIBILITIES**

Bear all costs incidental to compliance with the requirements of this Section III.

**SECTION IV. GENERAL CONSIDERATIONS**

**A. SUCCESSORS AND ASSIGNS**

The City and the Engineer each binds their respective partners, successors, executors, administrators and assigns to the other party of this agreement and to the partners, successors, executors, administrators, and assigns of such other party, in respect to all covenants of this agreement; the Engineer shall not assign, sublet, or transfer their respective interests in this agreement without the written consent of the City. Nothing herein shall be construed as creating

any personal liability on the part of any officer or agent of any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the City and the Engineer.

**B. OWNERSHIP OF DOCUMENTS**

All drawings, specifications, reports, records, and other work product developed by the Engineer in connection with this Project shall remain the property of the City whether the Project is completed or not. Reuse of any of the work product of the Engineer by the City on extensions of this Project or any other Project without written permission of the Engineer shall be at the City's risk and the City agrees to defend, indemnify and hold harmless the Engineer from all damages and costs including attorney fees arising out of such reuse by the City or others acting through the City.

**C. ESTIMATES OF COST (COST OPINION)**

Estimates of construction cost provided are to be made on the basis of the Engineer's experience, qualifications and the best of their professional judgment, but the Engineer does not guarantee the accuracy of such estimates as compared to the contractor's bids or the Project construction cost.

**D. INSURANCE**

1) Engineer shall provide the following minimum amounts of insurance from insurance companies authorized to do business in the state of Minnesota:

- a) Workers' compensation insurance in accordance with the laws of the State of Minnesota.
- b) Commercial General and Automobile Liability Insurance with limits not less than **\$1,500,000** Single Limit shall be in a company approved by the city of Duluth; and shall provide for the following: Liability for Premises, Operations, Completed Operations, Independent Contractors, and Contractual Liability. Umbrella coverage with a "form following" provision may make up the difference between the commercial general and auto liability coverage amounts and the required minimum amount stated above.
- c) Professional Liability Insurance in an amount not less than **\$1,500,000** Single Limit; provided further that in the event the professional liability insurance is in the form of "claims made," insurance, Engineer hereby commits to provide at least 60 days' notice prior to any change to the Professional Liability Insurance policy or coverage ; and in event of any change, Engineer agrees to provide the City with either evidence of new insurance coverage conforming to the provisions of this paragraph which will provide unbroken protection to the City, or, in the alternative, to purchase at its cost, extended coverage under the old policy for the period the state of repose runs; the protection to be provided by said "claims made" insurance shall remain in place until the running of the statute of repose for claims related to this Agreement.
- d) **City of Duluth shall be named as Additional Insured** under the Commercial General and Automobile Liability Policies. Engineer shall also provide evidence of Statutory Minnesota Workers' Compensation Insurance. Engineer to provide Certificate of Insurance evidencing such coverage with notice to City of cancellation in accordance

with the provisions of the underlying insurance policy included. The City of Duluth does not represent or guarantee that these types or limits of coverage are adequate to protect the Engineer's interests and liabilities.

- 2) Certificates showing that Engineer is carrying the above described insurance in the specified amounts shall be furnished to the City prior to the execution of this Agreement and a certificate showing continued maintenance of such insurance shall be on file with the City during the term of this Agreement.
- 3) The City shall be named as an additional insured on each liability policy other than the professional liability and the workers' compensation policies of the Engineer.
- 4) The certificates shall provide that the policies shall not be cancelled during the life of this Agreement without advanced notice being given to the City at least equal to that provided for in the underlying policy of insurance.
- 5) Except as provided for in Section IV.D.1.d) above, Engineer hereby commits to provide notice to City at least 30 days in advance of any change in the insurance provided pursuant to this Section IV or in advance of that provided for in the underlying insurance policy or policies whichever is longer. For the purposes of Section IV.D of this Agreement, the term, "changed", shall include cancellation of a policy of insurance provided hereunder and any modification of such policy which reduces the amount of any coverage provided thereunder below the amounts required to be provided hereunder or otherwise reduces the protections provided under such policy to City.

E. HOLD HARMLESS

To the fullest extent permitted by law, Engineer agrees that it shall defend, indemnify, and hold harmless the City, its officers, employees, and agents, past or present, from and against any and all claims including but not limited to claims for contribution or indemnity, demands, suits, judgments, costs, and expenses (including attorneys' fees) asserted by itself or any person or persons including agents or employees of the City of Duluth or Engineer by reason of death or injury to person or persons or the loss or damage to property arising out of, or by reason of, any act, omission, operation or work of Engineer or its employees while engaged in the execution or performance of services under this Agreement. Said obligations to defend, indemnify, and hold harmless shall include, but not be limited to the obligation to defend, indemnify, and hold harmless the City in all matters where claims of liability against the City arise out of, relate to, are attributable to, are passive or derivative of, or vicarious to the negligent, intentional, or wrongful acts or omissions of Engineer, including but not limited to the failure to supervise, breach of warranty, the failure to warn, the failure to prevent such act or omission by Engineer, its employees, or its agents, and any other source of liability. Said obligations to defend, indemnify, and hold harmless shall be triggered upon the assertion of a claim for damages against City. On ten days' written notice from the City of Duluth, Engineer shall appear and defend all lawsuits against the City of Duluth growing out of such injuries or damages. Engineer shall not be required to indemnify City for amounts found by a fact finder to have arisen out of the sole negligent or intentional acts or omission of the City unless Engineer should fail to comply with its insurance obligations in this contract to the detriment of City, in which case Engineer shall indemnify, defend, and hold harmless the City for any and all amounts except amounts attributed to intentional, willful or wanton acts of the City.

This Section, in its entirety, shall survive the termination of this Agreement if any amount of work has been performed by Engineer. Nothing in this provision shall affect the limitations of liability of the City as set forth in Minnesota Statutes Chapter 466.

**Engineer understands this provision may affect its rights and may shift liability.**

Engineer shall defend and hold and save the City, its officers, employees, representatives and agents, and the Architect, harmless from liability of any nature or kind, including costs and expenses, for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the City, unless otherwise specifically stipulated in the Technical Specifications.

F. TERMINATION

1) This agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligation under this agreement through no fault of the terminating party; provided that no such termination may be affected unless the other party is given not less than fifteen (15) calendar days' prior written notice (delivered by certified mail, return receipt requested) of intent to terminate.

2) This agreement may be terminated in whole or in part in writing by the City for its convenience; provided that the Engineer is given (1) not less than fifteen (15) calendar days' prior written notice (delivered by certified mail, return receipt requested) of intent to terminate and (2) an opportunity for consultation with the City prior to termination.

3) Upon receipt of a notice of intent to terminate from the City pursuant to this agreement, the Engineer shall (1) promptly discontinue all services affected (unless the notice directs otherwise), and (2) make available to the City at any reasonable time at a location specified by the City all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have accumulated by the Engineer in performing this agreement, whether completed or in process.

4) Upon termination pursuant to this agreement, the City may take over the work and prosecute the same to completion by agreement with another party or otherwise.

G. LAWS, RULES AND REGULATIONS

The Engineer agrees to observe and comply with all laws, ordinances, rules and regulations of the United States of America, State of Minnesota, the City of Duluth and their respective agencies and instrumentalities which are applicable to the work and services to be performed hereunder.

H. INDEPENDENT CONTRACTOR STATUS

Nothing contained in this agreement shall be construed to make the Engineer an employee or partner of the City. The Engineer shall at all times hereunder be construed to be an independent contractor.

I. FEDERAL FUNDING

If Federal Funds (i.e. HUD, FEMA, Revenue Sharing) are utilized as a source of Project funding, the Engineer shall abide by the terms of all Federal requirements in the performance of duties hereunder.

J. AMENDMENT OF AGREEMENT

This agreement shall be amended or supplemented only in writing and executed by both parties hereto.

K. WAIVER OF CLAIM

The Engineer waives the right to make any claim whatsoever against any officer, agent or employee of the City for, or on account of, anything done, or omitted to be done, in connection with the drafting or ratification of this contract. In addition, if it is determined that this contract was not drafted or ratified in conformity with Minnesota or federal law, or City of Duluth ordinance or charter provisions, or if the contract includes obligations that are void as to Minnesota or federal law or City of Duluth ordinance or charter provisions, the Engineer agrees to raise no defense and make no claim against the City on the basis of ratification, laches, estoppel, or implied contract. **The Engineer understands this provision may affect its rights and may shift liability and specifically agrees to the same.**

**SECTION V. PAYMENT**

A. BASIS OF BILLING

City shall pay the Engineer based on hourly rates for all services rendered under Section II Phases A through G, an amount not to exceed the amount in Section V.C, including any and all Project-related expenses such as travel, reproduction of reports and drawings, tolls, mileage, etc. For the purposes of this agreement, the principals and employees of the Engineer and their hourly rates are set forth in Exhibit A.

B. PAYMENT FOR WORK COMPLETED

- 1) Monthly progress payments may be requested by the Engineer for work satisfactorily completed and shall be made by the City to the Engineer as soon as practicable upon submission of statements requesting payment by the Engineer to the City. When such progress payments are made, the City may withhold up to five percent (5%) of the vouchered amount until satisfactory completion by the Engineer of all work and services within a phase called for under this agreement. When the City determines that the work under this agreement for any specified phase hereunder is substantially complete, it shall release to the Engineer any retainage held for that phase.
- 2) No payment request made pursuant to subparagraph 1 of this Section V shall exceed the estimated maximum total amount and value of the total work and services to be performed by the Engineer under this agreement without the prior authorization of the City. These estimates have been prepared by the Engineer and supplemented or accompanied by such supporting data as may be required by the City.
- 3) Upon satisfactory completion of the work performed hereunder, and prior to final payment under this agreement, and as a condition precedent thereto, the Engineer shall execute and deliver to the City a release of all claims against the City arising under or by virtue of this agreement.
- 4) In the event of termination by City under Section IV.F., upon the completion of any phase of the Basic Services, progress payments due Engineer for services rendered through such phase shall constitute total payment for such services. In the event of such termination by City during any phase of the Basic Services, Engineer also will be reimbursed for the charges of independent professional associates and consultants employed by Engineer to render Basic Services, and paid

for services rendered during that phase on the basis of hourly rates defined in Exhibit A of this agreement for services rendered during that phase to date of termination by Engineer's principals and employees engaged directly on the Project. In the event of any such termination, Engineer will be paid for all unpaid additional services plus all termination expenses. Termination expenses mean additional expenses directly attributable to termination, which, if termination is at City's convenience, shall include an amount computed as a percentage of total compensation for basic services earned by Engineer to the date of termination as follows: 10% of the difference between the amount which the Engineer has earned computed as described in paragraphs A and B of this section and the maximum payment amount described in paragraph C of this section. The above applies only if termination is for reasons other than the fault of the Engineer.

