



AGENDA
BIG LAKE CITY COUNCIL WORKSHOP
COUNCIL CHAMBERS

FEBRUARY 18, 2026

5:00 p.m.

- 1) CALL TO ORDER**
- 2) ROLL CALL**
- 3) PROPOSED AGENDA**
- 4) BUSINESS**
 - 4A. Wastewater Treatment Facility Expansion Project – 30% Design Update
 - 4B. Discuss Development of a Full Water Distribution Model
 - 4C. Discuss 2026 AIS Lake Treatment Plan
 - 4D. Discuss Soliciting Grading Quotes for Street and Pond Areas on Minnesota Avenue in the BLIPE Phase II Project Area
- 5) OTHER**
- 6) ADJOURN**

Disclaimer: This agenda has been prepared to provide information regarding an upcoming work session of the Big Lake City Council. This document does not claim to be complete and is subject to change.



WORKSHOP ITEM

Big Lake City Council

Prepared By: <i>Dan Childs, Water/Wastewater Superintendent</i>	Meeting Date: <i>2/18/2026</i>	Item No. 4A
Item Description: <i>Wastewater Treatment Facility 30% Design Update</i>	Reviewed By: <i>Hanna Klimmek, City Administrator</i>	
	Reviewed By: <i>Deb Wegeleben, Finance Director</i>	

COUNCIL DIRECTION REQUESTED

- Acknowledgement of 30% plan deliverable
- Preparation of 30% design costs or continued use of Facility Plan cost
- Project delivery method: Design-Bid-Build or Construction Manager at Risk (CMAR)
- Direction on project next steps

BACKGROUND/DISCUSSION

At the October 9, 2024 Council meeting, the City Council approved a Professional Services Contract with SEH, Inc. for 30% Design Services for the Wastewater Treatment Facility (WWTF) Expansion Project. Staff from SEH will be in attendance at the February 18, 2026 Council Workshop to deliver the 30% Design. Items to be presented will include:

- Review of the 30% design deliverable
 - High-level overview of 30% design, plans
- Discussion of project costs and funding
 - Funding progress
 - Estimated project costs: develop 30% cost or use Facility Plan costs
- Discussion of project delivery method: Design-Bid-Build or CMAR
- Discussion of project next steps
 - Final design and bidding documents
 - MPCA review, approval, certification of project documents
 - Continued pursuit of funding opportunities

FINANCIAL IMPACT

Preparation of 30% cost estimate will require a proposal (not included for this workshop).

STAFF RECOMMENDATION

Staff recommends acknowledgement of 30% design.

ATTACHMENTS

- Council item 6K from the October 9, 2024 City Council Meeting.
- 30% Design Project Drawings – Section G only.
 - Due to the large size of the file, SEH will bring full printed copies of the project drawings and project manual to the Workshop.



Prepared By: Dan Childs, Water/Wastewater Superintendent	Meeting Date: 10/9/2024	<input type="checkbox"/> Regular Agenda Item <input checked="" type="checkbox"/> Consent Agenda Item	Item No. 6K
Item Description: Professional Services Contract with SEH, Inc. for 30% Design Services for the Wastewater Treatment Facility Expansion Project	Reviewed By: Hanna Klimmek, City Administrator Deb Wegeleben, Finance Director		

ACTION REQUESTED

By approving this item on the Consent Agenda, Council would be approving a Professional Services Contract with SEH, Inc. for 30% Design Services for the Wastewater Treatment Facility Expansion Project.

BACKGROUND/DISCUSSION

During the workshop meeting on 9/11/2024 Jessica Hedin, Wastewater Design Lead representing SEH, Inc., presented the status of the Wastewater Treatment Facility (WWTF) Expansion Project, an update on the Environmental Assessment Worksheet (EAW) that is currently in process, and an update on funding opportunities for the project. SEH ended the update by proposing a 30% design of the WWTF Expansion project based on the recommended alternative in the approved Facility Plan. This proposed fee for the 30% design is part of the overall estimated project cost included in the Facility Plan approved by Council on February 14, 2024. After the 30% design is complete, SEH will assist the City in selecting a delivery method for the project.

During the workshop meeting on 9/25/24, the City Council directed staff to move forward with the proposed 30% design of the WWTF Expansion Project through a Professional Services Contract with SEH, Inc. Pre-design services that will begin prior to the winter season include topographic survey, geotechnical investigation, and hazardous assessment.

FINANCIAL IMPACT

The estimated lump sum fee for the proposed scope of work for SEH to complete 30% of the design phase is \$1,077,200. The fees would be paid out of Sewer CIP Fund 499.

STAFF RECOMMENDATION

Staff recommends that the City Council approve a Professional Services Contract with SEH, Inc. for 30% design services to begin immediately.

ATTACHMENTS

Professional Services Agreement with SEH, Inc. for 30% Design Services for the Wastewater Treatment Facility Expansion Project.

Agreement for Professional Services

This Agreement is effective as of October 9, 2024, between City of Big Lake (Client) and Short Elliott Hendrickson Inc. (Consultant).

This Agreement authorizes and describes the scope, schedule, and payment conditions for Consultant's work on the Project described as: **Big Lake WWTF Expansion Project**

Client's Authorized Representative: Paul Knier
Address: 160 Lake St N, Big Lake, Minnesota 55309, United States
Telephone: 612.817.6758 **email:** pknier@biglakemn.org

Project Manager: Jessica Hedin
Address: 2351 Connecticut Avenue, Suite 300, Sartell, Minnesota 56377
Telephone: 612.247.2768 **email:** jhedin@sehinc.com

Scope: The Basic Services to be provided by Consultant as set forth herein are provided subject to the attached General Conditions of the Agreement for Professional Services (General Conditions Rev. 05.15.22), which is incorporated by reference herein and subject to Exhibits attached to this Agreement.

Refer to Exhibit 1 Scope of Work and Schedule for defined scope of work.

Schedule: Refer to Exhibit 1 Scope of Work and Schedule for anticipated project schedule

Payment:

The lump sum fee is \$1,077,200.00 including expenses and equipment.

The payment method, basis, frequency and other special conditions are set forth in attached Exhibit A-2.

This Agreement for Professional Services, attached General Conditions, Exhibits and any Attachments (collectively referred to as the "Agreement") supersedes all prior contemporaneous oral or written agreements and represents the entire understanding between Client and Consultant with respect to the services to be provided by Consultant hereunder. In the event of a conflict between the documents, this document and the attached General Conditions shall take precedence over all other Exhibits unless noted below under "Other Terms and Conditions". The Agreement for Professional Services and the General Conditions (including scope, schedule, fee and signatures) shall take precedence over attached Exhibits. This Agreement may not be amended except by written agreement signed by the authorized representatives of each party.

Other Terms and Conditions: Other or additional terms contrary to the General Conditions that apply solely to this project as specifically agreed to by signature of the Parties and set forth herein:
None.

Short Elliott Hendrickson Inc.

