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June 26, 2026

Mr. Aaron Soderlund, P.E.  
City of Duluth  
411 West First Street, RM 211  
Duluth, MN 55802

Re: Proposed Amendment for Additional Engineering Design and Bidding Services for the Lakewood Water Treatment Plant Standby Power Improvements Project

Dear Mr. Soderlund:

MSA Professional Services, Inc. (MSA) is pleased to submit this amendment proposal to provide revised engineering design and bidding services for the Lakewood Water Treatment Plant Power Standby Power Project.

Due to the project's schedule, MSA has assembled a team of highly qualified local partners to ensure successful project delivery within the City's desired timeline. MSA will collaborate with Arola Architecture Studio, LLC, for architectural services and Northland Consulting Engineers LLP for structural engineering services. As the lead engineering consultant, MSA will provide overall project coordination along with site civil, plumbing, HVAC, and electrical engineering services.

**SCOPED A/E SERVICES TO BE PROVIDED BY MSA:**

Develop single prime bid documents for the City requested revised design approach for the plan standby power as noted under the original contract. Separate equipment vendor solicitations or individual trade bid packages are not included in this revised project approach. The work included in this amendment is listed below:

- I. New Primary Electrical Services
  - a. Provide new primary electrical service infrastructure with automatic transfer switch (ATS) fed from separate utility grids.
- II. Substation No. 1 – New Installation
  - a. Electrical Design
    - Establish a new point of service with the electric utility.
    - Provide generator docking station(s) and a 5 MVA step-up transformer to support two (2) 2 MW portable generators.
    - Design substation gear including:
      - Distribution sections with redundant feeders to the Water Treatment Plant.
      - Integrated DC power supply.
    - Provide low-voltage power systems supporting controls, lighting, communications, and security.
    - Design control systems, communications networks, security systems, access control, and general-purpose systems.
  - b. Site Design
    - Provide site layout and civil design to support the new electrical service:
      - Fenced gravel drive and equipment pad with equipotential grounding.
      - Grading and erosion control.
      - Stormwater treatment for only the new impervious areas.
      - Site lighting.

- Site restoration.
  - Erosion control.
  - Traffic control planning, including pedestrian and bicycle accommodation.
  - Utility relocation coordination.
- c. Distribution Design
- Update underground duct bank designs to route 13.8 kV, 480 V, control, and fiber-optic communication systems.
  - Design road crossing at Congdon Road.
  - Develop duct bank routing and layout drawings.
- III. Substation No. 2 – Conversion of Existing Surge Valve Building
- a. Preliminary Work
- Conduct hazardous materials survey on the existing surge building.
  - Fully document and measure existing building conditions.
  - Additional Geotechnical and topographic survey updates are not anticipated.
- b. General (G) Scope
- Update previous plans and specifications based on the value engineered design approach.
  - Provide traffic control plans and specifications.
- c. Civil (C) Scope
- Update prior civil design plans and specifications for value engineered design intent.
  - Minor site grading: site generally maintained as-is except for restoration.
  - If the City requests stormwater upgrades for the existing site, this will be added on request.
  - Locate and document electrical manhole between the pump house and Congdon Road.
  - Develop design for installation and location of the 480 V generator.
  - Coordinate and locate natural gas supply for the standby generator and surge building.
  - Document the surge building fully (above-grade).
  - Prepare drawings and specifications, including AutoCAD Civil 3D site plans, elevations, details, and schedules.
- d. Structural Engineering (SE) Scope
- Perform a site visit to visually inspect existing conditions (no testing anticipated).
  - Design for interior demolition:
    - Existing floor, structural columns, lifting beam and columns, transformer bases.
  - Provide structural designs for:
    - New interior walls.
    - New structural floor supporting interior walls, electrical equipment, and roof loads.
    - Stoops at three egress doors.
    - Housekeeping pads.
    - New columns and beams for valve access.
    - Ceiling girders and column support for roof and new plenum space.
    - Generator pad.
  - Provide structural support for:
    - Doors and windows (custom Marvin products).
    - Load modifications while preserving historic exterior.
    - Wall and foundation penetrations.
  - Provide coordinated drawings, plans, elevations, details, schedules, and specifications in PDF format.

- e. Architectural (A) Scope
  - Develop architectural plans, elevations, details, schedules, and technical specifications.
  - Provide details for restoring the historic exterior, including cleaning, treatments, and tuckpointing (interior and exterior).
  - Provide window and door upgrade details:
    - Maintain existing streetside appearance.
    - Clear glass with simplified frame profiles.
    - Outward-swinging doors with panic hardware per NEC.
  - Provide interior design enhancements to meet current energy codes.
  - Provide painting and coatings design.
  - Provide coordinated drawings and technical documentation in PDF format.
  