C. TOTAL NOT TO EXCEED:

All payments under this Contract are not to exceed **One Hundred Forty Thousand, Ninety Dollars and 00/100 (\$140,090.00)**.

**SECTION VI. SPECIAL PROVISIONS**

The following exhibits are attached to and made part of this agreement:

- 1) Exhibit A, Engineer's Hourly Rates
- 2) Exhibit B, Engineer's Proposal

In the event of a conflict between the agreement and any Exhibit, the terms of the Agreement will be controlling.

**SECTION VII. COUNTERPARTS**

This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original as against any party whose signature appears thereon, but all of which together shall constitute but one and the same instrument. Signatures to this Agreement transmitted by facsimile, by electronic mail in "portable document format" (".pdf"), or by any other electronic means which preserves the original graphic and pictorial appearance of the Agreement, shall have the same effect as physical delivery of the paper document bearing the original signature.

*[Remainder of this page intentionally left blank. Signature page to follow.]*

IN WITNESS WHEREOF, the parties have hereunto set their hands on the date of attestation shown below.

**CITY OF DULUTH-Client**

**LHB, INC.**

By: \_\_\_\_\_  
Mayor

By: \_\_\_\_\_

Attest:

Its: \_\_\_\_\_  
Title of Representative

By: \_\_\_\_\_  
City Clerk

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Countersigned:

\_\_\_\_\_  
City Auditor

Approved as to Form:

\_\_\_\_\_  
City Attorney







# WORK PLAN

PROJECT NAME **DULUTH HEIGHTS STORMWATER STUDY & EKLUND AVE RECONSTRUCTION**  
 CLIENT **CITY OF DULUTH**  
 PREPARER **LHB**


PROJECT NUMBER **230610**  
 DATE **8/29/23**

# COST PROPOSAL

Work Task	Description	LHB											TOTAL HOURS	TOTAL EXPENSES	TOTAL LABOR COST PER TASK	TOTAL COST PER DELIVERABLE
		Jon Siiter	Megan Goplin	Adam Beissel	Adam Besse	Nathan Bruno	Rachel Johnson	Phil Barden	Paul Vogel	Tony Hanson	Joe Litman	Linda Nelson				
		Project Principal	Project Manager	Roadway Engineer	Utility Lead	Drainage Lead	Visual Quality Lead	Senior Technician	Land Surveyor	Survey Tech	Quality Manager	Admin				
<b>1.00</b>	<b>INITIAL SITE VISITS AND CONSULTATIONS</b>	4	72	21	10	17	16	22	0	0	2	0	164	\$ -	\$ 22,701.00	\$ 22,701.00
1.01	Kickoff meeting with City to review scope & design criteria		2	1		1									\$ 563.00	\$ 563.00
1.02	Gather and review existing information / Initial Site Visit		2	4	6	6		6							\$ 3,336.00	\$ 3,336.00
1.03	Project Management & Consultant Team Coordination	4	32								2				\$ 6,014.00	\$ 6,014.00
1.04	Bi-Weekly Status Meetings with City (Assume 12)		24	8	4	8									\$ 6,440.00	\$ 6,440.00
1.05	(2) Public Meetings		12	8		2	16	16							\$ 6,348.00	\$ 6,348.00
<b>2.00</b>	<b>RECONNAISSANCE, FIELD SURVEYS, &amp; GEOTECH INVEST.</b>	0	4	4	0	8	0	10	16	80	0	1	123	\$ 3,200.00	\$ 14,482.00	\$ 17,682.00
2.01	Field Survey & Mapping								8	68				\$ 3,200.00	\$ 8,444.00	\$ 11,644.00
2.02	Right-of-way and easement evaluation							6	8	12					\$ 3,300.00	\$ 3,300.00
2.03	Evaluation of Existing Retaining Walls (none assumed)														\$ -	\$ -
2.04	Permitting -DNR, Corps, FEMA		4			8									\$ 1,776.00	\$ 1,776.00
2.05	Geotechnical investigation (Braun) (assumes 14 borings)													See Sub-Consultants Below		
2.06	Identification of tree removals			2				2							\$ 434.00	\$ 434.00
2.07	Gopher State One Call and Mapping			2				2				1			\$ 528.00	\$ 528.00
<b>3.00</b>	<b>PRELIMINARY RECOMMENDATIONS AND COSTS</b>	0	14	24	24	21	0	24	0	0	0	0	107	\$ -	\$ 14,722.00	\$ 14,722.00
3.01	Analyze Records, Reports, and Data		4	8	8	8									\$ 4,120.00	\$ 4,120.00
3.02	Develop Design and Cost Alternatives (Assumes 2 Alternatives)		8	16	16	12		24							\$ 10,152.00	\$ 10,152.00
3.03	Meet with Project Engineer to Select Preferred Alternatives		2			1									\$ 450.00	\$ 450.00
<b>4.00</b>	<b>PRELIMINARY DESIGN (2 Scenarios)</b>	2	28	47	16	61	0	58	0	0	3	6	221	\$ -	\$ 28,914.00	\$ 28,914.00
4.01	Set Horizontal and Vertical Alignment Geometrics		8	12				24							\$ 5,068.00	\$ 5,068.00
4.02	Preliminary Roadway Typical Sections		2	8				12							\$ 2,456.00	\$ 2,456.00
4.03	Preliminary Cross Sections		2	4				8							\$ 1,588.00	\$ 1,588.00
4.04	Preliminary Water Layout				16			8							\$ 3,712.00	\$ 3,712.00
4.05	Preliminary Stormwater Layout					12		6							\$ 2,376.00	\$ 2,376.00
4.06	Right-of-way and Easements		2	6											\$ 982.00	\$ 982.00
4.07	Hydrology and Hydraulics/Drainage Study		4			40					1	3			\$ 6,925.00	\$ 6,925.00
4.08	Preliminary Engineering Design Report	2	8	16		8					2	3			\$ 5,244.00	\$ 5,244.00
4.09	Meet with Project Engineer to Select Preferred Alternative		2	1		1									\$ 563.00	\$ 563.00
<b>5.00</b>	<b>PRELIMINARY PLANS (30%)</b>	0	30	71	40	42	0	122	0	0	0	0	305	\$ -	\$ 38,603.00	\$ 38,603.00
5.01	Title Sheet		1	1				4							\$ 681.00	\$ 681.00
5.02	General Layout		1	2				4							\$ 794.00	\$ 794.00
5.03	Statement of Estimated Quantities		2	8	4	8		8							\$ 3,928.00	\$ 3,928.00
5.04	Typical Sections		2	8				12							\$ 2,456.00	\$ 2,456.00
5.05	Existing Conditions and Removals (3 sheets @ 20' Scale)		4	10		2		20							\$ 4,110.00	\$ 4,110.00
5.06	Construction Plan and Profile (5 sheets @ 20' scale)		8	20	20	16		40							\$ 13,572.00	\$ 13,572.00
5.07	Drainage Profiles		2	6		16		6							\$ 3,942.00	\$ 3,942.00
5.08	Cross Sections @ 50'-4 per sheet (15 sheets)		6	8				20							\$ 3,896.00	\$ 3,896.00
5.09	Phasing and Temporary Water Plans		4	8	16			8							\$ 5,224.00	\$ 5,224.00
<b>6.00</b>	<b>COST ESTIMATES (5 Total)</b>	2	6	12	0	0	0	0	0	0	1	0	21	\$ -	\$ 2,843.00	\$ 2,843.00
6.01	Preliminary Estimates (2 Scenarios)		2	4											\$ 756.00	\$ 756.00
6.02	Final Estimates (2 Scenarios)	1	2	4											\$ 946.00	\$ 946.00
6.03	30% Design Estimate (1 Scenario)	1	2	4							1				\$ 1,141.00	\$ 1,141.00
<b>TOTAL HOURS</b>		<b>8</b>	<b>154</b>	<b>179</b>	<b>90</b>	<b>149</b>	<b>16</b>	<b>236</b>	<b>16</b>	<b>80</b>	<b>6</b>	<b>7</b>	<b>941</b>	<b>SUMMARY</b>		
COST PER HOUR		\$ 190	\$ 152	\$ 113	\$ 180	\$ 146	\$ 104	\$ 104	\$ 180	\$ 103	\$ 195	\$ 94		TOTAL LABOR	\$ 122,265.00	
<b>TOTAL COST</b>		<b>\$ 1,520</b>	<b>\$ 23,408</b>	<b>\$ 20,227</b>	<b>\$ 16,200</b>	<b>\$ 21,754</b>	<b>\$ 1,664</b>	<b>\$ 24,544</b>	<b>\$ 2,880</b>	<b>\$ 8,240</b>	<b>\$ 1,170</b>	<b>\$ 658</b>		TOTAL EXPENSES	\$ 3,200.00	
														SUB CONSULTANTS (BRAUN-GEOTECH)	\$ 14,625.00	
														<b>TOTAL FEE</b>	<b>\$ 140,090</b>	

EXHIBIT B

**APPENDIX A - SUBMISSION COVER SHEET**  
**CITY OF DULUTH**  
**RFP# 23-99593**  
**Engineering Services for Duluth Heights Stormwater Study and Eklund Ave.**  
**Reconstruction, Duluth, Minnesota**

<b>Bidder Information:</b>	
Submitter Name	LHB, Inc.
Mailing Address	21 West Superior Street, Suite 500, Duluth, MN 55802
Contact Person	Jon Siiter
Contact Person's Phone Number	218.279.2456
Contact Person's E-Mail Address	jon.siiter@LHBcorp.com
Federal ID Number	410904334
Authorized Signature	
Name & Title of Authorized Signer	Jon Siiter, Engineering Principal- Bridges & Structures
Email of Authorized Signer	jon.siiter@LHBcorp.com



Purchasing Division  
Finance Department

Room 120  
411 West First Street  
Duluth, Minnesota 55802

218-730-5340

purchasing@duluthmn.gov

**Addendum 1**  
**Solicitation 23-99593**  
**RFP Engineering Services for Duluth Heights Stormwater Study and**  
**Eklund Ave. Reconstruction**

This addendum serves to notify all bidders of the following changes to the solicitation documents:

**RFP Documents:**

**The “Project Overview” section is amended as follows:**

The City of Duluth is interested in retaining a consultant for preliminary survey and preliminary engineering to the 30% design stage for the reconstruction of Eklund Ave, from Swan Lake Road to Maple Grove Road. Design services are also requested for a preliminary engineering design report including a stormwater/drainage study for the area bounded by Walnut Street, Swan Lake Road, Maple Grove Road and Joshua Avenue. Final design and bidding phases ~~will~~ **may** be amended into the contract after a decision is made on the storm water and road design; **however, the City also reserves the right to issue a separate RFP for final design at its sole discretion.** The results of the stormwater/drainage study will be incorporated into the plans for Eklund Ave., and used in future storm sewer and road improvement projects not part of this RFP. See attached location maps. The Eklund Ave project is planned to be bid in February of 2025 and constructed in the summer of 2025.