By: 
Full Name: Susan Danzi
Title: Regional Practice Center Leader - WW

City of Big Lake

By: _____
Full Name: Paul Knier
Title: Mayor

Exhibit A-2
to Agreement for Professional Services
Between City of Big Lake (Client)
and
Short Elliott Hendrickson Inc. (Consultant)
Dated September 25, 2024

Payments to Consultant for Services and Expenses
Using the Lump Sum Basis Option

The Agreement for Professional Services is amended and supplemented to include the following agreement of the parties:

A. Lump Sum Basis Option

The Client and Consultant select the Lump Sum Basis for Payment for services provided by Consultant. During the course of providing its services, Consultant shall be paid monthly based on Consultant's estimate of the percentage of the work completed. Necessary expenses and equipment are provided as a part of Consultant's services and are included in the initial Lump Sum amount for the agreed upon Scope of Work. Total payments to Consultant for work covered by the Lump Sum Agreement shall not exceed the Lump Sum amount without written authorization from the Client.

The Lump Sum amount includes compensation for Consultant's services and the services of Consultant's Consultants, if any for the agreed upon Scope of Work. Appropriate amounts have been incorporated in the initial Lump Sum to account for labor, overhead, profit, expenses and equipment charges. The Client agrees to pay for other additional services, equipment, and expenses that may become necessary by amendment to complete Consultant's services at their normal charge out rates as published by Consultant or as available commercially.

B. Expenses Not Included in the Lump Sum

The following items involve expenditures made by Consultant employees or professional consultants on behalf of the Client and shall be paid for as described in this Agreement.

1. Expense of overtime work requiring higher than regular rates, if authorized in advance by the Client.
2. Other special expenses required in connection with the Project.
3. The cost of special consultants or technical services as required. The cost of subconsultant services shall include actual expenditure plus 10% markup for the cost of administration and insurance.

The Client shall pay Consultant monthly for expenses not included in the Lump Sum amount.

General Conditions of the Agreement for Professional Services

SECTION I – SERVICES OF CONSULTANT

A. General

1. Consultant agrees to perform professional services as set forth in the Agreement for Professional Services or Supplemental Letter Agreement (“Services”). Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or the Consultant. The Consultant’s services under this Agreement are being performed solely for the Client’s benefit, and no other party or entity shall have any claim against the Consultant because of this Agreement or the performance or nonperformance of services hereunder.

B. Schedule

1. Unless specific periods of time or dates for providing services are specified, Consultant’s obligation to render Services hereunder will be for a period which may reasonably be required for the completion of said Services.
2. If Client has requested changes in the scope, extent, or character of the Project or the Services to be provided by Consultant, the time of performance and compensation for the Services shall be adjusted equitably. The Client agrees that Consultant is not responsible for damages arising directly or indirectly from delays beyond Consultant’s control. If the delays resulting from such causes increase the cost or the time required by Consultant to perform the Services in accordance with professional skill and care, then Consultant shall be entitled to a equitable adjustment in schedule and compensation.

C. Additional Services

1. If Consultant determines that any services it has been directed or requested to perform are beyond the scope as set forth in the Agreement or that, due to changed conditions or changes in the method or manner of administration of the Project, Consultant’s effort required to perform its services under this Agreement exceeds the stated fee for the Services, then Consultant shall promptly notify the Client regarding the need for additional Services. Upon notification and in the absence of a written objection, Consultant shall be entitled to additional compensation for the additional Services and to an extension of time for completion of additional Services absent written objection by Client.
2. Additional Services, including delivery of documents, CAD files, or information not expressly included as deliverables, shall be billed in accord with agreed upon rates, or if not addressed, then at Consultant’s standard rates.

D. Suspension and Termination

1. If Consultant’s services are delayed or suspended in whole or in part by Client, or if Consultant’s services are delayed by actions or inactions of others for more than 60 days through no fault of Consultant, then Consultant shall be entitled to either terminate its agreement upon seven days written notice or, at its option, accept an equitable adjustment of compensation provided for elsewhere in this Agreement to reflect costs incurred by Consultant.
2. This Agreement may be terminated by either party upon seven days written notice should the other party fail substantially to perform in accordance with its terms through no fault of the party initiating the termination.
3. This Agreement may be terminated by either party upon thirty days’ written notice without cause. All provisions of this Agreement allocating responsibility or liability between the Client and Consultant shall survive the completion of the Services hereunder and/or the termination of this Agreement.
4. In the event of termination, Consultant shall be compensated for Services performed prior to termination date, including charges for expenses and equipment costs then due and all termination expenses.

SECTION II – CLIENT RESPONSIBILITIES

A. General

1. The Client shall, in proper time and sequence and where appropriate to the Project, at no expense to Consultant, provide full information as to Client’s requirements for the Services provided by Consultant and access to all public and private lands required for Consultant to perform its Services.

2. The Consultant is not a municipal advisor and therefore Client shall provide its own legal, accounting, financial and insurance counseling, and other special services as may be required for the Project. Client shall provide to Consultant all data (and professional interpretations thereof) prepared by or services performed by others pertinent to Consultant’s Services, such as previous reports; sub-surface explorations; laboratory tests and inspection of samples; environmental assessment and impact statements, surveys, property descriptions; zoning; deed; and other land use restrictions; as-built drawings; and electronic data base and maps. The costs associated with correcting, creating or recreating any data that is provided by the Client that contains inaccurate or unusable information shall be the responsibility of the Client.
3. Client shall provide prompt written notice to Consultant whenever the Client observes or otherwise becomes aware of any changes in the Project or any defect in Consultant’s Services. Client shall promptly examine all studies, reports, sketches, opinions of construction costs, specifications, drawings, proposals, change orders, supplemental agreements, and other documents presented by Consultant and render the necessary decisions and instructions so that Consultant may provide Services in a timely manner.
4. Client shall require all utilities with facilities within the Project site to locate and mark said utilities upon request, relocate and/or protect said utilities to accommodate work of the Project, submit a schedule of the necessary relocation/protection activities to the Client for review, and comply with agreed upon schedule. Consultant shall not be liable for damages which arise out of Consultant’s reasonable reliance on the information or services furnished by utilities to Client or others hired by Client.
5. Consultant shall be entitled to rely on the accuracy and completeness of information or services furnished by the Client or others employed by the Client and shall not be liable for damages arising from reasonable reliance on such materials. Consultant shall promptly notify the Client if Consultant discovers that any information or services furnished by the Client is in error or is inadequate for its purpose.
6. Client agrees to reasonably cooperate, when requested, to assist Consultant with the investigation and addressing of any complaints made by Consultant’s employees related to inappropriate or unwelcomed actions by Client or Client’s employees or agents. This shall include, but not be limited to, providing access to Client’s employees for Consultant’s investigation, attendance at hearings, responding to inquiries and providing full access to Client files and information related to Consultant’s employees, if any. Client agrees that Consultant retains the absolute right to remove any of its employees from Client’s facilities if Consultant, in its sole discretion, determines such removal is advisable. Consultant, likewise, agrees to reasonably cooperate with Client with respect to the foregoing in connection with any complaints made by Client’s employees.
7. Client acknowledges that Consultant has expended significant effort and expense in training and developing Consultant’s employees. Therefore, during the term of this Agreement and for a period of two years after the termination of this Agreement or the completion of the Services under this Agreement, whichever is longer, Client shall not directly or indirectly: (1) hire, solicit or encourage any employee of Consultant to leave the employ of Consultant; (2) hire, solicit or encourage any consultant or independent contractor to cease work with Consultant; or (3) circumvent Consultant by conducting business directly with its employees. The two-year period set forth in this section shall be extended commensurately with any amount of time during which Client has violated its terms.