- f. Plumbing (P) Scope
  - Provide plumbing plans, elevations, details, schedules, and specifications.
  - Address roof and floor drains to grade (no new domestic water or sanitary systems).
  - Coordinate natural gas supply to the standby generator and surge building.
  - Provide coordinated drawings and technical documentation in PDF format.
  
- g. Mechanical/HVAC (M) Scope
  - Provide HVAC plans, elevations, details, schedules, and specifications.
  - Design heating, cooling, and dehumidification for three (3) rooms, including:
    - Mini-split heat pump with multi-head outdoor condenser located near utility transformers, positioned to preserve historic aesthetics.
    - Ceiling-mounted cartridge units (three).
    - Flush-mounted west-wall intake louver with damper.
    - Flush-mounted east-wall outlet louver within door framing.
    - Interior fan system drawing intake air across the building.
  - Provide coordinated drawings and technical documentation in PDF format.
  
- h. Process Mechanical (PM) Scope
  - No process mechanical work is anticipated other than:
    - In-kind valve replacement.
    - Addition of a lifting hoist.
    - Recoating of piping to match building upgrades.
  - Additional PM work is available upon request.
  
- i. Electrical (E) Scope
  - Update prior electrical designs and specifications to meet value engineered design concepts.
  - Develop comprehensive electrical documentation, including:
    - One-lines, P&IDs, SCADA overview, access control riser diagrams.
    - Equipment, elevations and layouts.
  - Design the renovated surge valve building to include:
    - Low Voltage Room
    - Medium Voltage Room
    - Surge Valve Room
  - Design 480 V distribution system and onsite natural-gas standby generator.
  - Provide new house power supply to the Pump House, replacing existing 240/120 V lighting panels.
  - Coordinate fiber-optic communication systems.

- j. Feeders to Lakewood Pump Station
  - Update plans and specifications based on value engineering design concepts.
  - Prior design elements are not expected to be reused.

## **DESIGN SERVICES**

**AUGUST 2026 – OCTOBER 2026**

Contract Administration, Project Management, and Client Coordination.

- IV. Preliminary Design (PD) Phase (0-30%)
  - Facilitate Kick-off meeting with owner team & essential Discipline Leaders (LD) (Virtual Meeting) to validate the proposal's project objectives.
  - Share preliminary design plans with City for review.
- V. Preliminary Design Phase Deliverables (4-hard copies and PDF):
  - Preliminary Plan Set.
  - Meeting Minutes.
- VI. Design Development (DD) Phase (30%-80%)
  - Address review comments and concerns
  - Develop DD (~80%) draft advertisement, bid form, special provisions, plans, technical specification, schedule, sequencing plan, and cost estimate.
  - Present DD deliverable documents to the City for review and comment.
  - Attend and facilitate a DD Review meeting
- VII. Design Phase Deliverables (4-hard copies and PDF):
  - Project description for the advertisement
  - Bid form
  - Special provisions and technical specifications
  - 80% Plans
  - Proposed Schedule
  - Sequencing plan
  - Cost estimate
  - Meeting Minutes
- VIII. Final Design and Bid Document (FD/BD) Phase (80-100%)
  - Address review comments and concerns
  - Complete development of the bid documents
  - Deliver Final Design / Bid Document (FD/BD) deliverable documents to the City.
  - Anticipate the City submitting the FD/BD documents to the reviewing and regulatory agencies for review and construction approval.
  - MSA will assist and support City staff respond to agency review correspondence.
  - Update site, building, utilities and lift station layouts per City comments.
  - Update opinion of probable construction cost based on final design (cost estimate).
  - Provide final construction plans, specifications and bidding documents necessary for public bid process to the City for review.
  - Submit 100% plan set to City staff for review and comment.
  - Conduct a meeting with City staff to discuss the 100% plan review and comments.
  - Update final deliverables per final comments.
- IX. Final Design Phase Deliverables (PDF):

- Final Design. Bid ready plans, special provisions, bid form, and specifications for submittal to regulatory agency.
- Bid Documents: plans, special provisions, bid form, and specifications for submittal to regulatory agency.
- Final Construction Cost Estimate

#### **BIDDING SERVICES**

**OCTOBER 2026 – NOVEMBER 2026**

- Contract Administration, Project Management, and Client Coordination
- Respond to City and bidder questions.
- Assist the City in advertising for and obtaining bids for project construction.
- Issue addenda as appropriate to interpret, clarify or expand the bidding documents.
- Review bids, provide written recommendations, and assist the City in evaluating bids and in assembling and awarding contracts for construction.