**The following is added to the “Scope of Services” section:**

e. The Consultant should plan on bi-weekly design progress meetings with City staff to provide updates on the design and discuss issues. The Consultant is responsible for preparing exhibits, agenda, and minutes for each meeting. Progress meetings can generally be virtual but some in-person meetings at City Hall should be expected.

**The following is added to the project “General Project Scope” section:**

Primary goals of the project include:

1. **Traffic Calming:** as part of the preliminary design and layout work for both Scenarios 1 and 2, the Consultant shall identify alternatives for traffic calming along this section of Eklund Avenue for review and consideration by the City and the public as part of the

public involvement process. To achieve this goal, the City will consider the use of reduced (10-ft) lanes with B624 curb and gutter for the urban scenario and 10-ft lanes and narrow shoulders for the rural scenario. In addition, the Consultant will evaluate and incorporate other traffic calming methods into the design, as appropriate, for each scenario including, but not limited to, bump outs, pinch points, street trees, pavement markings, etc.

2. **Pedestrian Accommodation:** for both scenarios, safe pedestrian accommodation must be provided. At a minimum, for the urban scenario, a standard City sidewalk shall be provided on one side of the street. For the rural scenario, both a widened roadway shoulder and a separate, off roadway pedestrian path shall be considered as separate options.
3. **Stormwater Management:** for both scenarios, improvements to the existing Eklund Avenue stormwater system are to be provided. For the rural scenario, improvements to existing roadway ditches, yard drainage, driveways, and intersections should be incorporated into the layout and design for Eklund Avenue. For the Eklund Avenue urban conversion scenario and where practicable, it is anticipated that the Eklund Avenue roadway profile will need to be modified to promote drainage to the new curb and gutter; new catch basins and storm sewer will be required to intercept both road and yard drainage and these new concentrated flows must be discharged to outlet locations that are capable of receiving them without creating flooding, erosion, or nuisance conditions downstream.

For both scenarios, the Consultant is responsible for fully assessing the existing drainage condition on Eklund Avenue for issues and deficiencies and identifying suitable discharge points for the proposed stormwater management system. In some cases, suitable discharge points may require evaluation, study, and work beyond the roadway limits of the project and the Consultant is responsible for investigating, developing, and identifying such discharge options and related work off the corridor as part of the preliminary design. Similarly, in order to meet the permanent stormwater treatment requirements of the City MS4 permit and the general requirements related to stormwater discharges to Chester and Miller Creeks, the selected Consultant should expect to evaluate both on-corridor and regional stormwater treatment options. The larger, neighborhood wide stormwater/drainage study area identified in the RFP is included to these ends.

**The “Cost Proposal Contents” section is revised as follows:**

The Consultant must include a not to exceed total project cost, as well as subtotals for design services and bidding and any sub consultant fees.

### **Responses to Bidder Questions:**

Question: Are any of the design considerations or deliverables listed in Sections 5 and 6 to be deferred to the final design phase (e.g. cross sections, driveway profiles, construction limits, etc.)?

Response: All of the design considerations and deliverables listed in these Sections are required for this preliminary engineering design phase and should be included in the Consultant's proposed work plan and fee. To be clear, the City is expecting the selected Consultant to deliver a rigorous and robust preliminary design effort and geometric layouts that fully evaluate the issues, challenges, and opportunities for both the urban conversion option (Scenario 1) and the rural option (Scenario 2) and to provide comprehensive design solutions therefor.

Question: Looking for clarity on the lead service line scope. RFP notes there are no lead services on public side. Are you expecting we take an inventory for private side? Maybe even go in each residence like we did for the lead service project?

Response: No inventory or investigation is required for the services as part of this design phase.

Question: I see you have two public meetings called for. Would both be during this phase?

Response: Yes – two public meetings are included in this phase of the design.

Question: Are you expecting geotechnical work to be completed during this phase? I think so, simply verifying.

Response: Yes.

Question: Lastly, will you just need the one engineers estimate for each scenario when 30% plans completed?

Response: Five construction cost estimates are required per the RFP (see Section 4.d and Section 7).

Question: Are there any Duluth Specific Stormwater plans that need to be prepared? Or simply a SWPPP that needs to comply with the MS4?

Response: As described in the RFP, the preliminary design should include full hydrology and hydraulics analyses for each scenario to layout the proposed stormwater system that complies with State Aid requirements, the City's MS4, and the applicable stormwater regulatory requirements. A SWPPP is not required for this design phase.

Question: On page 9 of the RFP, under Cost Proposal Contents, you ask for "Subtotals for design services and bidding" – Is this a typo? My understanding of the RFP is that we are providing cost proposal for all work up to the 30% plans, and if allowed, would prepare an amendment to continue with design and construction services.

Response: Section has been revised as part of this addendum.

Question: The right-of-way on Eklund Avenue is 50-ft. Is the City acquiring additional right-of-way on Eklund Avenue?

Response: The preliminary design layout and 30% plans should seek to limit off right-of-way impacts to the greatest extent practicable. Where such impacts are unavoidable, the Consultant shall identify temporary and permanent easement needs to complete the work on the layouts and in the 30% design plans. No new permanent road right-of-way will be acquired.

Please acknowledge receipt of this Addendum by including a copy of it with your proposal. The pages included will not count toward any page limitation, if any, identified in the RFP.

Posted: **August 22, 2023**



ENGINEERING SERVICES FOR DULUTH  
HEIGHTS STORMWATER STUDY AND  
EKLUND AVE. RECONSTRUCTION

RFP 23-99593

CITY OF DULUTH

August 29, 2023

**ORIGINAL**







August 29, 2023

Brad Scott, PE,  
Senior Engineer

City of Duluth -  
Engineering Division

411 W. 1st Street, Room  
240 City Hall

Duluth, Minnesota  
55802-1191

bscott@duluthmn.gov

## RE: ENGINEERING SERVICES FOR DULUTH HEIGHTS STORMWATER STUDY AND EKLUND AVE. RECONSTRUCTION

Eklund Avenue has its challenges. This rural, primarily residential street has bituminous pavement in poor condition, a high traffic count (likely due to its use as a cut-through to the Miller Hill Mall), a lack of safe and accessible crossings, and a need for improved drainage, due to both flooding owners' property and the designated trout streams of Miller Creek and Chester Creek. The opportunity to design solutions for these challenges excites us because our team has the experience and finesse to create a successful design to resolve these issues. LHB has teamed with Braun Intertec to offer the best team to the City of Duluth. The following details the advantages our team brings to the City:

- **No Worries** – Our team has successfully designed, bid, and completed numerous similar stormwater and road projects for the City of Duluth. Our team understands the conditions along Eklund Avenue and the possible issues to consider for the two scenarios, as shown in the following maps we developed using the City's GIS data; and to help you manage your budget, we will develop accurate cost estimates for each scenario.
- **Trusted Partner** – We enjoy working with you! The proposed team has worked with City staff for decades. We understand the City's requirements so the designs developed will be thorough. Based on our past collaborations, you understand the strong work ethic and commitment we bring to your projects.
- **Knowledge of City Specifications and Guidelines, and State Aid Standards and Requirements** – As shown in the Project Examples, the team can start work immediately due to our knowledge of City Specifications and what is needed to meet State Aid Standards and Requirements.
- **This Project and the City are Viewed Positively** - Your reputation is our reputation. A successful project incorporates your needs and those of the residents. Our strong communication skills and visual graphics capabilities ensure the City and the stakeholders' ideas and needs are considered during the design process.

We appreciate the opportunity to present our proposal to the City. We look forward to hearing from you to begin the process of improving Eklund Avenue for the betterment of the community. Thank you for your consideration of our submittal.

LHB, Inc.



Jon Siiter, PE  
Project Principal  
Jon.Siiter@LHBcorp.com  
d 218.279.2456 c 218.590.0048



Megan Goplin, PE  
Project Manager  
Megan.Goplin@LHBcorp.com  
d 218.249.7152 c 608.239.9471

21 West Superior Street, Suite 500, Duluth, MN 55802  
General 218.727.8446 Fax 218.729.2507 | www.LHBcorp.com

## 1. GOALS AND OBJECTIVES

The City of Duluth (City) is requesting engineering proposals for preliminary design of the reconstruction of Eklund Avenue, extending from Swan Lake Road to Maple Grove Road. The design services would also include an engineering report and stormwater/drainage study for the surrounding contributing area. Eklund Avenue is a Municipal State Aid Street (MSAS 214) and therefore will be designed to meet State Aid standards. LHB has worked on several similar projects in the City of Duluth and greater Minnesota and as such, has a thorough understanding of the requirements of the City of Duluth and MnDOT State Aid.