SECTION III – PAYMENTS

A. Invoices

1. Undisputed portions of invoices are due and payable within 30 days. Client must notify Consultant in writing of any disputed items within 15 days from receipt of invoice. Amounts due Consultant will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) for invoices 30 days past due. Consultant reserves the right to retain Services or deliverables until all invoices are paid in full. Consultant will not be liable for any claims of loss, delay, or damage by Client for reason of withholding Services, deliverables, or Instruments of Service until all invoices are paid in full. Consultant shall be entitled to recover all reasonable

- costs and disbursements, including reasonable attorney's fees, incurred in connection with collecting amounts owed by Client.
- Should taxes, fees or costs be imposed, they shall be in addition to Consultant's agreed upon compensation.
 - Notwithstanding anything to the contrary herein, Consultant may pursue collection of past due invoices without the necessity of any mediation proceedings.

SECTION IV – GENERAL CONSIDERATIONS

A. Standards of Performance

- The standard of care for all professional engineering and related services performed or furnished by Consultant under this Agreement will be the care and skill ordinarily exercised by members of Consultant's profession practicing under similar circumstances at the same time and in the same locality. Consultant makes no warranties, express or implied, under this Agreement or otherwise, in connection with its Services.
- Consultant neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the work in accordance with its construction contract or the construction documents prepared by Consultant. Client acknowledges Consultant will not direct, supervise or control the work of construction contractors or their subcontractors at the site or otherwise. Consultant shall have no authority over or responsibility for the contractor's acts or omissions, nor for its means, methods, or procedures of construction. Consultant's Services do not include review or evaluation of the Client's, contractor's or subcontractor's safety measures, or job site safety or furnishing or performing any of the Contractor's work.
- Consultant's Opinions of Probable Construction Cost are provided if agreed upon in writing and made on the basis of Consultant's experience and qualifications. Consultant has no control over the cost of labor, materials, equipment or service furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions. Consultant cannot and does not guarantee that proposals, bids or actual construction cost will not vary from Opinions of Probable Construction Cost prepared by Consultant. If Client wishes greater assurance as to construction costs, Client shall employ an independent cost estimator.

B. Indemnity for Environmental Issues

- Consultant is not a user, generator, handler, operator, arranger, storer, transporter, or disposer of hazardous or toxic substances. Therefore the Client agrees to hold harmless, indemnify, and defend Consultant and Consultant's officers, directors, subconsultant(s), employees and agents from and against any and all claims; losses; damages; liability; and costs, including but not limited to costs of defense, arising out of or in any way connected with, the presence, discharge, release, or escape of hazardous or toxic substances, pollutants or contaminants of any kind at the site.

C. Limitations on Liability

- The Client hereby agrees that to the fullest extent permitted by law, Consultant's total liability to the Client for all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to the Project or this Agreement from any cause or causes including, but not limited to, Consultant's negligence, errors, omissions, strict liability, breach of contract or breach of warranty shall not exceed five hundred thousand dollars (\$500,000). In the event Client desires limits of liability in excess of those provided in this paragraph, Client shall advise Consultant in writing and agree that Consultant's fee shall increase by 1% for each additional five hundred thousand dollars of liability limits, up to a maximum limit of liability of five million dollars (\$5,000,000).
- Neither Party shall be liable to the other for consequential damages, including without limitation lost rentals; increased rental expenses; loss of use; loss of income; lost profit, financing, business, or reputation; and loss of management or employee productivity, incurred by one another or their subsidiaries or successors, regardless of whether such damages are foreseeable and are caused by breach of contract, willful misconduct, negligent act or omission, or other wrongful act of either of them. Consultant expressly disclaims any duty to defend Client for any alleged actions or damages.
- It is intended by the parties to this Agreement that Consultant's Services shall not subject Consultant's employees, officers or directors to any personal legal exposure for the risks associated with this Agreement. The Client agrees that as the Client's sole and exclusive remedy, any claim, demand or suit shall be directed and/or

asserted only against Consultant, and not against any of Consultant's individual employees, officers or directors, and Client knowingly waives all such claims against Consultant individual employees, officers or directors.

- Causes of action between the parties to this Agreement pertaining to acts or failures to act shall be deemed to have accrued, and the applicable statutes of limitations shall commence to run, not later than either the date of Substantial Completion for acts or failures to act occurring prior to substantial completion or the date of issuance of the final invoice for acts or failures to act occurring after Substantial Completion. In no event shall such statutes of limitations commence to run any later than the date when the Services are substantially completed.

D. Assignment

- Neither party to this Agreement shall transfer, sublet or assign any rights under, or interests in, this Agreement or claims based on this Agreement without the prior written consent of the other party. Any assignment in violation of this subsection shall be null and void.

E. Dispute Resolution

- Any dispute between Client and Consultant arising out of or relating to this Agreement or the Services (except for unpaid invoices which are governed by Section III) shall be submitted to mediation as a precondition to litigation unless the parties mutually agree otherwise. Mediation shall occur within 60 days of a written demand for mediation unless Consultant and Client mutually agree otherwise.
- Any dispute not settled through mediation shall be settled through litigation in the state and county where the Project at issue is located.

SECTION V – INTELLECTUAL PROPERTY

A. Proprietary Information

- All documents, including reports, drawings, calculations, specifications, CAD materials, computers software or hardware or other work product prepared by Consultant pursuant to this Agreement are Consultant's Instruments of Service ("Instruments of Service"). Consultant retains all ownership interests in Instruments of Service, including all available copyrights.
- Notwithstanding anything to the contrary, Consultant shall retain all of its rights in its proprietary information including without limitation its methodologies and methods of analysis, ideas, concepts, expressions, inventions, know how, methods, techniques, skills, knowledge, and experience possessed by Consultant prior to, or acquired by Consultant during, the performance of this Agreement and the same shall not be deemed to be work product or work for hire and Consultant shall not be restricted in any way with respect thereto. Consultant shall retain full rights to electronic data and the drawings, specifications, including those in electronic form, prepared by Consultant and its subconsultants and the right to reuse component information contained in them in the normal course of Consultant's professional activities.

B. Client Use of Instruments of Service

- Provided that Consultant has been paid in full for its Services, Client shall have the right in the form of a nonexclusive license to use Instruments of Service delivered to Client exclusively for purposes of constructing, using, maintaining, altering and adding to the Project. Consultant shall be deemed to be the author of such Instruments of Service, electronic data or documents, and shall be given appropriate credit in any public display of such Instruments of Service.
- Records requests or requests for additional copies of Instruments of Services outside of the scope of Services, including subpoenas directed from or on behalf of Client are available to Client subject to Consultant's current rate schedule. Consultant shall not be required to provide CAD files or documents unless specifically agreed to in writing as part of this Agreement.