#### Bidding Phase Deliverables:

- Prepare and issue addenda as necessary.
- Bid evaluation and recommendation of award.

#### **A/E DELIVERABLES:**

##### Bid Documents

- City of Duluth Special Provisions, based on the latest City of Duluth template (Word format)
- Technical Specifications (Word and PDF formats)
- Bid Form (Excel format)
- Drawings / Plan Set (CAD, viewer format, and PDF)

##### Addenda and Meeting Minutes

- Addenda (Word and PDF formats)
- Meeting Minutes (Word and PDF formats)

##### Project Cost Estimate

- Detailed cost estimate (Excel and PDF formats)

#### **ASSUMPTIONS:**

- The project will be delivered as a single-prime bid and construction contract.
- The City will facilitate the bidding phase with support from MSA.
- No additional survey or topographic survey is required.
- No additional soil borings are required.
- Assumed City will coordinate with historical stakeholders to accept the proposed building modifications.
- Assume the City will coordinate and submit all permits.
- The City will manage all relevant stakeholders, including but not limited to grant-funding entities.
- The City will provide all relevant funding information to MSA for inclusion in the project construction documents.
- The City will lead all submittal efforts and coordination with the Minnesota Department of Health (MDH) and the Environmental Protection Agency (EPA).
- The City will support and lead coordination with City and state departments having “Authority Having Jurisdiction” (AHJ) over the project.
- No testing that is not identified above is included, however can be provided upon request.
- The existing surge valve is constructed on 48” deep foundation walls and 12” deep footings.
- Minnesota Power’s position on the service remains unchanged.
- The City will support and coordinate the design and installation of natural gas (NG) service to the proposed standby generator and Surge Valve Building.

- Construction-related services are not included as part of this proposal.
- Project funding is not required to conform to Build America, Buy America (BABA), thus BABA requirements will not be followed for this project.
- The City of Duluth will not withhold retainage.
- The City of Duluth will not require the design team to provide additional insurance or bonding beyond what is already included in the agreement.
- If required, the City will handle and process any requirements related to historical reviews for the project work to proceed.
- The City will lead submittal efforts and coordination with MDH and EPA.

Below is a schedule of estimated time and expenses for the proposed services described above assumed to be provided in 2026.

Phase	Estimated Hours	Estimated Fee
Balance on existing contract	(59)	(\$8,000)
Design Services + Non-Billable Travel	1527	\$249,900
Bidding Services	96	\$17,300
Construction Services	TBD	TBD
<b>Total</b>	<b>1623</b>	<b>\$259,200</b>

The total estimated fee is \$259,200 time and expense (T&E) for the design and bidding services.

We look forward to working with you to design and bid the Lakewood Water Treatment Plant Standby Power Improvements Project. If you have any questions about our proposal, please call me at (608) 355-8868 or on my cell phone at (608) 963-6527.

Sincerely,  
MSA Professional Services, Inc.



Scott R. Chilson, P.E.  
Principal Project Manager  
SRC:  
Enc.  
Work Plan Summary  
Detailed Work Plan  
Detail Direct Expense Plan  
Arola Architectural studio proposal  
Northland Consulting Engineers proposal



Tim Mikonowicz, P.E.  
Senior Team Leader – Engineering

**Redesign and Bidding Engineering Services Lakewood Water Treatment Plant  
Power System Upgrade - City of Duluth**

Phase	2026 Design	
	(Hours)	(Dollars)
100 Contract Administration	522	\$ 90,700
200 Preliminary Design	379	\$ 64,400
220 Design Development	348	\$ 57,400
240 Final Design	230	\$ 37,400
300 Bidding	96	\$ 17,300
900 Non-Reimbursible Expenses	48	\$ -
<b>Annual Totals</b>	<b>1,623</b>	<b>\$ 267,200</b>
<b>Total</b>		