The general goals and objectives for the project include:

- Treat and manage stormwater;
- Improve safety for pedestrians and bicyclists;
- Improve accessibility for all users;
- Improve the function, performance, and durability of Eklund Avenue through reconstruction;
- Engage and collaborate with stakeholders, including church leaders, residents, and bike and ped advocacy groups; and
- Manage the project design and probable construction costs to meet the City's budget, schedule, and requirements.

### Existing Condition

Eklund Avenue is a narrow, rural roadway. The paved width is approximately 22 feet, and it is in very poor condition. There is no parking lane, however there are 3 to 4-foot-wide gravel shoulders on each side. Shallow ditches convey stormwater between shallow culverts under driveways. Overhead utilities run along the west side of the roadway. The existing right-of-way is 50-feet-wide.



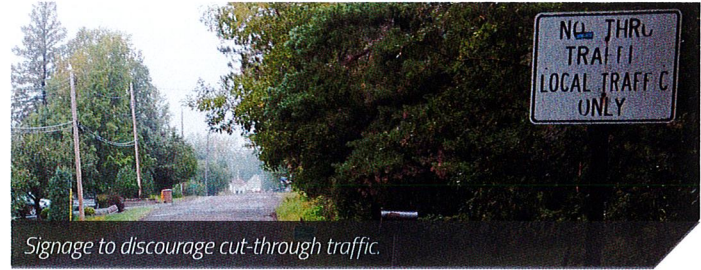
*Eklund's pavement is in poor condition with shallow stormwater ditches.*

The terrain is mostly flat along Eklund Avenue. The roadway is generally straight except for a sharp turn at the intersection with Page Street. The horizontal curve at this location may not meet State Aid standards and a variance may be needed. The team at LHB will identify the need for variances in the preliminary plans and engineering report, including justifications as to why the standard cannot be met.

Eklund Avenue runs through a residential neighborhood and most residents have off-street parking. Emmanuel Baptist church is located at the corner of Farrell Road and Eklund Avenue. The church parking lot is located on the opposite side of Eklund. An enhanced pedestrian crossing, such as a raised crosswalk, may be warranted at this location. The traffic control through the corridor is generally two-way stops on the side streets. Eklund Avenue currently has one DTA bus route, however this route is planned to be discontinued this fall when the DTA implements their Better Bus Blueprint.

A higher-than-expected volume of traffic along the corridor was observed during a site visit. This route has been used for cut-through

traffic for years, which has been identified as an issue. In 2006, in an attempt to mitigate cut-through traffic, "NO THRU TRAFFIC LOCAL TRAFFIC ONLY" signs were posted along the route; however, signage alone was not effective.



*Signage to discourage cut-through traffic.*

With this reconstruction project, there is the opportunity to incorporate more impactful traffic calming techniques into the design. Physically constraining the roadway through narrower lanes, curb and gutter, and bumpouts tends to slow drivers down, making the corridor safer for pedestrians and bicyclists and making it a less attractive option for cut-through traffic.

### Stormwater Study

A study will be performed to determine the best way to convey and treat stormwater for Eklund Avenue and the surrounding neighborhood. The study will provide recommendations for the Eklund Avenue reconstruction project, as well as for future projects in the study area. The neighborhood surrounding Eklund Avenue is in the watershed of two waterways, Miller Creek to the west and Chester Creek to the east. The study will include all areas that are draining to a common discharge point. The common discharge point for the study area in the Miller Creek watershed (Discharge Point #1) is a culvert to the south of the intersection of Joshua Avenue and West Ideal Street. The common discharge point for the study area in the Chester Creek watershed (Discharge Point #2) is located where Chester Creek crosses Swan Lake Road.

Areas that could be used for regional treatment have been identified on the Project Issues and Understandings Map in this proposal. These areas are owned by the state, county, or city. Each location will be evaluated based on drainage area, wetlands and access, to determine feasibility of use for a regional storm basin.

Two scenarios will be considered for the conveyance of stormwater for the Eklund Avenue project. Scenario 1 will convert the roadway to an urban section with curb and gutter, drained by a storm sewer. Scenario 2 will have the corridor remain as a rural section, with ditch sections and culverts. Both scenarios will assume all other streets in the study area, other than Eklund Avenue, remain as is.

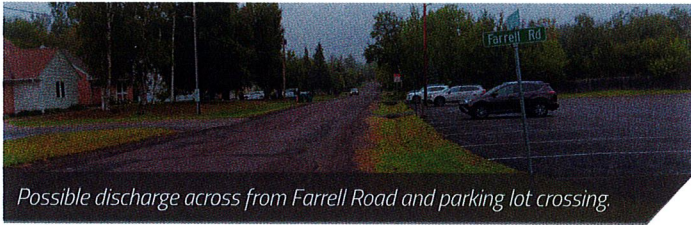
- Scenario 1 will add curb and gutter and storm sewer to the roadway. Discharge points for the storm sewer will roughly match the location of the crossing culverts. Each storm sewer discharge point will be evaluated to determine if improvements or relocation of the discharge point will be needed. Area drains will be added to ensure the roadway will not trap storm water in yards that are currently drained by the roadway ditch.
- Scenario 2 will keep similar drainage patterns to the existing roadway. The project will improve the ditch sections to meet State Aid standards and allow for the drainage of the road section. The study will determine drainage areas and adequacy of the existing

## 1. GOALS & OBJECTIVES, CONT.

system of culverts. Most of the culverts for the road are shallow with minimal cover. The project will consider ways of improving cover over the culverts including using arch pipe, deepening the ditches, and raising the profile of the roadway.

The study will consider locations for stormwater treatment basins. These basins will likely be biofiltration basins, due to clay type soils in the area and the need for cold water discharge. The northwest end of Farrell Road has been identified as a potential location for a stormwater treatment basin (see Project Issues and Understanding Map). This area, along with other areas, will be studied to determine the feasibility of the sites for stormwater treatment.

There are three existing discharge points for Eklund Avenue which correspond to three crossing culverts. These are located approximately 200 feet north of Maple Grove Road, 150 feet southwest of Farrell Road, and 50 feet southwest of Dale Place (See Project Issues and Understanding Map). The discharge at Farrell Road and Dale Place drains directly to residents' yards. These discharge points will be evaluated to determine if they can be moved or improved. In both scenarios, existing and proposed drainage areas will be roughly equivalent for each discharge point. However, Scenario 1 will likely be more efficient at draining the project, which may result in more drainage to the discharge points.

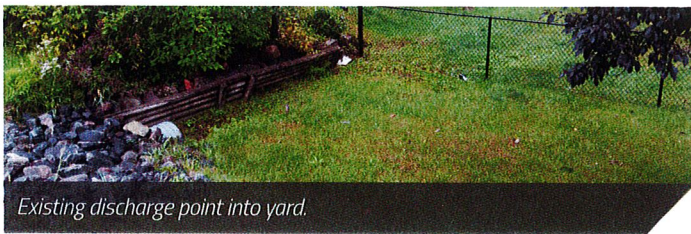


*Possible discharge across from Farrell Road and parking lot crossing.*

### Preliminary Roadway Design

The preliminary design for Eklund Avenue will look at two options which include: reconstructing the street as an urban section with curb and gutter (Scenario 1); and maintaining it as a rural section, similar to its current design (Scenario 2). Pedestrian facilities and improvements are also a key part of the project.

For the urban scenario, we will look to add concrete sidewalk and pedestrian ramps to meet ADA requirements. The use of bumpouts will also be explored as part of this option. The urban scenario will require the addition of curb inlets and conveyance piping as well as stormwater treatment BMPs identified in the stormwater study.



*Existing discharge point into yard.*

The rural scenario will reconstruct the roadway with shoulders and ditches. This concept may also explore the feasibility of a multi-use path on one side or wider shoulders to accommodate pedestrians and bikes.

It is understood that specific funding sources have not been determined at this time and that State Aid funds would likely be used if available. Through our previous experience working on State Aid projects, we understand the costs that can typically be included as 'participating.' Therefore, we will provide a cost breakdown in the 30% cost estimate showing what would be considered participating

roadway costs and non-participating costs (such as water main). This proposal assumes that a State Aid Hydraulics submittal will not be required as part of this preliminary design phase, however our team has prepared many of these submittals and could provide this service if selected for the final design phase.

### Utility Coordination

Robust utility coordination will be an important part of the project. There are overhead utilities along the west side of Eklund Avenue. LHB will submit a Gopher State One-Call design ticket to request maps of third-party utilities in the area and compile a list of utility contacts. The preliminary plans will show the utility information and identify any relocations that would be needed. In the past, LHB has worked closely with third party utility companies in the area to identify and mitigate potential conflicts. We strive to notify owners of projects and give them a chance to coordinate relocations to avoid costly changes during construction.