C. Reuse of Documents

- All Instruments of Service prepared by Consultant pursuant to this Agreement are not intended or represented to be suitable for reuse by the Client or others on extensions of the Project or on any other Project. Any reuse of the Instruments of Service without written consent or adaptation by Consultant for the specific purpose intended will be at the Client's sole risk and without liability or legal exposure to Consultant; and the Client shall release Consultant from all claims arising from such use. Client shall also defend, indemnify, and hold harmless Consultant from all claims, damages, losses, and expenses including attorneys' fees arising out of or resulting from reuse of Consultant documents without written consent.



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EXHIBIT 1 - SCOPE OF WORK AND SCHEDULE

September 2, 2024

RE: City of Big Lake, Minnesota
WWTF Expansion Project
SEH No. BIGLK 167307 14.00

Mr. Paul Knier
Mayor
City of Big Lake
160 Lake Street North
Big Lake, MN 55309

Dear Mr. Knier:

Thank you for the opportunity to submit this proposal for professional services to the City of Big Lake (City) for the expansion and improvements at the City's municipal wastewater treatment facility (WWTF). This letter serves as our understanding of the scope, schedule, and fee.

PROJECT BACKGROUND

The Big Lake Wastewater Treatment Facility (WWTF) is at capacity and the projected growth in the community is contributing to an increase in flow and load demand which current facilities will be unable to meet. There are also treatment units for which age and condition are limiting the operation and performance of the facility. SEH prepared a Facility Plan, submitted to the MPCA in February 2024, which evaluated alternatives and provided recommended improvements to address additional treatment capacity and aging infrastructure. A detailed list of the recommended improvements can be found in Exhibit 1 at the end of this proposal. The Facility Plan received preliminary approval by MPCA on June 28, 2024.

The next step towards construction of these improvements is design. Typically projects follow a traditional design-bid-build delivery method where a project design is completed, the project is publicly bid, and the lowest responsible bidder is awarded the project. However, on August 1, 2023 the Minnesota Legislature authorized municipalities to use the Construction Manager at Risk (CMAR) process for construction projects over \$175,000. The CMAR process places the construction manager in essentially the same position as a general contractor because the construction manager is responsible for all subcontractors and for the price, schedule, and workmanship of the project. Since August 1 there have been several large water and wastewater projects utilizing CMAR in Minnesota and it is expected that more will follow. CMAR is an approach to get more bidders as recent large (greater than \$50 million) water and wastewater projects have received one or no bidders with traditional design-bid-build delivery.

Whether a traditional design-bid-build or CMAR delivery method is used, an engineer must prepare a 30% design. If traditional design-bid-build is used, the engineer will continue the design to 100% so that it can be publicly bid. If CMAR delivery is used, the 30% design is used in the Request for Qualifications

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 2351 Connecticut Avenue, Suite 300, Sartell, MN 56377-2485

320.229.4300 | 800.572.0617 | 888.908.8166 fax

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to select the CMAR. After the CMAR is selected, the engineer collaborates with the CMAR to design the project to 100% and CMAR provides the City with a guaranteed maximum price (GMP) for the project.

Because the City has not made any decisions on which delivery method to proceed with, SEH is providing this proposal for 30% design. The benefits to the City for doing 30% design now include:

- Keeps the project moving – the aging infrastructure issues at the WWTF could result in failures of equipment or structures as time passes
- Continues to advance the design to reduce construction cost escalation
- Gives the City time to learn more about CMAR and have further discussions about which delivery method is best suited for this project
- Gets the project closer to being “shovel ready” which could help leverage funding requests

After 30% design the City will select a delivery method for the project and SEH will provide a proposal for the remaining design work. The scope of the proposal for the remaining design will vary depending on the selected delivery method.

SCOPE OF SEH SERVICES

SEH proposes the following work scope for 30% design of the WWTF Expansion project based on the recommended alternative in the approved Facility Plan.

Task 1: Project Management

SEH will provide ongoing management, administration, and coordination of the 30% design effort, keeping the City fully informed of the project status for the length of the project and providing quality assurance/quality control for the project deliverable. The following responsibilities are assumed:

1. Develop a project management plan as necessary to convey the requirements of the project design to the design team.
2. Establish and maintain effective project communications with City, design staff, and review agencies.
3. Coordinate the work of design team members.
4. Coordinate design meetings, both internal and with the City.
5. Prepare a memo regarding a recommendation for a delivery method (traditional design-bid-build or CMAR) in collaboration with the City.

Task 2: Pre-Design Work

Pre-design work includes those activities that are needed by other design team members to perform design work. These activities include the following:

1. Plant Site Visits – this provides the opportunity for City staff and the engineer to visit up to three (3) wastewater treatment facilities to see proposed equipment and interact with staff currently operating the equipment. One of the visits will be to the Winona WWTF to see the Nuvoda system they are currently piloting. The Nuvoda system is the recommended alternative for secondary treatment at the Big Lake WWTF. The other two visits can be selected based on City staff preferences for what equipment they want to see. This proposal assumes the facilities visited are within 100-200 miles of Big Lake.

2. Biological Modeling – SEH will develop a biological model of the proposed system which can help understand how to maximize biological phosphorus removal and other treatment efficiencies. It will also help consider improvements needed for future regulations like nitrogen so we can set up the design to more easily accommodate other improvements needed in the future. The biological modeling will require the City to perform some sampling and the results will be used in the model. A sample plan will be prepared and provided to the City.
3. 3-D Scanning – SEH will use a 3-D scanner to model all existing structures which are proposed to be modified or reused in some way in the project, including:
 - a. Biosolids Processing Building
 - b. Pretreatment Building
 - c. Administration Building
 - d. Biosolids Control Building

The 3-D scanning allows us to build our design models on accurate data rather than relying solely on record drawings which may not be accurate, available, or complete. The data allows us to view those buildings and see everything in them. This helps us during design to avoid conflicts and even allow us to take measurements if needed without having to travel to the site.

4. Topographic Survey – SEH will prepare a topographic survey of all project sites, including the WWTF site, the old lift station site, the new lift station site, and the forcemain route. The topographic survey includes:
 - a. Elevations of contours, structures, inverts, soil boring locations, and other objects on the site.
 - b. Location of marked utilities to be included
 - c. Boundary work to determine property lines and right-of-way (ROW)
 - d. Set benchmarks on site for use during construction
 - e. Develop the survey for use in the design
5. Asbestos Inspection and Regulated Materials Assessment – The WWTF Expansion project includes demolition and modification of existing buildings and structures. Due to the age of some of those buildings and structures it is necessary to remove any regulated materials before work starts in those areas. This includes the old lift station, the new lift station, and the WWTF.
 - a. SEH will provide certified Asbestos Inspectors to collect up to 200 bulk samples from areas that are anticipated to be disturbed during renovations. Structures that contain asbestos will be identified and the asbestos content quantified for future abatement prior to starting work in those areas.
 - b. SEH will complete a walk-through and inspect structures to determine the presence and location of regulated materials on site or contained within the building materials. A list of equipment to be removed or replaced will be based on information provided in the 30% design documents. This assessment includes fluorescent bulbs/ballasts, mercury containing switches and other equipment, CFCs, containers, etc. Limited lead-based paint testing within the areas proposed for renovation or demolition will also be conducted. The testing will be conducted by Environmental Health Testing Services as a subcontractor to SEH. This proposal also includes collection of ten (10) caulk samples for analyses for polychlorinated biphenyls (PCBs).