2026 Redesign and Bidding Engineering Services Lakewood Water Treatment Plant Power System Upgrade - City of Duluth

		Job Title	PM	Lead RPR	Project Coordinator	Revit Coordinator	Lead Civil PE	CE Designer	Plumbing & HVAC Eng	Plumbing & HVAC Eng	Process Mechanical Eng	Process Mechanical Designer	Electrical Designer	Admin.	Principal in Charge (TL)	Contract Admin.	TOTAL HOURS	LABOR COST	DIRECT EXPENSE	SUBS	TOTAL ACTUAL COST *	
		Resource Last Name	Scott Chilson	Phil Lockett	Mae Moderson	Donald Wilkinson	Jon Loye	Jeff Dyer	Aaron Eicher	Ashton Wendt	Andrew Rockweiler	Justin Yanke	Aimee Lutz	Dorene Spindler	Tim Mikonowicz	Ros Pribbenow						
		2026	\$210.00	\$163.00	\$118.00	\$150.00	\$210.00	\$155.00	\$184.00	\$145.00	\$184.00	\$142.00	\$142.00	\$118.00	\$220.00	\$116.00						
Contract Line No.	Phase No.	Task No.	Description	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours	Planned Hours						
0	6	106	Contract Administration	88	8	44	16	0	0	0	0	0	0	0	8	6	4	522	\$ 30,104	\$ 8,276	\$ 52,320	\$ 90,700
		0 10	CA- L Administration	4											4	4	4	16	\$ 2,656	\$ 35		\$ 2,691
		0 12	CA- L Owner Coordination	24	8	8												40	\$ 7,288	\$ 125		\$ 7,413
		0 14	CA- L Team Coordination	24		16									4	2		46	\$ 7,840	\$ 35		\$ 7,875
		0 16	CA- L Invoicing (up to 12 in 2026)	12		4												16	\$ 2,992	\$ 3		\$ 2,995
		0 18	CA- L Structural Engineering Sub-Contractor - Northland Consulting Engineers	12		8	8											220	\$ 4,664	\$ 3,868	\$ 25,020	\$ 33,552
		0 20	CA- L Architectural Sub-Contractor - Alora Architectural Studio	12		8	8											184	\$ 4,664	\$ 4,210	\$ 27,300	\$ 36,174
1	6	206	Preliminary Design	82	38	0	8	11	73	13	13	9	17	101	13	0	0	379	\$ 62,589	\$ 1,719	\$ -	\$ 64,400
		1 10	PD- G Owner Kick-off Meeting (In-Person)	8	4			2						4				18	\$ 3,320	\$ -		\$ 3,320
		1 12	PD- G Design Team Kick-Off Meeting (Virtual)	2				1	1	1	1		1	1				11	\$ 1,827	\$ -		\$ 1,827
		1 14	PD- G Existing Building Field Measurements		8				8					16				32	\$ 4,816	\$ -		\$ 4,816
		1 16	PD- G Hazardous Materials Survey and Report		16										4			20	\$ 3,080	\$ -		\$ 3,080
		1 18	PD- G MNP contact and coordination	4	2													6	\$ 1,166	\$ -		\$ 1,166
		1 20	PD- G General Design	16					16				8					40	\$ 6,976	\$ 794		\$ 7,770
		2 22	PD- C Civil Design				8	48										56	\$ 9,120	\$ -		\$ 9,120
		5 24	PD- P Plumbing							6	6							12	\$ 1,974	\$ -		\$ 1,974
		6 26	PD- M Mechanical							6	6							12	\$ 1,974	\$ -		\$ 1,974
		9 28	PD- PM Process Mechanical	4			4					8	16					32	\$ 5,184	\$ -		\$ 5,184
		7 30	PD- EP Electrical	32			4						72					108	\$ 17,544	\$ -		\$ 17,544
		1 32	PD- G Specification	4					16						8			12	\$ 1,784	\$ 750		\$ 2,534