### Site Investigation, Survey, and Geotechnical

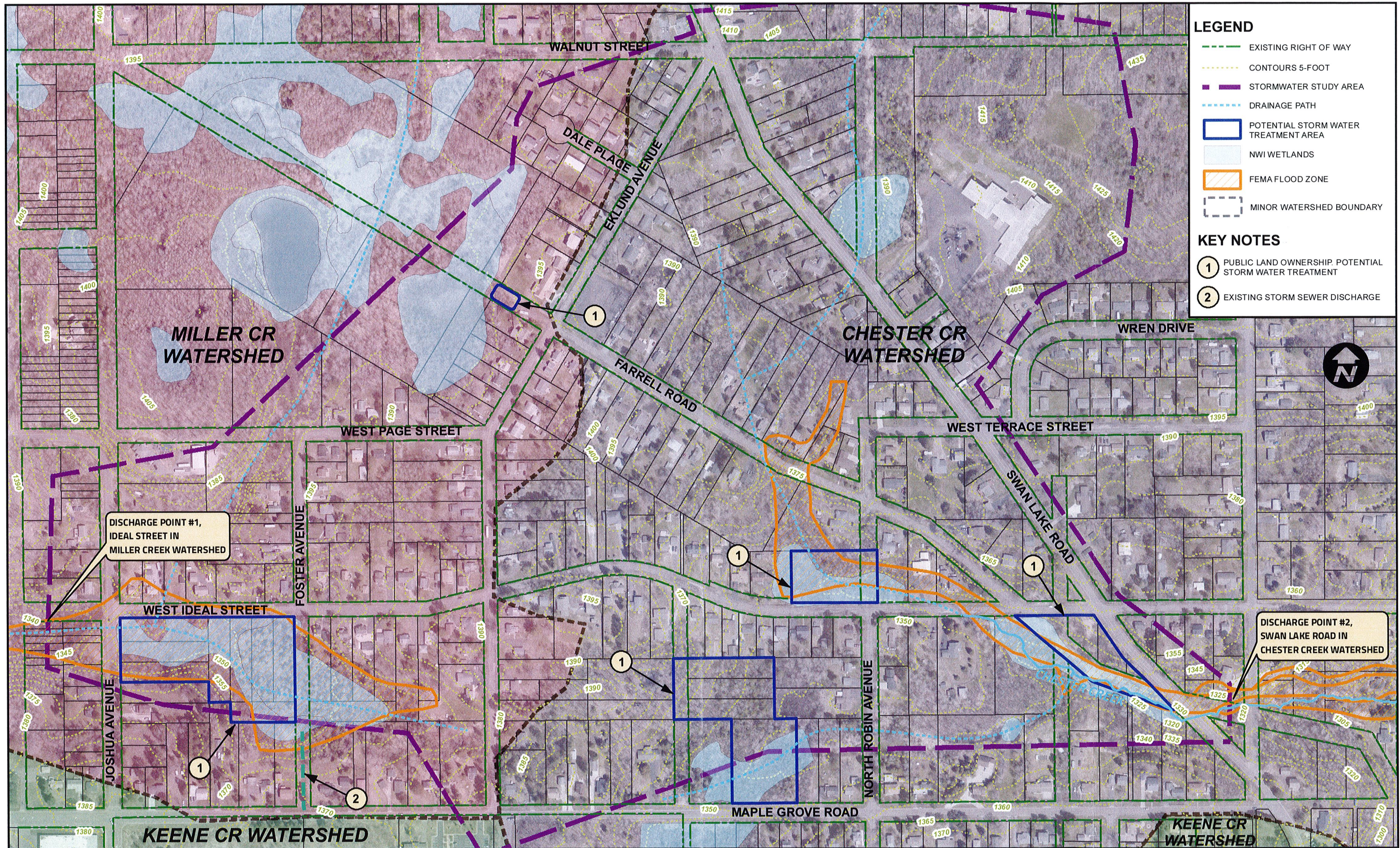
LHB will collect a full topographic survey for the project necessary to complete the design, including all surface features within the project limits. The survey will provide enough information for the design team to coordinate tie-ins at the project perimeter, as well as providing Level 3 ADA ramp design at all intersections. We will also provide right-of-way mapping based on existing monuments and documents. Having accurate right-of-way mapping early in the process, as a way to identify the need for easements, will be important. Our team can provide easement language and exhibits necessary to support obtaining any required easements when the project moves into the final design phase. The survey will be supplemented with information provided by the City in the form of GIS utility mapping and record drawings, as well as information gathered during the utility coordination process and site visits, to create a complete base map.

The only retaining wall that exists is a small timber wall located at a pipe outfall. This would most likely be removed/replaced with any reconstruction option, so evaluation of its condition will not be necessary. If retaining wall design is part of the final scope, LHB can provide these services. Our team has used small walls/curbs on many projects to reduce yard impacts to residents.

We have partnered with Braun Intertec to provide geotechnical services for the project. Braun's investigation will include soil borings every 200 feet. The findings will be summarized in a geotechnical report, along with recommendations for utility excavation, design, construction of roadway, estimated R-value, and pavement design.

### Stakeholder Participation

Our team recognizes the importance of engaging with stakeholders. This project traverses a mostly residential neighborhood and stakeholders include residents and Emmanuel Baptist church along with bike and ped advocacy groups. We expect to hear concerns about cut-through traffic, speeding, and the lack of pedestrian facilities. We will likely also hear a desire to preserve mature trees along the project and reduce yard impacts. We anticipate two public engagement meetings as part of this preliminary design phase. Our team will provide exhibits and presentation materials for these meetings. LHB has led the public engagement process on several projects throughout the City of Duluth and is committed to engaging with stakeholders in a respectful way to ensure their concerns are heard and incorporated into the design where feasible.



- LEGEND**
- EXISTING RIGHT OF WAY
  - CONTOURS 5-FOOT
  - STORMWATER STUDY AREA
  - DRAINAGE PATH
  - POTENTIAL STORM WATER TREATMENT AREA
  - NWI WETLANDS
  - FEMA FLOOD ZONE
  - MINOR WATERSHED BOUNDARY

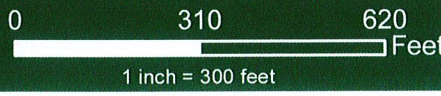
- KEY NOTES**
- 1 PUBLIC LAND OWNERSHIP. POTENTIAL STORM WATER TREATMENT
  - 2 EXISTING STORM SEWER DISCHARGE

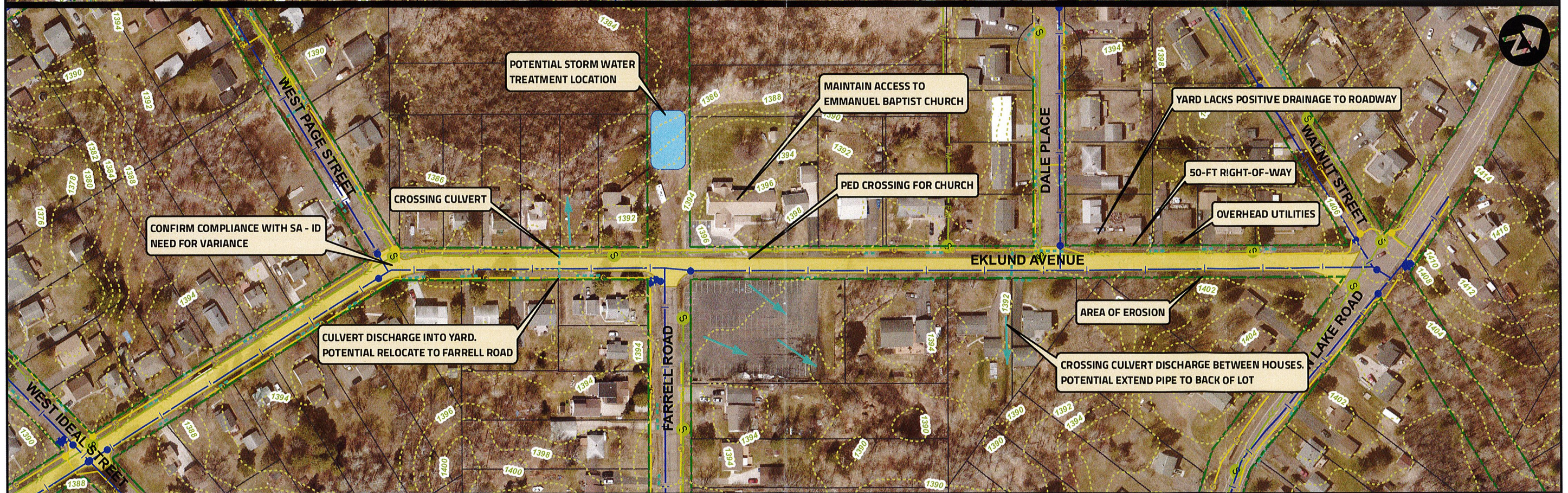
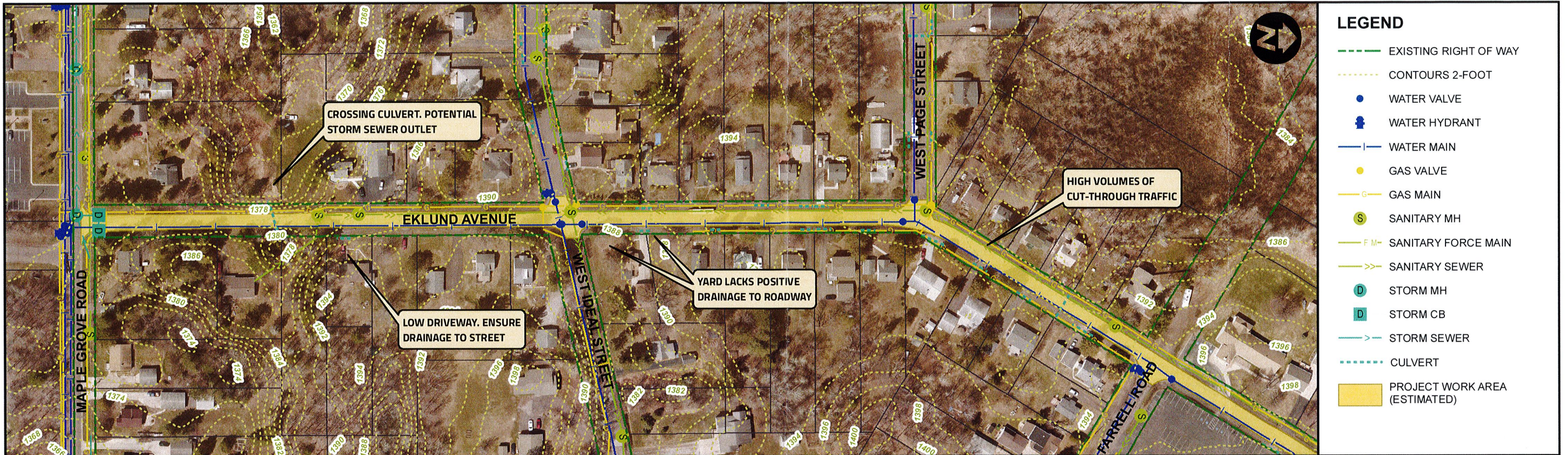
DISCHARGE POINT #1,  
IDEAL STREET IN  
MILLER CREEK WATERSHED

DISCHARGE POINT #2,  
SWAN LAKE ROAD IN  
CHESTER CREEK WATERSHED

Eklund Avenue (MSAS 214) between Maple Grove Road (MSAS 201)  
and Swan Lake Road (MSAS 211)  
(City Project No. 2091)

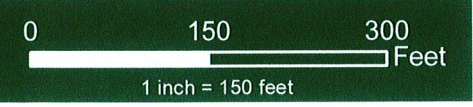
# PROJECT ISSUES AND UNDERSTANDING





Eklund Avenue (MSAS 214) between Maple Grove Road (MSAS 201) and Swan Lake Road (MSAS 211) (City Project No. 2091)

# PROJECT ISSUES AND UNDERSTANDING



# 1. GOALS & OBJECTIVES, CONT.

## Street Lighting

It is assumed that new street lighting will not be part of the project and that existing lighting on wood poles will be maintained. If street lighting is added to the scope, our team can provide that design as an additional service. This would include coordination with the City to select appropriate dark sky fixtures and performing lighting calculations to ensure required light levels are met.