- c. Limitations of Assessment
 - i. Some areas may be inaccessible. The inspection will attempt to identify hazardous material in inaccessible areas, however, it may not be feasible to inspect 100 percent of these areas. SEH cannot be held responsible for the presence of any such hidden materials.
 - ii. Sampling of materials for asbestos may cause some damage. However, every effort will be made to limit cuts and holes to discreet locations. SEH will not be responsible for repairing material damaged during sampling.
 - iii. Roofing material on the old lift station that will be demolished will be sampled and temporary patches will be placed in the core locations. We recommend that a professional and qualified roofer repair the locations to maintain roof integrity.
 - iv. In order to maintain integrity of existing buildings that will be reused, no roofing materials will be sampled. For the purpose of this inspection, roofing and flashing materials on these buildings will be assumed to contain asbestos until proven otherwise by sampling and analysis, likely during construction.
- d. Environmental Monitoring
 - i. During collection of soil borings at the old lift station site SEH will conduct environmental monitoring and sampling to assess if a petroleum release has occurred where a fuel oil underground storage tank (UST) is present. Soil samples will be screened for organic vapors, up to two soil samples will be collected from the soil boring for chemical analysis, and a groundwater sample will be collected and analyzed.
- e. Deliverable
 - i. Following receipt of analytical testing results, SEH will prepare a report presenting the data collected in the filed investigation. The report will include figures, tables, boring logs, laboratory reports, conclusions, and recommendations.
- 6. Geotechnical Site Exploration and Report – SEH will coordinate soil borings and laboratory testing, prepare a geotechnical report to evaluate the subsurface profile and groundwater conditions, and perform engineering analyses related to structure design.
 - a. The soil borings will be performed by a drilling and testing subcontractor under subcontract to SEH. The owner must grant SEH and its drilling subcontractor access to all of the sites identified.
 - b. SEH will mark the proposed boring locations prior to the drillers mobilizing on site.
 - c. The subcontractor will clear public utilities using Gopher State One Call (GSOC). If there are private utilities, i.e. those not marked by GSOC locates, the City must notify SEH so proper locates can be arranged.
 - d. The following field subsurface investigation is proposed:

- i. Old Lift Station: Two (2) standard penetration test (SPT) borings will be performed to a depth of about 20 feet and 90 for evaluation of the removal of the old lift station.
 - ii. Main Lift Station: Seven (7) SPT borings to a depth of about 20 feet each will be completed along the new forcemain alignment from the Main Lift Station to the WWTF. These borings will help estimate soil parameters, subgrade and backfill recommendations.
 - iii. Wastewater Plant Site: Fourteen (14) SPT borings will be completed at depths ranging from about 20 to 50 feet for the various building improvements.
 - e. Samples retrieved during drilling will be reviewed, classified and logged under the direction of a geotechnical engineer. Select samples may be set aside for laboratory testing. SEH has assumed 50 moisture content tests and 10 gradations for this proposal. These tests will help guide our recommendations for structure design.
 - f. Data obtained from the borings and laboratory tests will be used to evaluate the subsurface profile and groundwater conditions, perform engineering analyses related to structure design and prepare a report, including:
 - i. A soil boring location figure showing approximate soil boring locations.
 - ii. Logs of the borings describing the materials encountered and presenting the results of groundwater measurements and laboratory tests.
 - iii. A summary of the subsurface soil profile and groundwater conditions.
 - iv. Discussion identifying the site conditions and the potential impact on the proposed structures qualifying the nature of their impact and outlining alternatives for mitigating their impact.
 - v. Providing an estimated allowable soil bearing pressure for spread footing design and an estimated settlement under assumed or given structural loads.
 - vi. Discussion regarding the reuse of on-site materials during construction and the impact of groundwater on construction.
 - vii. Recommendations for preparing structure subgrades, including excavation support, dewatering and the selection, placement and compaction of backfill and structural fill.
 - viii. Recommendations for the design of spread footings.
- 7. Miscellaneous Coordination
 - a. Preliminary stormwater coordination to determine if there are any special requirements by local watershed authorities.
 - b. Preliminary coordination with the Minnesota Department of Transportation (MnDOT) or the County to determine any special requirements for the forcemain crossing near the WWTF site.

Task 3: 30% Design

The 30% design documents will consist of plan sheets only for the recommended improvements detailed in Exhibit 1 at the end of this proposal. These plan sheets, coupled with the Facility Plan, will be the basis for either continuing the design for a traditional design-bid-build or a Request for Qualifications

(RFQ) for selection of a CMAR. Plan sheets will be prepared by the following disciplines: Wastewater (Process), Structural, Civil, Architectural, Geotechnical, Mechanical, Electrical, and Instrumentation & Controls (I&C).

1. The 30% plans will generally show the following:
 - a. Discipline General sheets
 - b. Plant Preliminary Hydraulic Profile
 - c. Process Schematic
 - d. General layout of site improvements such sidewalks, pavement, stormwater ponds
 - e. General piping layouts – pipe and structures will be identified but will not include details such as size, locations, or inverts
 - f. Standard details
 - g. Basic sheet notes to indicate major components
 - h. Selective demolition of major components – includes structures and equipment
 - i. Preliminary foundation design
 - j. General location of major structural accessories such as hatches
 - k. Basic interior building layouts with major equipment, doors, windows, etc.
 - l. Preliminary wall sections and exterior elevations of new structures
 - m. Major wastewater process equipment
 - n. Process piping larger than 4" with flow direction
 - o. Major mechanical equipment for HVAC
 - p. Preliminary layout for ductwork
 - q. Preliminary potable water, plant water, drains, and natural gas piping
 - r. Preliminary lighting plans
 - s. Basic power and instrumentation plan showing major equipment
 - t. Preliminary one-line diagrams for major equipment
 - u. Preliminary process flow diagrams as the basis for future Process and Instrumentation Diagrams (PIDs)
2. NPDES Permit Major Modification application
 - a. For anticipated construction projects all WWTF must apply for permit modifications to include construction activities and the proposed changes to the WWTF.
 - b. The Minnesota Pollution Control Agency (MPCA) has indicated that the permit modification should be done early in the process due to length of time needed for preparing the modified permit, Environmental Protection agency (EPA) review, and for public notice. Please note that the EPA review time may be longer than typical due to the City's request to expand capacity and their review of the Antidegradation Review that was prepared to justify certain permit limits for an expanding facility.
 - c. SEH will assist the City in preparing the application for the permit major modification near the end of the 30% design effort.
 - d. This proposal does not include services related to responding to a contested permit or any design changes for the recommended improvements based on comments received from EPA on the permit or the Antidegradation Review. Those services would be considered Additional.
3. The following items will not be included in the 30% design:

- a. Engineer's Opinion of Probable Cost – if the 30% design is used to select a CMAR, the latest cost estimate from the Facility Plan will be used to identify a range for project costs to be used in the RFQ.
- b. Specifications or contract documents.