		1 34	PD- G Cost Estimate	4														4	\$ 840	\$ -		\$ 840
		0 36	PD- L Review Meeting	8	8													16	\$ 2,984	\$ 175		\$ 3,159
2	6	226	Design Development	60	8	0	12	4	56	48	48	8	16	80	8	0	0	348	\$ 57,064	\$ 262.90	\$ -	\$ 57,400
		1 10	DD- G General Design	12			4		16					8				40	\$ 6,736	\$ 112		\$ 6,848
		2 12	DD- C Civil Design					4	40									44	\$ 7,040	\$ -		\$ 7,040
		5 14	DD- P Plumbing							16	16							32	\$ 5,264	\$ 8		\$ 5,272
		6 16	DD- M Mechanical							32	32							64	\$ 10,528	\$ 18		\$ 10,546
		9 18	DD- PM Process Mechanical	4			4					8	16					32	\$ 5,184	\$ 8		\$ 5,192
		8 20	DD- EC Electrical	16			4						72					92	\$ 14,184	\$ 3		\$ 14,187
		1 22	DD- G Specification	16											8			24	\$ 4,304	\$ 2		\$ 4,306
		1 24	DD- G Cost Estimate	4														4	\$ 840	\$ 2		\$ 842
		0 26	DD- L Review Meeting	8	8													16	\$ 2,984	\$ 112		\$ 3,096
3	6	246	Final Design	38	8	0	12	4	48	12	12	8	16	64	8	0	0	230	\$ 37,088	\$ 262.90	\$ -	\$ 37,400
		1 10	FD- G General Design	8			4		16					8				36	\$ 5,896	\$ 112		\$ 6,008
		1 12	FD- G Civil Design					4	32									36	\$ 5,800	\$ -		\$ 5,800
		5 14	FD- P Plumbing							6	6							12	\$ 1,974	\$ 8		\$ 1,982
		6 16	FD- M Mechanical							6	6							12	\$ 1,974	\$ 18		\$ 1,992
		9 18	FD- PM Process Mechanical	2			4					8	16					30	\$ 4,764	\$ 8		\$ 4,772
		8 20	FD- EC Electrical	2			4						56					62	\$ 8,972	\$ 3		\$ 8,975
		1 22	DD- G Specification	16											8			24	\$ 4,304	\$ 2		\$ 4,306
		1 24	FD- G Cost Estimate	2														2	\$ 420	\$ 2		\$ 422
		0 26	FD- L Review Meeting	8	8													16	\$ 2,984	\$ 112		\$ 3,096
4	6	306	Bidding	48	4	0	2	2	4	4	4	2	4	12	10	0	0	96	\$ 17,208	\$ 25	\$ -	\$ 17,300
		1 10	BDG- G General Design	24											8			32	\$ 5,984	\$ 25		\$ 6,009
		2 12	BDG- C Civil Design				2	2	4									8	\$ 1,340	\$ -		\$ 1,340
		5 14	BDG- P Plumbing							2	2							4	\$ 658	\$ -		\$ 658
		6 16	BDG- M Mechanical							2	2							4	\$ 658	\$ -		\$ 658
		9 18	BDG- PM Process Mechanical									2	4					6	\$ 936	\$ -		\$ 936
		8 20	BDG- EC Electrical	8									8					16	\$ 2,816	\$ -		\$ 2,816
		0 22	BDG- L Pre-Bid Conference	8	4								4	2				18	\$ 3,136	\$ -		\$ 3,136
		0 24	BDG- L Bid Evaluation and Recommendations	8														8	\$ 1,680	\$ -		\$ 1,680
9	6	906	Non-Reimbursible Expenses	48	0	0	0	0	0	0	0	0	0	0	0	0	0	48	\$ -	\$ -	\$ -	\$ -
		1 10	NRE- G Travel (up to 4 trips in 2026)	48														48	\$ 10,080	\$ 1,000		\$ -
<b>GRAND TOTAL</b>				<b>364</b>	<b>66</b>	<b>44</b>	<b>50</b>	<b>21</b>	<b>181</b>	<b>77</b>	<b>77</b>	<b>27</b>	<b>53</b>	<b>257</b>	<b>47</b>	<b>6</b>	<b>4</b>	<b>1623</b>	<b>\$ 204,053</b>	<b>\$ 10,546</b>	<b>\$ 52,320</b>	<b>\$ 267,200</b>