## Phasing and Traffic Control

Coordination and phasing will be important to ensure disruptions to residents are reduced to the extent possible. Coordination with

stakeholders will help the team understand the critical routes for residents, and work to stage the project in a way that minimizes disruptions where possible. LHB will also provide a temporary water plan with our 30% submittal that will aim to minimize shutdowns during the watermain replacement work.

The team at LHB is pleased to provide this proposal for the opportunity to be a part of improving our community through this important project. Our work in the community over the years, along with our knowledge of the City of Duluth and State Aid requirements, make us uniquely qualified to deliver a coordinated design and a successful project.

# 2. EXPERIENCE:

PROJECT	ROAD	PRELIMINARY PLAN	COST EST.	PUBLIC ENGMT.	STATE AID	WATER/SANITARY	STORMWATER
CSAH 4 (Rice Lake Road) Storm Sewer			X		X		X
Woodland Avenue Storm Sewer			X		X		X
Morris Thomas Reconstruction	X	X	X	X	X		X
Glenwood & Snively Roundabout			X		X	X	X
East 1st Street & Alley Reconstruction	X		X	X		X	X
Babcock Trail		X	X	X	X		X
TH 61 Grand Marais Reconstruction	X	X	X	X		X	X
Superior Street Reconstruction	X	X	X	X	X	X	X
5th Avenue in Grand Marais	X	X	X	X	X	X	X
Vision Northland 2nd Street Reconstruction	X		X	X		X	X



## MORRIS THOMAS ROAD (CSAH 56) BETWEEN HAINES ROAD & PIEDMONT AVE.

St. Louis County | Duluth, MN



Due to the deterioration of the curb, gutter, and pavement on Morris Thomas Road (CSAH 56) St. Louis County selected LHB to design a complete reconstruction. The project is coordinated with the City of Duluth who is replacing city utilities including a large diameter gas main, water, and sanitary sewer. LHB's services included: project management, geometric layout and design, pavement design, SWPPP, hydraulics design, utility coordination and identification, identification of construction limits, temporary traffic control layout and staging, pavement markings and traffic signing, and storm sewer. Stormwater treatment vaults were also incorporated into the design. The full storm sewer replacement included submitting a hydraulic report to MnDOT for cost participation, and the full design plan was reviewed by MnDOT District 1 since the project was funded by State Aid. Public engagement was a critical part of the project to determine right-of-way and property lines, replace driveways, and coordinate access during the two construction phases.



## WOODLAND AVE STORM SEWER

St. Louis County | Duluth, MN



As part of the State Aid Funded reconstruction of Woodland Avenue (CSAH 9), LHB designed the urban storm sewer system for the County and coordinated with MnDOT and the City of Duluth. St. Louis County's reconstruction ranged from 140' south of Anoka Street to 200' north of Calvary Road, Calvary Road from Woodland Avenue to 500' west, and West Austin Street from Calvary Road east 400'. The new roadway layout narrowed Woodland Avenue by 1' to provide 5' sidewalks for improved pedestrian safety and access. LHB provided 90% storm sewer design including submitting a hydraulic report to MnDOT for cost participation. The hydraulic report determined the percent of storm sewer eligible for State Aid funding, including reconstruction credits and confirmed percentages with MnDOT's storm sewer division. LHB coordinated with the City of Duluth to determine utility conflicts that coincided with the City's replacement of water main and sanitary sewer service. The project included approximately one mile of new street construction and the stormwater design included plans for over 100 new catch basins and manholes, 4,800 feet of new storm sewer main and catch basin leads, driveway culverts, and storm sewer / culvert outfalls. LHB closely collaborated with the County who prepared the roadway design plans and the City of Duluth who prepared plans for the project water system and utilities. A rigorous QA/QC plan ensured coordination and eliminated pipe conflicts.

## 2. EXPERIENCE CONT.:



### CSAH 4 (RICE LAKE ROAD) STORM SEWER, CULVERT, POND DESIGN St. Louis County | Duluth, MN



St. Louis County selected LHB to design the storm sewer, stormwater pond, and Chester Creek Crossing for the reconstruction of Rice Lake Road (CSAH 4) between Arrowhead Road and 1000' north of Technology Drive. As part of the State Aid Funded reconstruction, LHB designed the storm systems in coordination with the City of Duluth. Constructed in 2020, LHB provided 90% storm sewer design including submitting a hydraulic report to MnDOT for cost participation. The hydraulic report determined the percent of storm sewer eligible for State Aid funding, including reconstruction credits and confirmed percentages with MnDOT's storm sewer division. LHB coordinated with the City of Duluth to determine utility conflicts that coincided with the City's replacement of water main and sanitary sewer service. LHB designed the new box culvert under Rice Lake Road to support Chester Creek, a designated trout stream. Temporary erosion and sediment controls under the special waters provision of the stormwater permit were applied.



### GLENWOOD & SNIVELY ROUNDABOUT St. Louis County | Duluth, MN



LHB provided engineering services with WSB for the storm sewer and site drainage design for the reconstruction and modernization of an all-way-stop controlled intersection at Snively Road and Glenwood Street. The project was designed to State Aid standards. A new roundabout was constructed at the intersection, and LHB designed the storm sewer, converting a rural section into an urban section with the addition of curb and gutter and storm sewer inlets. The project improved traffic flow, and increased safety and accessible pedestrian and cyclist crossings at the intersection.



### 5TH AVENUE Cook County | Grand Marais, MN



LHB provided engineering services for the reconstruction of County State Aid Highway 15 (CSAH 15) from Trunk Highway 61 to County State Aid Highway 7 (5th Street) in Grand Marais. The project consisted of full-depth pavement reconstruction; replacement of curb and gutter; storm sewer; concrete walks and ADA compliant pedestrian ramps. The project was designed with County and State Aid requirements. The roadway was in poor and deteriorating condition. The project included improving the drivability of the street; reducing maintenance; and improving drainage, and replacing deficient storm sewer, sanitary sewer, and water infrastructure. Other goals included determining the need and designing on-street parking and walks along the project corridor.



### BABCOCK TRAIL (CSAH 73) Dakota County | Inver Grove Heights, MN



LHB was hired by Dakota County to look at the feasibility of building a multi-use trail along Babcock Trail (CSAH 73) in Inver Grove Heights from Upper 55th St to 63rd Street. Babcock Trail is currently a rural roadway section with narrow shoulders and ditching on both sides. Salem Elementary School is along this route but the corridor lacks pedestrian facilities and has been identified by a Safe Routes to School Study as an area of concern. LHB studied the corridor and looked at the feasibility of adding a multi-use trail without reconstructing the roadway. If feasible, we would complete 30% design for the County. The study included meeting with stakeholders, including representatives from the elementary school and from the City of Inver Grove Heights. LHB evaluated the impacts to stormwater drainage, third party utilities and the driveways and yards of residents. The study also looked at sight distance along the corridor and right-of way needs to build the trail.



### 1ST STREET RECONSTRUCTION City of Duluth | Duluth, MN



The project involved replacing an existing stone retaining wall on 1st Street with a new cast-in-place concrete retaining wall, water main and utility replacement, sanitary sewer improvements including CIPP lining and services, new and reconnected storm sewer, ADA improvements, bituminous mill and overlay, new bituminous pavement on 1st Street and the 1st Street Alley, and reconstructing sidewalk, driveway aprons, and curb and gutter.

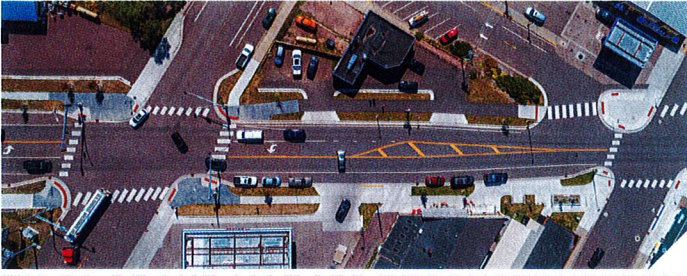


### VISION NORTHLAND SECOND STREET RECONSTRUCTION Essentia Health/City of Duluth/ Mn Power | Duluth, MN



As part of the construction of Essentia Health's new Vision Northland campus expansion, LHB designed the reconstruction and provided construction inspection of Second Street between 4th and 6th Avenues East, and on 4th Avenue from Superior Street to Second Street. The project involved traffic coordination, utilities, and replacing the concrete paving at the intersections.

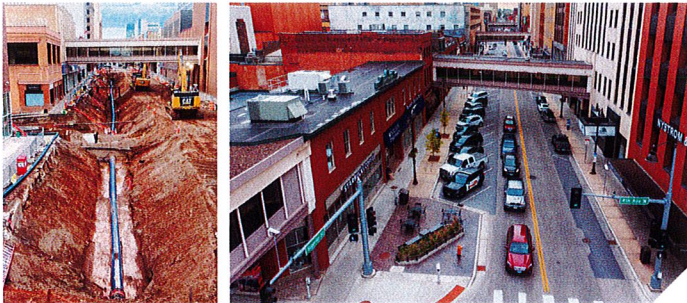
## 2. EXPERIENCE CONT.:



### TH 61 GRAND MARAIS RECONSTRUCTION MnDOT | Grand Marais, MN



Trunk Highway 61 is the key regional corridor connecting local communities and serving as a vital economic link for businesses, industry, and tourism along Lake Superior's North shore. The project reconstructed the roadway through the downtown core of Grand Marais. 3/4-mile of rural commercial corridor was converted to an urban section including new public utilities and ADA-compliant pedestrian and bike facilities. Traffic calming improvements included narrowing the roadway, delineating parking areas, and adding landscape amenities. Access was improved by consolidating roadway connection points and establishing standard entrances in lieu of less formalized connections. LHB's robust public engagement process addressed project impacts, staging, and sequencing to minimize construction disruption. The project accomplished its immediate goals to improve active transportation, safety, and tourism and business access.