Task 4: Meetings and Site Visits

Meetings are necessary to keep everyone informed, make design decisions, and coordinate all the disciplines necessary to prepare a 30% design. The following meetings are included in this proposal:

1. Kickoff Meeting between the City and SEH – this meeting will be in person.
2. Internal Design Kickoff Meeting with SEH design team (internal SEH only).
3. Discipline Site Visits – each discipline will visit the site once with two team members to aid in their design efforts; these visits will be coordinated with Dan Childs.
4. Monthly design team meetings for discussion and coordination (internal SEH only).
5. Design check-in meetings with the City – this proposal includes three in-person meetings and three virtual meetings to update the City on the design progress and discuss design decisions or questions.
6. 30% Design meeting between the City and SEH to review and discuss the 30% plans – this meeting will be in person.
7. 30% Design meeting for SEH design team to review comments provided by the City.
8. Final meeting between City and SEH to discuss the delivery method for the project (traditional design-bid-build or CMAR) – this meeting will be in person.

Excluded Tasks:

The following tasks are not included in the Scope of Work:

1. Evaluate and comment on any contested issues related to the City's NPDES Permit modification.
2. Permit costs. SEH will coordinate with permitting agencies, but the City is responsible for permitting costs.
3. Laboratory costs for wastewater samples needed for biological modeling. SEH will identify samples needed for the model, but the City will be responsible for collecting the samples, transporting them to the laboratory, and the cost for analyzing the samples.
4. Assistance with any pilot studies including Nuvoda or dissolved air flotation (DAF) for sludge thickening. If the City desires to pilot a system and it's determined to be applicable, SEH can develop a proposal to assist with coordination of the pilot. Because the treatment processes will be changing it may not make sense to pilot technology on the current processes as results may not apply to the proposed processes.
5. Engineering services for design of the project beyond 30% as described in the scope above.
6. Engineer's Opinion of Probable Cost. If the City chooses to proceed with CMAR as the delivery method, the CMAR will develop the project cost estimate.
7. Additional services due to significant changes in the general scope of the Project, including, but not limited to, change in size, complexity, or character or caused by revisions to regulations or code requirements administered by MPCA, EPA, Department of Labor and Industry (DOLI), Department of Natural Resources (DNR), or other entities based on revisions that occur after the project commences.
8. Review of and assistance with ordinances, industrial permits, or rate studies.

9. Arranging additional locates for private utilities not covered by GSOC.
10. Preparation of a Request for Qualifications (RFQ) or Request for Proposals (RFP) for selecting a CMAR. This has not been included at this time because the City has not decided to proceed with CMAR as the delivery method.
11. Additional meetings beyond those identified in Task 4 above.

City Participation:

City staff participation in the 30% design phase is essential for the exchange of information/data, review of evaluation results, and discussion of preferences. The design improvements must provide appropriate treatment, but also meet the needs of the operation staff for operation and maintenance. Good communication between the City staff and SEH will help provide a product that meets the City's needs.

The following identifies the anticipated level of City participation:

1. Communication of needs and questions.
2. Assist SEH by placing all available information pertinent to the Project at SEH's disposal
3. Guarantee access to and make all provisions for SEH and our subcontractors to enter upon lands required for SEH to perform the work under this agreement including the old lift station site, new lift station, forcemain route, and WWTF site.
4. Pay all City costs related to technology/equipment site visits.
5. Provide timely review of design deliverables and feedback.
6. Collect samples needed for biological modeling, coordinate with a testing laboratory, and share results received from laboratory.

Estimate of Effort:

The estimated lump sum fee for the scope described is \$1,077,200 as summarized below.

TASK	TOTAL
Task 1: Project Management	\$82,300
Task 2: Pre-Design	\$130,500
Task 3: 30% Design	\$781,800
Task 4: Meetings & Site Visits	\$82,600
TOTAL	\$1,077,200

The breakdown of fees is to be considered transferrable between tasks as may be needed to complete the project scope in its entirety as described herein.

Schedule:

Assuming the City Council will consider and approve a contract with SEH during the second meeting in September, a kick-off meeting will be scheduled within three weeks and many of the pre-design tasks will be scheduled to occur before November 30. Please note that many of the pre-design tasks such soil borings, 3D scanning, topographic survey, and even the hazardous assessment are best suited to occur prior to the start of winter and should be scheduled as soon as possible. The following are the major milestones for the anticipated schedule.

Mr. Paul Knier
September 2, 2024
Page 9

Notice to Proceed
Kick-off Meeting (City, SEH)
Pre-Design
30% Design

September 25, 2024
by October 11, 2024
completed by November 30, 2024
completed by May 31, 2024

Summary:

We look forward to working with you on this very important project for the City of Big Lake. If you have any questions regarding the scope, schedule, or fee presented in this letter, please feel free to contact me at 612.247.2768 or jhedin@sehinc.com. Thank you.

Sincerely,

SHORT ELLIOTT HENDRICKSON INC.



Jessica Hedin, PE
Project Manager
(Lic. MN, SD)

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Attachment – Exhibit 1 Detailed List of Recommended Improvements

c: Dan Childs, City of Big Lake
Hanna Klimmek, City of Big Lake
Deb Wegeleben, City of Big Lake
Jeff Ledin, SEH

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EXHIBIT 1 – DETAILED LIST OF RECOMMENDED IMPROVEMENTS

Project: Big Lake WWTF Expansion Project
Project Manager: Jessica Hedin, SEH

Detailed List of Recommended Improvements:

Main Lift Station (Existing, Rehabilitation)

- Demolish existing old main lift station (separate site from existing main lift station).
- Replace existing 20 HP submersible pumps with 50 HP pumps.
- Replace existing 50 HP high flow submersible pumps with 100 HP pumps.
- Add coarse bubble aerator to wetwell and regenerative blower to drywell.
- Replace existing isolation valves, relief valves, piping, and accessories.
- Existing Forcemains:
 - 8-inch: Replace isolation valves, relief valves along existing alignment.
 - 12-inch: Replace isolation valves, relief valves along existing alignment.
- New Forcemain (approx. 1 mile):
 - New 18-inch HDPE forcemain with relief structures and crossing for county road 14.
 - Assume need to provide utility easement adjacent to existing forcemain.
- Replace existing automatic controls including programmable logic controllers (PLCs) with human machine interface (HMI) displays for remote control and monitoring.
- Add new automatic transfer switch for backup generator (125 kW) - Assume new generator required with pump replacement.
- Replace Existing interior process piping, equipment, and architectural coatings.

Preliminary Treatment (Existing, Rehabilitation)

- Replace influent screens, washers, and compactors with system suitable for recommended secondary treatment alternative.
- Add redundant grit pump.
- Replace grit classify and washer cyclone.
- Add recirculation submersible pump after flow measurement to a sample chamber on wall in screen room opposite automatic sampler.
- Add online pH meter after flow measurement.
- Replace existing electric unit heaters.
- Replace existing Makeup air unit.
- Replace existing plumbing piping, fittings, hangers, and accessories.
- Replace existing interior process piping, equipment, and architectural coatings.

- Replace existing automatic controls including programmable logic controllers (PLCs) with human machine interface (HMI) displays for remote control and monitoring.
- Replace existing automatic sampler.
- Replace existing influent flow measurement instrumentation.
- Replace existing exterior personnel and overhead doors.