\* Rounded up to nearest \$100

2026 Construction Engineering Services Woodland Booster Station - City of Duluth - Estimated Expenses															
				2026	Prints / Copies	Plots	Mileage	Dialy Wear and Tear Allowance	Postage	Survey GPS	Survey Truck	Survey Supplies	Sub-Contractor	Misc. Expenses	Total Expenses
0% Annual Esculation Percentage				Unit Cost	\$ 0.15	\$ 1.00	\$ 0.72	\$ 5.00	\$ 1.00	\$ 40.00	\$ 0.85	\$ 1.00	\$1.00	\$1.00	
Contract Line No.	Phase No.	Task No.	Description	Units	Each	Each	Miles	Day	Dollars	Hours	Miles	Dollars	Dollars	Dollars	
0 6	106		<b>Contract Administration</b>		520	320	0	0	20	0	0	\$ -	\$ -	\$ 7,858.00	\$ 8,276.00
		0 10	CA- L Administration		100				10					\$ 10	\$ 35
		0 12	CA- L Owner Coordination		100	100			10						\$ 125
		0 14	CA- L Team Coordination		100	20									\$ 35
		0 16	CA- L Invoicing (up to 12 in 2026)		20										\$ 3
		0 18	CA- L Structural Engineering Sub-Contractor - Northland Consulting Engineers		100	100								\$ 3,753	\$ 3,868
		0 20	CA- L Architectural Sub-Contractor - Alora Architectural Studio		100	100								\$ 4,095	\$ 4,210
1 6	206		<b>Preliminary Design</b>		6500	600	200	0	0	0	0	\$ -	\$ -	\$ -	\$ 1,719.00
		1 10	CA- G Owner Kick-off Meeting (Virtual)												\$ -
		1 12	CA- G Design Team Kick-Off Meeting (Virtual)												\$ -
		1 14	CA- G Existing Building Field Measurements												\$ -
		1 16	CA- G Hazardous Materials Survey and Report												\$ -
		1 18	CA- G MNP contact and coordination												\$ -
		1 20	CA- G General Design		1000	500	200								\$ 794
		2 22	CA- C Civil Design												\$ -
		5 24	CA- P Plumbing												\$ -
		6 26	CA- M Mechanical												\$ -
		9 28	CA- PM Process Mechanical												\$ -
		7 30	CA- EP Electrical												\$ -
		1 32	CA- G Specification		5000										\$ 750
		1 34	CA- G Cost Estimate												\$ -
		0 36	CA- L Review Meeting		500	100									\$ 175
2 6	226		<b>Design Development</b>		310	130	120	0	0	0	0	\$ -	\$ -	\$ -	\$ 262.90
		1 10	CA- G General Design		60	60	60								\$ 112
		2 12	CA- C Civil Design												\$ -
		5 14	CA- P Plumbing		50										\$ 8
		6 16	CA- M Mechanical		50	10									\$ 18
		9 18	CA- PM Process Mechanical		50										\$ 8
		8 20	CA- EC Electrical		20										\$ 3
		1 22	CA- G Specification		10										\$ 2
		1 24	CA- G Cost Estimate		10										\$ 2
		0 26	CA- L Review Meeting		60	60	60								\$ 112
3 6	246		<b>Final Design</b>		310	130	120	0	0	0	0	\$ -	\$ -	\$ -	\$ 262.90
		1 10	CA- G General Design		60	60	60								\$ 112
		1 12	CA- G Civil Design												\$ -
		5 14	CA- P Plumbing		50										\$ 8
		6 16	CA- M Mechanical		50	10									\$ 18
		9 18	CA- PM Process Mechanical		50										\$ 8
		8 20	CA- EC Electrical		20										\$ 3
		1 22	CA- G Specification		10										\$ 2
		1 24	CA- G Cost Estimate		10										\$ 2
		0 26	CA- L Review Meeting		60	60	60								\$ 112
4 6	300		<b>Bidding</b>		100	10	0	0	0	0	0	\$ -	\$ -	\$ -	\$ 25.00
		1 10	CA- G General Design		100	10									\$ 25
		2 12	CA- C Civil Design												\$ -
		5 14	CA- P Plumbing												\$ -
		6 16	CA- M Mechanical												\$ -
		9 18	CA- PM Process Mechanical												\$ -
		8 20	CA- EC Electrical												\$ -
		0 22	CA- L Pre-Bid Conference												\$ -
		0 24	CA- L Bid Evaluation and Recommendations												\$ -
9 6	906		<b>Non-Reimbursible Expenses</b>		0	0	-	0	\$ -	0	0	\$ -	\$ -	\$ -	\$ -
		1 10	NRE- G Travel (up to 4 trips in 2026)				2,400							\$ 1,000	\$ -
					\$ 7,298	\$ 1,190	\$ 440	\$ -	\$ 20	\$ -	\$ -	\$ -	\$ -	\$ 7,858	\$ 10,546



## PROPOSAL - UPDATED

June 22, 2026

Scott Chilson, PE  
MSA Professional Services, Inc  
[schilson@msa-ps.com](mailto:schilson@msa-ps.com)

Project: Lakewood Pump Station - Upgrades

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Scott,

AROLA Architecture Studio, LLC appreciates the opportunity to provide you with a proposal of professional Architecture services. A description of the scope of services is listed below. Thank you.

### PROJECT DESCRIPTION

- Design Drawings and Construction documents for the upgrades to the Lakewood pump station.
- Divide the interior space as required for proper separation of components and Historic window replacement plan.

### SCOPE OF SERVICES

The following is a list of services that will be included:

- **Design review for owner review and approval**
- **Necessary Project Coordination with MSA and NCE to ensure all design is code compliant for all applicable codes**
- **Construction drawings necessary for permit with the City of Duluth Construction Services**
- **Structural Engineering to be by Northland Consulting Engineers**
- **MSA is the project lead and AROLA Architecture Studio will serve as a Subcontractor to them for the necessary Architecture components of this project**

The following is a list of services that are **not** included:

- **Structural, Civil, Mechanical, Electrical, Plumbing engineering services**
- **Professional interior design services**
- **Any services not listed above in the Scope of Services**



**RYAN J. AROLA**, NCARB  
Principal Architect / Owner

AROLA Architecture Studio, LLC  
501 Lake Avenue South, Suite 205  
Duluth, Minnesota 55802

218-740-5219 (o)  
218-310-3959 (c)

ryan@arolaarch.com

Company Profile/Executive Summary

AROLA Architecture Studio, LLC, started in February of 2015, is a Duluth based Architecture Firm providing complete architectural services for commercial and residential projects in Minnesota, Wisconsin and Arizona. Started by Ryan Arola, life-long Duluth resident, after 13+ years of working with various local Architecture Firms on projects across northern Minnesota and Wisconsin. AROLA Architecture Studio, LLC is committed to helping their clients thru all stages of design, understanding that the most important part of the project is the Client. Open communication in the Architect-Client relationship is crucial to providing professional design services, it is the foundation in which AROLA Architecture Studio, LLC is built.