### SUPERIOR STREET RECONSTRUCTION City of Duluth | Duluth, MN



The project consisted of full-depth street reconstruction and new signal systems. Utility work included a new water main and service laterals; a temporary water main to provide service during construction; converting the existing steam system to hot water; and a new storm sewer. Private utility work (MP electrical) occurred concurrently with the project. Project improvements included new streetscape elements consisting of decorative and accessible sidewalks, street furniture, landscaping, lighting, and other amenity features. Due to the number and complexity of the utility systems in the design, LHB delivered a complete 3D rendered model of the utilities along the entire project corridor, including in-place utilities identified by potholing and locating. Independent clash detection software was then utilized iteratively for each system to verify clearance and cover requirements. The project included structural retrofit or abandonment of in-place building vaults and areaways that consisted of subsurface building space extending out from the building and beneath the sidewalk of Superior Street.

## Key Staff

We have assembled a team of highly qualified professionals for each of the major project tasks who we feel will bring a great deal of value to the project. Each of our key team members has a set of unique and highly respected skills, making them a good fit with the respective project needs. As Project Principal, Jon Siiter brings over 31 years of experience to the table. Jon has served in this role for many similar type projects and will be an invaluable resource for any overarching project issues, structural design needs, and adherence to standards throughout the project. Megan Goplin will serve as Project Manager and will lead the design tasks. Megan has been practicing civil engineering for over 15 years and has extensive experience in public involvement, and pedestrian and roadway design including geometric layout, utility design, and project management.

The following team members will assist with this project: Adam Beissel will provide roadway design; Adam Besse will serve as Lead Utility Engineer; Nathan Bruno is Lead Drainage Engineer; Rachel Johnson will lead the visual quality efforts; Paul Vogel, will lead Land Survey; Philip Barden utilizes his extensive experience in GIS and drafting to create accurate plans; and Joe Litman brings his knowledge of MSA funding and years of design experience, as Quality Manager. Additionally, our long-standing partner Braun Intertec will bring the geotechnical experience of Joe Butler.

LHB and Braun have designated the leading people in our firms with the understanding needed to hit the ground running, and to provide a quality project for the City.

## 3. PERSONNEL:



### MEGAN GOPLIN

PE (MN)

#### Project Manager/Lead Roadway

Megan brings over 15 years of professional experience in site, stormwater, utility, roadway, ADA and intersection design for both public and private clients. She offers extensive knowledge in national accessible building codes, and Federal and State Aid projects, and is proficient in AutoCAD Civil 3D. Megan has worked on many public roadway, trail and park projects for government clients. She is a strong advocate of client interaction and coordination with the project team throughout the design and construction process. Her responsibilities as Project Manager include monitoring in-house progress to achieve project milestones and provide project deliverables on schedule; day to day communication with the City's Project Manager; and communication with all of the project team members.

#### Relevant Project Experience

CITY OF DULUTH | DULUTH, MN

East 1st Street & Alley Reconstruct, Roadway Engineer  
Superior Street Reconstruction, Roadway Engineer  
1st Ave. E. from Superior St. to 3rd St., Roadway Engineer  
Duluth East Third Street Reconditioning, Project Manager

ESSENTIA HEALTH | DULUTH, MN

Vision Northland 2nd St Reconstruct, Roadway Engineer

ST. LOUIS COUNTY | DULUTH, MN

Morris Thomas, Haines & Piedmont Reconstruct, Roadway Engineer

DAKOTA COUNTY | INVER GROVE HEIGHTS, MN

Babcock Trail, Project Manager

WASHINGTON COUNTY | FOREST LAKE, MN

CSAH 2 Rehabilitation, Project Manager



### 3. PERSONNEL, CONT.:



**NATHAN BRUNO**

PE (MN)

**Lead Drainage Engineer**

Nathan has 17 years of experience, specializing in water resource engineering. His extensive experience includes designing storm water treatment ponds, storm sewer and other conveyance systems, bridge hydraulics, sanitary sewers, water mains, site grading and drainage plans, and SWPPPs for public and private clients. He has extensive experience with MnDOT State Aid design standards and permitting standards including NPDES, Minnesota Department of Health, and BWSR, assuring compliance with permitting agencies. He is Duluth Water & Sewer Inspection certified, QPSWPPP certified, and uses structural and non-structural BMPs to meet treatment goals and design standards.

#### Relevant Project Experience

CITY OF DULUTH | DULUTH, MN  
Superior Street Reconstruction, Drainage Engineer  
MNDOT | GRAND MARAIS, MN  
TH 61 Mill & Overlay, Drainage Engineer  
ST. LOUIS COUNTY | DULUTH, MN  
Moris Thomas, Haines & Piedmont Reconstruct  
CSAH 4 Storm Sewer, Drainage Engineer  
Woodland Storm Sewer, Drainage Engineer  
ESSENTIA HEALTH | DULUTH, MN  
Vision Northland 2nd Street Reconstruction,  
Drainage Engineer



**ADAM BESSE**

PE (MN)

**Lead Utility Engineer**

Adam has a combined 17 years of experience on construction and engineering projects, specializing in site and municipal design. His design skills include site grading, sanitary sewer conveyance, water distribution systems, site drainage, stormwater control and treatment systems, and roadway design. Adam is also experienced in construction administration, and construction site review.

#### Relevant Project Experience

CITY OF DULUTH | DULUTH, MN  
Superior Street Reconstruction, Utility Engineer  
Raleigh Street Reconstruction, Proj. Mgr.  
East 1st Street & East 1st Alley, Utility Eng.  
ESSENTIA HEALTH/CITY OF DULUTH/MNPOWER |  
DULUTH, MN  
Vision Northland 2nd Street Reconstruction,  
Utility Eng  
EVER-GREEN ENERGY | BULRINGTON, VT  
Steam Plant Survey & Design, Utility Engineer  
CITY OF GRAND MARAIS; GRAND MARAIS, MN  
Sewer Force Main Leak Repair, Engineer



**JON SIITER**

PE

**Project Principal**

For over 31 years, Jon has been responsible for the design, construction and investigation/inspection of bridges and structures. His experience includes new design, historic rehabilitation design and inspection of structures utilizing steel, reinforced concrete, prestressed concrete, post tensioned concrete, stone masonry, brick masonry and timber. Jon has been responsible for design engineering for numerous bridge structure types including haunched steel plate girder, flared continuous steel plate girder, rolled steel beam, steel truss, prestressed concrete girder, stone and brick masonry and concrete slab spans for various state, county and municipal agencies. He has also investigated and rated over 2,000 existing bridges and structures from simple timber spans to complex movable steel trusses.

#### Relevant Project Experience

CITY OF DULUTH | DULUTH, MN  
East 1st Street & Alley Reconstruct., Supv.  
Superior Street Reconstruction, Structural  
6th Avenue East Reconstruct, Principal & Struc.  
1st Ave. E. from Superior St. to 3rd St., Supv.  
Brewery Creek Storm Tunnel Insp., Principal  
Chester Creek Culvert Replacement, Principal  
MNDOT | GRAND MARAIS, MN  
TH 61 Mill & Overlay, Structural, Structural  
ST. LOUIS COUNTY | DULUTH, MN  
Bundled Bridge Projects, Principal & Struc.



**RACHEL JOHNSON**

PLA (MN), SITES

**Landscape Architect/  
Lead Visual Quality**

Passionate about urban design, accessibility for all ages, and public art, Rachel works on a variety of projects including governmental, education, commercial, and healthcare. She enjoys creating descriptive illustrations and facilitating public meetings. Rachel was instrumental in working with the City of Woodbury creating analysis maps, concept designs, and using an iterative process to plan and design six new parks. She works with communities to improve neighborhoods through complete streets policies, utilizing urban design strategies, integration of public art programs, and park planning.

#### Relevant Project Experience (Visual Quality)

CITY OF DULUTH | DULUTH, MN  
Raleigh Street Reconstruct  
Waseca Industrial Road Extension  
MNDOT | VARIOUS LOCATIONS  
TH 61 Mill and Overlay; Grand Marais, MN  
Hwy 53 Landscape; International Falls, MN  
TH 61 London Road 26th-60th; Duluth, MN



**ADAM BEISSEL**

PE

**Roadway Engineer**

Adam has 10 years of experience specializing in site plan design. He is dedicated to a design process that integrates the needs of the client with those of the community, as well as applicable codes and standards. His project experience covers a broad spectrum, including large scale industrial facilities, city streets, and commercial building site plans. Adam has been part of these projects in a variety of capacities including design, construction inspection and administration, project management and owner's representative.

#### Relevant Project Experience

CITY OF DULUTH | DULUTH, MN  
Superior Street Reconstruction, Roadway  
East 1st Street & East 1st Street Alley, Roadway  
Snively-Glenwood Roundabout Utilities, Roadway  
Utility Adjustment for DOT Culverts, Roadway  
TH 53 & I 35 Utility Relocations, Roadway  
MNDOT | GRAND MARAIS, MN  
TH 61 Mill & Overlay, Roadway  
ST. LOUIS COUNTY | DULUTH, MN  
Moris Thomas, Haines & Piedmont  
Reconstruct, Roadway  
ESSENTIA HEALTH | DULUTH, MN  
Vision Northland 2nd St. Reconstruct, Roadway  
WASHINGTON COUNTY | FOREST LAKE, MN  
CSAH 2 Rehabilitation, Roadway



**PAUL VOGEL**

PLS (MN)

**Land Surveyor**

Paul has over 35 years of surveying experience and has provided services for various private and public clients. Paul's role is to complete and oversee a variety of professional assignments to facilitate the completion of roads, building sites, recreational areas, developments, and bridges. He performs ALTA/ACSM, boundary, cadastral, topographic, environmental site and route surveys, which involve section subdivision, right-of-way acquisition, and preparation of appropriate legal descriptions. Paul prepares design, concept plats, preliminary plats, final plats, site maps, and a variety of exhibits for land transfers, right-of-way acquisition, easements, and utility infrastructure. He also provides research, computations, layout, field work, drafting, and correspondence.