Selector Basins

- Repair existing concrete spalling on concrete cover.
- Replace process piping, flow control gates, and baffle walls.
- Replace electrical, controls, and instrumentation.
- Add instrumentation to monitor oxidation reduction potential (ORP).
- Replace existing cover-mounted mechanical mixers with submersible mixers. Add remote controls and communication to SCADA.
- Apply interior coatings from 1 foot below normal water elevation to top of sidewall and underside of concrete cover slab.
- Construct of a third selector cell adjacent to the existing selector tanks. Approximately 27'-0" x 25'-0" with common wall to existing selector tanks. 12'-0" NWL.

Activated Sludge Basins 1, 2, and 3 (Existing, Rehabilitation)

- Convert existing oxidation ditches to Mobile Organic Biofilm (MOB) Activated Sludge
 - Remove oxidation ditch 1 aerator and aerator building.
 - Remove oxidation ditch 2 and 3 brush aerator and enclosures.
 - Add mobile fixed-film media at 1.25% fill in each oxidation ditch.
 - Fine-bubble diffused aeration equipment installed in each oxidation ditch.
 - Construct new Blower Building.
- Replace current chemical feed equipment and dosing locations with equipment at new Disinfection and Pumping Building.
- Remove all equipment from existing chemical feed building.
- Automatic controls from PLC in Blower Building.
- Apply interior coatings from 1 foot below normal water elevation to top of sidewall and underside of concrete cover slab.

Blower Building (New)

- New precast concrete building, precast plank roof, cast-in-place concrete foundation with water-retaining wetwells and basement area of pumps.
- HVAC and controls to ventilate to derate.
- Main Level (dry side):
 - WAS drum screen.
 - Blowers, controls, and piping for each converted oxidation ditch.
- Lower Level (dry side):
 - Screened WAS pumps to DAF Feed Storage/DAF or Aerobic Digesters.
 - Retained WAS media pumps to Selector Basins.

- Lower Level (wet side):
 - Screened WAS wetwell.
 - Retained WAS media wetwell.
- Automatic controls including programmable logic controllers (PLCs) with human machine interface (HMI) displays for remote control and monitoring.
- Add new existing interior process piping, equipment, and architectural coatings.

Final Clarifiers (New)

- Existing (3) 34' DIA final clarifiers:
 - Remove existing clarifier mechanisms, domes, doors, and HVAC equipment.
 - New aluminum dome covers for each tank.
 - Convert existing clarifiers to holding tanks.
 - (2) Tanks for DAF influent storage.
 - (1) Tank for DAF underflow (clear water) storage.
 - Add compressed air mixing diffusers and control equipment for mixing -compressors located in Biosolids Control Building.
 - Remove existing sludge pumping and control structures.
 - Remove existing splitter structure.
- Construct two new 60' diameter final clarifier tanks.
 - Suction header removal mechanism.
 - Aluminum dome covers.
 - Ventilation upon entry (primary point of settling).
 - Add ultrasonic sludge level transducers with wipers to each tank for monitoring sludge blanket depth.
 - Coatings from 1 foot below normal water elevation across top of tank wall, including all of the concrete launderer.
 - New splitter structure. Approximately 24'-0" x 16'-0" and 10'-0" deep with process slide gates.
- Replace current RAS/WAS pumping with equipment at new Disinfection and Pumping Building.
- Automatic controls from PLC in Disinfection and Pumping Building.

Disinfection and Pumping Building (New)

- New precast concrete building, precast plank roof, cast-in-place concrete foundation with water-retaining wetwells and basement area of pumps.
 - Approximately 40'-0" x 70'-0". Main level and lower level. Assume wall height at main level of 16'-0". Assume wall height of lower level at 16'-0".
- HVAC and controls to ventilate to derate.
- Coagulant Storage
 - Design chemical is ferric chloride (assume storage volume of 8,000 gallons)
 - Ventilation, wet-sprinkled, containment (similar approach as Winona is likely)
- Disinfection

- In-channel UV disinfection (no UVT meter). Two trains in series (1 duty 1 standby at AWW, 2 duty as PHWW).
- Effluent flow meter (weir with radar level indicator post disinfection).
- Discharge to existing outfall piping.
- Adjacent storage area for lamps. Davit or overhead monorail for rake removal from channels.
- RAS/WAS pumping
 - (3) WAS pumps from new final clarifiers to blower building.
 - (3) RAS pumps from new final clarifiers to selector basins.
- DAF Pumping and Equipment
 - (2) Air compressors
 - (1) Saturation tank
 - (2) Recirculation pumps (DAF through saturation, back to DAF)
 - (2) DAF Feed pumps (DAF Feed Storage to DAF)
 - (2) DAF Thickened Sludge Pumps (DAF to Aerobic Digester)
 - (2) Underflow Storage Pumps (Underflow Storage to Selector Tanks)
 - (1) polymer blending and feed system with polymer storage area (assume space for (8) IBC totes - 2,200 gallons).
- Sludge Receiving Pumping and Equipment
 - (2) waste sludge pumps with grinders to pump from sludge receiving to DAF to digesters.
- Plant Effluent Pumps
 - Wet-well or other water-retaining structure after UV disinfection. Reuse water for:
 - Influent screens in preliminary treatment building
 - Retained WAS media wetwell of blower building
 - WAS Screen in blower building
 - DAF Thickener (shutdown wash water)
 - Site yard hydrants
 - Skid-mounted plant water booster pumps and expansion tank.
 - 100 psi design pressure.
- Electrical “building”
 - New site service with ATS to new generator.
 - New generator for south side of plant (Does not include the main lift station, preliminary treatment, or biosolids processing facility).
- Automatic controls including programmable logic controllers (PLCs) with human machine interface (HMI) displays for remote control and monitoring.

Dissolved Air Thickener (New)

- New 12' diameter cast-in-place concrete DAF tank with float tank and underflow tank (overflow tank may passively overflow to underflow tank).
- Mechanism, bridge, aluminum dome cover, ventilation.
- Class I Division 1.

- Pumping, aeration, and controls at new Disinfection and Pumping Building.
- Automatic controls from PLC in Disinfection and Pumping Building.
- Add new interior process piping and equipment coatings.

Sludge Receiving (Existing, Rehabilitation)

- Convert existing waste sludge storage to sludge hauling and receiving tank. Add piping for sludge truck discharge.
- Add compressed air mixing diffusers and control equipment for mixing -compressors located in Biosolids Control Building.
- New transfer pumps at Disinfection and Pumping Building.
- Automatic controls from PLC in administration building.
- Replace existing interior process piping and equipment coatings.