Education:

Bachelor of Science in Design Architectural Studies – Arizona State University '04  
Master of Architecture – University of Wisconsin Milwaukee '06  
Certificate in Historic Preservation Studies – University of Wisconsin Milwaukee '06

Registrations/Licensed:

NCARB Certified  
Minnesota  
Wisconsin  
Arizona

Memberships:

Duluth Curling Club  
Northland Country Club – Board Member, House Committee Chair  
Minnesota Ballet – Board President

Selected Project Experience:

Board of Trade Renovations, Duluth, Minnesota - 2020

- Conversion of the 5 floors of the historic Board of Trade Building to 84 Residential apartments.
- Project has SHPO Approval and necessary for Historic Tax Credits

# Structural Engineering Fee Proposal

June 24, 2026

Proposal #: P2026



# Northland

Consulting Engineers L.L.P.

Structural, Civil and Forensic Engineering

**Project Title:** Duluth Lakewood Water Treatment Plant  
**Project Location:** Duluth, MN

**Client Email:** [schilson@msa-ps.com](mailto:schilson@msa-ps.com)

**Office Phone:** 218.722.3915

**Cell Phone:** 608.355.8868

**Company:** MSA  
**Client Contact:** Scott Chilson  
**Full Address:** 332 W. Superior Street, Suite 600- Duluth, MN 55802

### Project Description

NCE will perform a site visit to the existing building for visual review & field measurements required to provide a structural plan for the existing building framing systems, perform structural calculations for new steel beams required to support existing roof beams after removal of existing steel columns along with concrete pads required for new stoops, generator & other electrical equipment, foundation wall penetrations, coordination with other trades & converting final documents to conform with COD standards.

### Scope of Structural Engineering Services

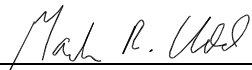
1. Meetings, Communications with the Architect, MSA and Owner.
2. Structural Calculations, site visits and drawings for bidding, permitting & construction.
3. CA Phase: Not included in this fee estimate.

Proposed Fee Calculation Table	Estimated Hours / Hourly Rates					Extended Cost
	Principal	PE	Tech.	Clerical	Other	
<b>Design Engineering Services</b>	\$195.00	\$160.00	\$95.00	\$60.00		
<b>Structural Services:</b> Site visit to the existing building for visual review & field measurements required to provide a structural plan for the existing building framing systems, perform structural calculations for new steel beams required to support existing roof beams after removal of existing steel columns, design and drawing for exterior stoops, generator pad & other electrical equipment pads, new concrete slab on grade floor, design of overhead trolley beam system, coordination with design team and other trades, permitting and bidding correspondence and we assume 4-5 virtual coordination meetings.	28	72	72	20		\$ 25,020.00
						\$ -
						\$ -
						\$ -
	<b>Subtotal</b>					<b>\$ 25,020.00</b>
<b>Construction Engineering Services- Limited</b>						
Communications during Construction and shop drawing review for structural items	0	0				\$ -
(0) Site Visit During Construction	0	0				\$ -
	<b>Subtotal</b>					<b>\$ -</b>
<b>Total Proposed NCE Fee</b>						<b>\$ 25,020.00</b>

### Assumptions

1. Compensation for limited services described above will be performed on an hourly rate basis based on the overall project description and limited scope of services listed above. This estimate is a Not-To-Exceed amount.
2. This estimate includes (1) Site visit during design phase will be performed. Additional site visits as requested will not be performed without written authorization from the client. Estimated cost per site visit= \$390.00.
3. Additional Services may be required. Additional services will be performed only upon written approval by the client and billed on an hourly rate basis in accordance with NCE current rate schedule.
4. If acceptable, this proposal along with the attached terms and conditions sheet will serve as our contract for the project.
5. Exclusions: any service not listed in the scope, including on site meetings, Redesign due to lack of timely or accurate information from other disciplines.

### Submitted By

  
 Signature \_\_\_\_\_ Date **06/24/2026**

Mark R. Udd P.E.  
 Principal Partner - Structural Department  
 Northland Consulting Engineers LLP

### Accepted By

Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_  
 Title \_\_\_\_\_  
 Representing \_\_\_\_\_

## Basis of Compensation - 2026



### Fee Schedule

The compensation of Northland Consulting Engineers for professional services is based upon straight hourly rates as indicated below.