#### Relevant Project Experience (Land Surveyor)

CITY OF DULUTH | DULUTH, MN  
Superior Street Reconstruction  
Oxford, Livingston, Glenwood Reconstruction  
ST. LOUIS COUNTY | DULUTH, MN  
Moris Thomas, Haines & Piedmont Reconstruct

### 3. PERSONNEL CONT.:



**JOE LITMAN**  
PE  
Quality Manager

Joe will ensure the project receives the necessary resources and that project quality is continually maintained. Joe's engineering background, including over 36 years at LHB, is in roadway and utility design, bridge rehabilitation, and new bridge structure design. He has extensive involvement in the management, design, funding assistance, and construction administration of civil and structural projects. As LHB's Chief Operating Officer, Joe is part of the Operations Committee. He oversees the Quality Management System (QMS) and ensures quality issues across the company are reviewed on a monthly basis, and the QMS is audited annually.

**Relevant Project Experience (Principal/QM)**

CITY OF DULUTH | DULUTH, MN  
Superior Street Reconstruction  
3rd Avenue West Storm Sewer Repair

ST. LOUIS COUNTY | DULUTH, MN  
Morris Thomas, Haines & Piedmont Reconstruct.  
Woodland Avenue Storm Sewer  
Haines Road Storm Sewer Redesign  
CSAH 4 Rice Lake Road Storm Sewer



**PHILIP BARDEN**  
Lead Design Technician

Philip has 29 years of experience creating detailed drawings for site development projects, utilities and pipelines, mechanical systems, and buildings. He creates AutoCAD drawings, maintaining standard detail libraries, and customizing AutoCAD standards for drawing setup and menus. Philip is responsible for drafting construction documents, making maps for various permitting applications, and helping coordinate and maintain department CADD standards. Philip uses ArcGIS on projects, and is the Content Expert for LHB's GIS data. Additionally, he has experience in creating, editing, and checking alignment sheets and developing Excel spreadsheets for clients' GIS.

**Relevant Project Experience (Design Tech)**

CITY OF DULUTH | DULUTH, MN  
East 1st Street & Alley Reconstruction  
Superior Street Reconstruction  
ST. LOUIS COUNTY | DULUTH, MN  
Morris Thomas, Haines & Piedmont Reconstruct.  
Woodland Avenue Storm Sewer  
ESSENTIA HEALTH | DULUTH, MN  
Vision Northland 2nd Street Reconstruction  
DAKOTA COUNTY | INVER GROVE HEIGHTS, MN  
Babcock Trail

### 4. KNOWLEDGE OF DULUTH State Aid, & City of Duluth Street and Utility Standards

The City of Duluth has been LHB's number one priority as a client: we hope the City would agree that we have an excellent record of delivering projects on time and within budget. Our project staff have the working knowledge of City standards and practices garnered from several major and recent City street and utility projects that include multi-year phasing, State requirements, and modeling of storm systems.

### 5. WORK PLAN (SEE PAGE 10)

### 7. REFERENCES

**ROBBIE HASS, PE**

COOK COUNTY, HIGHWAY DEPARTMENT HEAD  
609 EAST FOURTH AVENUE  
GRAND MARAIS, MN 55604  
(218) 387-3014, ROBERT.HASS@CO.COOK.MN.US

**STEVE KRASAWAY, PE**

ST. LOUIS COUNTY, COUNTY ENGINEER  
4787 MIDWAY ROAD  
DULUTH, MN 55811  
(218) 625-3841, KRASAWAYS@STLOUISCOUNTYMN.GOV

**DAVE MOHAR, PE**

MNDOT DIST. 1, HYDRAULICS PROJECT ENGINEER  
1123 MESABA AVENUE  
DULUTH, MN 55811  
(218) 725-2796, DAVE.MOHAR@STATE.MN.US

### 6. WORK SCHEDULE

TASK	MILESTONE	2023				2024			
		S	O	N	D	J	F	M	A
Notice to Proceed	9/18/23	■							
<b>Task 1: Initial Site Visits and Consultations</b>									
Kickoff Meeting with City		M(1)							
Gather and Review Existing Information / Initial Site Visit									
Bi-Weekly Status Meetings with City (Assume 12)			M(2)	M(2)	M(1)	M(2)	M(1)	M(2)	M(2)
(2) Public Meetings				M		M			
<b>Task 2: Reconnaissance, Field Surveys, Geotech</b>									
Field Survey & Mapping									
Geotechnical investigation (Braun)									
Gopher State One Call To Request Mapping									
<b>Task 3: Preliminary Recommendations &amp; Costs</b>									
Develop Design and Cost Alternatives									
Submit Design Alternatives and Estimates	12/15/23				■				
Meet w/Project Engineer to Select Preferred Alternatives					M				
<b>Task 4: Preliminary Design</b>									
Develop Preliminary Design Layouts & Engineering Report									
Hydrology and Hydraulics Design/Study									
Submit Prelim. Recommendation & Est. #1 to City	2/15/24						■		
Meet w/Project Eng, to Select Preferred Alternative							M		
<b>Tasks 5: Preliminary Design (30%)</b>									
Prepare Preliminary Plans (30%)									
Submit Preliminary Plans and Estimate (30%)	4/26/24								■

**Key:** ■ Task Duration ■ Milestone M Meeting

5. WORK PLAN



# WORK PLAN

PROJECT NAME **DULUTH HEIGHTS STORMWATER STUDY & EKLUND AVE RECONSTRUCTION**  
 CLIENT **CITY OF DULUTH**  
 PREPARER **LHB**

PROJECT NUMBER **230610**  
 DATE **8/29/23**

Work Task	Description	LHB										TOTAL HOURS	
		Jon Siiter	Megan Goplin	Adam Beissel	Adam Besse	Nathan Bruno	Rachel Johnson	Phil Barden	Paul Vogel	Tony Hanson	Joe Litman		Linda Nelson
		Project Principal	Project Manager	Roadway Engineer	Utility Lead	Drainage Lead	Visual Quality Lead	Senior Technician	Land Surveyor	Survey Tech	Quality Manager		Admin
<b>1.00</b>	<b>INITIAL SITE VISITS AND CONSULTATIONS</b>	<b>4</b>	<b>72</b>	<b>21</b>	<b>10</b>	<b>17</b>	<b>16</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>164</b>
1.01	Kickoff meeting with City to review scope & design criteria		2	1		1							
1.02	Gather and review existing information / Initial Site Visit		2	4	6	6		6					
1.03	Project Management & Consultant Team Coordination	4	32								2		
1.04	Bi-Weekly Status Meetings with City (Assume 12)		24	8	4	8							
1.05	(2) Public Meetings		12	8		2	16	16					
<b>2.00</b>	<b>RECONNAISSANCE, FIELD SURVEYS, &amp; GEOTECH INVEST.</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>10</b>	<b>16</b>	<b>80</b>	<b>0</b>	<b>1</b>	<b>123</b>
2.01	Field Survey & Mapping								8	68			
2.02	Right-of-way and easement evaluation							6	8	12			
2.03	Evaluation of Existing Retaining Walls (none assumed)												
2.04	Permitting -DNR, Corps, FEMA		4			8							
2.05	Geotechnical investigation (Braun) (assumes 14 borings)												
2.06	Identification of tree removals			2				2					
2.07	Gopher State One Call and Mapping			2				2				1	
<b>3.00</b>	<b>PRELIMINARY RECOMMENDATIONS AND COSTS</b>	<b>0</b>	<b>14</b>	<b>24</b>	<b>24</b>	<b>21</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>107</b>
3.01	Analyze Records, Reports, and Data		4	8	8	8							
3.02	Develop Design and Cost Alternatives (Assumes 2 Alternatives)		8	16	16	12		24					
3.03	Meet with Project Engineer to Select Preferred Alternatives		2			1							
<b>4.00</b>	<b>PRELIMINARY DESIGN (2 Scenarios)</b>	<b>2</b>	<b>28</b>	<b>47</b>	<b>16</b>	<b>61</b>	<b>0</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>6</b>	<b>221</b>
4.01	Set Horizontal and Vertical Alignment Geometrics		8	12				24					
4.02	Preliminary Roadway Typical Sections		2	8				12					
4.03	Preliminary Cross Sections		2	4				8					
4.04	Preliminary Water Layout				16			8					
4.05	Preliminary Stormwater Layout					12		6					
4.06	Right-of-way and Easements		2	6									
4.07	Hydrology and Hydraulics/Drainage Study		4			40					1	3	
4.08	Preliminary Engineering Design Report	2	8	16		8					2	3	
4.09	Meet with Project Engineer to Select Preferred Alternative		2	1		1							
<b>5.00</b>	<b>PRELIMINARY PLANS (30%)</b>	<b>0</b>	<b>30</b>	<b>71</b>	<b>40</b>	<b>42</b>	<b>0</b>	<b>122</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>305</b>
5.01	Title Sheet		1	1				4					
5.02	General Layout		1	2				4					
5.03	Statement of Estimated Quantities		2	8	4	8		8					
5.04	Typical Sections		2	8				12					
5.05	Existing Conditions and Removals (3 sheets @ 20' Scale)		4	10		2		20					
5.06	Construction Plan and Profile (5 sheets @ 20' scale)		8	20	20	16		40					
5.07	Drainage Profiles		2	6		16		6					
5.08	Cross Sections @ 50'-4 per sheet (15 sheets)		6	8				20					
5.09	Phasing and Temporary Water Plans		4	8	16			8					
<b>6.00</b>	<b>COST ESTIMATES (5 Total)</b>	<b>2</b>	<b>6</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>21</b>
6.01	Preliminary Estimates (2 Scenarios)		2	4									
6.02	Final Estimates (2 Scenarios)	1	2	4									
6.03	30% Design Estimate (1 Scenario)	1	2	4							1		
<b>TOTAL HOURS</b>		<b>8</b>	<b>154</b>	<b>179</b>	<b>90</b>	<b>149</b>	<b>16</b>	<b>236</b>	<b>16</b>	<b>80</b>	<b>6</b>	<b>7</b>	<b>941</b>