Classification	Hourly Rates
Partner Engineer	\$195.00
Registered Project Engineer (Civil / Structural)	\$160.00
Principal	\$195.00
Expert Witness / Testimony - PE	\$310.00
Engineer	\$150.00
Structural Engineer Technician	\$95.00
Civil / Structural Drafting	\$95.00
Secretary / Clerical	\$60.00

### Reimbursable Expenses

Expenses connected with the work such as, but not limited to, travel, vehicle rental, equipment rental, meals, lodging will be charged at cost. Outside consultants, material testing and geotechnical services (if included in our scope) will be charged at cost plus 10 percent. Vehicle mileage will be charged at \$.72 per mile.

Reproduction expenses will be charged as follows:

Copy or Scan (large format)	\$4.00 / sheet
Copy or Scan (up to 11x17)	\$0.25 / each

Effective 1/1/2026

## Terms & Conditions



**Northland Consulting Engineers, L.L.P. (NCE) shall perform the services outlined in this agreement for the stated fee arrangement.**

### Fee

The total fee, except stated lump sum, shall be understood to be an estimate, based upon Scope of Services, and shall not be exceeded by more than ten percent, without written approval of the Client. Where the fee arrangement is to be on an hourly basis, the rates shall be those that prevail at the time services are rendered.

### Billings/Payments

Invoices will be submitted monthly for services and reimbursable expenses and are due when rendered. Invoices shall be considered past due if not paid within 30 days after the invoice date and the Engineer (NCE) may, without waiving any claim or right against Client, and without liability whatsoever to the Client, terminate the performance of the service. Retainers shall be credited on the final invoice. A service charge will be charged at 1.5% (or the legal rate) per month on the unpaid balance. In the event any portion of an account remains unpaid 90 days after billing, the Client shall pay cost of collection, including reasonable attorneys' fees.

### Ownership Documents

All documents produced by the NCE under this agreement shall remain the property of the NCE and may not be used by the Client for any other endeavor without the consent of the NCE.

### Hidden Conditions and Hazardous Materials

A structural condition is hidden if it is concealed by an existing finish or if it cannot be investigated by reasonable visual observation. If the Engineer (NCE) has reason to believe that a structurally deficient condition may exist, NCE shall notify the Client who shall authorize and pay for all costs associated with the investigation of such a condition and, if necessary, all costs necessary to correct said condition. If (1) the Client fails to authorize such investigation or correction after due notification, or (2) NCE has no reason to believe that such a condition exists, the Client is responsible for all risks associated with this condition, and NCE shall not be responsible for the existing condition nor any resulting damages to persons or property. NCE shall have no responsibility for the discovery, presence, handling, removal, disposal or exposure of persons to hazardous materials of any form.

### Access to Site

Unless otherwise stated, NCE will have access to the site for activities necessary for the performance of the services. NCE will take precautions to minimize damage due to these activities, but has not included in the fee the cost of restoration of any resulting damage.

### Indemnification

The Engineer (NCE) shall indemnify and hold harmless the Client and its personnel against any and all claims, damages, losses and expenses to the extent they are caused by the negligent; acts, errors, or omissions of NCE or its employees in the performance of its services under this Agreement, subject to the Risk Allocation provisions. The Client shall indemnify and hold harmless NCE and all of its personnel from and against any and all claims, damages, losses and expenses arising out of or resulting from the performance of the services, provided that any such claims, damage, loss or expense is caused in whole or in part by the negligent act or omission and/or strict liability of the Client, anyone directly or indirectly employed by the Client (except NCE) or anyone for whose acts any of them may be liable. This indemnification shall include any claim, damage or loss due to the presence of hazardous materials.

### Dispute Resolution

The Engineer and Client agree to negotiate any claim(s) or dispute(s) arising out of or related to the agreement between them in good faith prior to exercising any other provision of this Agreement. If a claim or dispute between NCE and Client cannot be settled within 30 days by good faith negotiations the SE and Client agree to submit it to mediation in accordance with the Construction Rules of the American Arbitration Association. If the claim or dispute cannot be settled by good faith negotiations or mediation then either party may exercise their rights under law. In no event shall a claim or dispute be made or sustained if it would be barred by the applicable statute of limitations.

### Termination of Services

This agreement may be terminated upon 10 days written notice by either party should the other fail to perform his obligations hereunder. In the event of termination, the Client shall pay the NCE for all services rendered to the date of termination, all reimbursable expenses, and reasonable termination expenses.