Biosolids Control Building and Aerobic Digesters (Existing, Rehabilitation)

- Biosolids Control Building:
 - Replace existing roof of control.
 - Replace existing HVAC equipment.
 - Replace existing electrical, controls, and instrumentation.
 - Remove existing coarse bubble diffused aeration equipment (Blowers and piping).
 - Remove boiler and recirculation pumps for heating aerobic digester are not used.
 - Replace existing exterior personnel doors.
 - Replace existing interior process piping, equipment, and architectural coatings.
 - Add new fine-bubble diffused aeration blowers for aerobic digesters.
 - Add new compressors and receivers for compressed air mixing at underflow storage, DAF feed storage, sludge receiving, aerobic digesters, selector tanks, activated sludge basins.
- Existing Primary Aerobic Digester:
 - Remove existing coarse bubble diffused aeration equipment (Piping and diffusers).
 - Add new fine-bubble diffuser aeration piping and diffusers (blowers in biosolids control building).
 - Add new compressed air mixing piping and diffusers (compressors in biosolids control building).
 - Replace existing roof of aerobic.
 - Minor concrete repair is likely required on interior walls of aerobic digester.
 - Cut-in sump for new drain/transfer sludge pump to aerobic digester.
 - Replace existing level indicators for tank.
 - Add new ORP and DO instrumentation.
 - Replace existing interior process piping and equipment coatings.
- Existing Secondary Aerobic Digester:
 - Convert to primary aerobic digester.
 - Add aluminum cover.
 - Remove existing coarse bubble diffused aeration equipment (Piping and diffusers).

- Add new fine-bubble diffuser aeration piping and diffusers (blowers in biosolids control building).
- Add new compressed air mixing piping and diffusers (compressors in biosolids control building).
- Cut-in sump for new drain/transfer sludge pump to liquid sludge storage.
- Replace existing level indicators for each treatment tank.
- Add new ORP and DO instrumentation.
- Replace existing interior process piping and equipment coatings.
- New Primary Aerobic Digester:
 - Construct new second primary aerobic digester with pipe gallery between existing primary aerobic digester. Cast-in-place concrete walls and foundation with precast plank roof and membrane roofing system (similar to existing).
 - Identical in size to existing primary digester, plus sump and gallery.
 - 54'-8" x 35'-6" interior, 16'-0" NWL.
 - Add new fine-bubble diffuser aeration piping and diffusers (blowers in biosolids control building).
 - Add new compressed air mixing piping and diffusers (compressors in biosolids control building).
 - Add new level indicators for tank.
 - Add new ORP and DO instrumentation.
 - Add new existing interior process piping and equipment coatings.

Biosolids Processing Building (Existing, Rehabilitation)

- Replace existing air conditioning unit for the electrical room.
- Replace existing radiant heat boiler controls.
- Replace existing PLC panel and controls.
- Replace existing centrifuge liquid sludge feed pumps.
- Replace existing centrifuge PLC panels and VFD drive for centrifuge #1.
- Replace existing central odor control system and relocate outside to not obstruct service of process equipment.
- Add new chemical eyewash and shower for the polymer chemical feed equipment.
- Add new shower for staff in the lavatory.
- Replace existing alternate cake loadout to reduce spillage of cake between load out.
- Add new water heater for polymer dilution water.

Cake Storage Building (New)

- Cast-in-place concrete pad with channel drain.
- 8-foot push walls and be 60-feet by 200-feet.
- The approximate storage volume for design would be 3,600 cubic yards. The concrete storage would be covered using a pre-engineered steel frame and 28 oz PVC fabric roof system.
- New roofing system would include ice breaker cleats and the steel frame system would be galvanized.

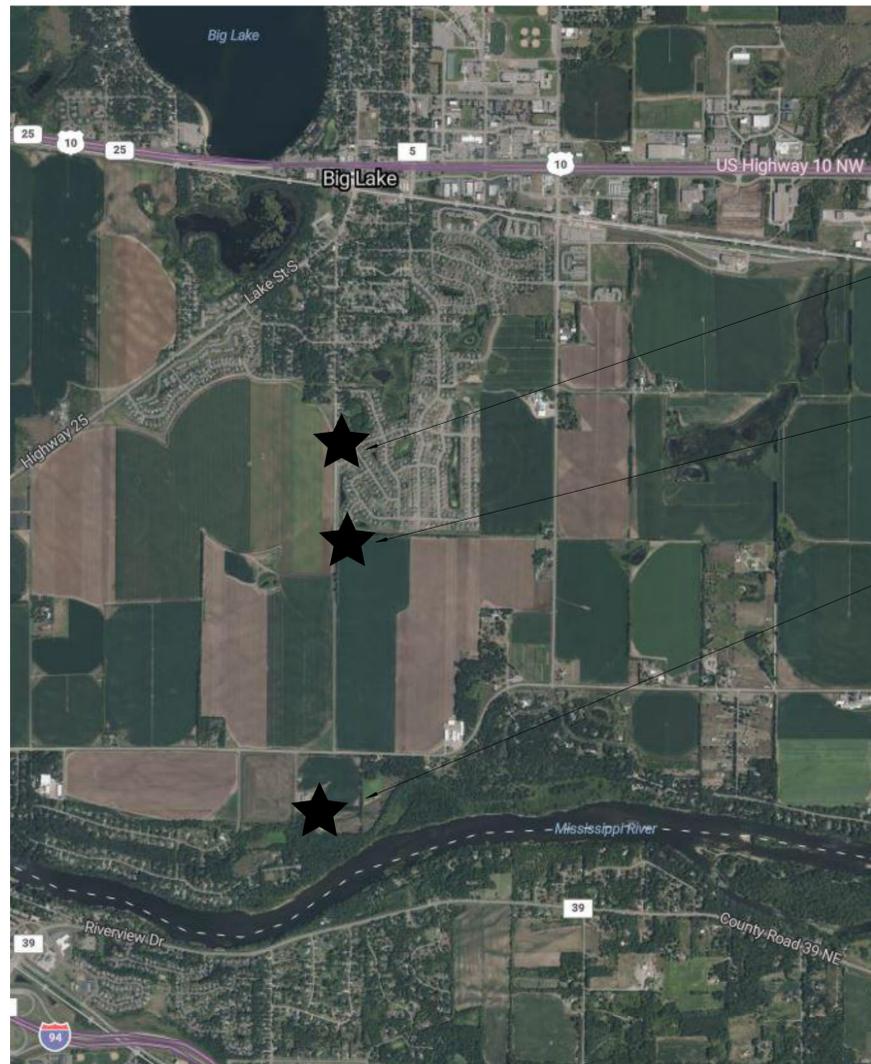
Administration Building (Existing, Rehabilitation)

- Demolish and infill lower level of process room in Administration Building.
- Pour at-grade floor with trench drain and flammable waste interceptor for:
 - Maintenance garage,
 - Functional bathroom group, and
 - Separate shower facilities.
- Add new destratification exhaust fans and gas detection equipment.
- Remove exterior wall for overhead garage door.
- Replace Roof with fully adhered EPDM.
- Repair exterior CMU.
- Replace interior architectural coatings.
- Replace exterior architectural coatings.
- Remove existing boiler, replace with forced air furnace, and air conditioning.
- Replace existing PLC and SCADA system.
- Remove and route sanitary drain to intermediate plant lift station.
- Replace (6) existing 36" wide and (1) 72" wide double-leaf exterior hollow metal doors with new aluminum doors.
- Replace existing interior process piping, equipment, and architectural coatings.

Site Improvements

- New fiber communications.
- Generator with sufficiently sized unit in all-weather enclosure - ATS located at Disinfection and Pumping Building.
- Remove, replace, and add new site lighting.
- Remove, replace, and add new site asphalt.
- Remove, replace, and add new site 6'-0" chain-link fence.
- Remove and replace site stormwater system as needed (need to determine if a stormwater pond in necessary - it may be).
- Add new concrete walk.
- Replace front gate with motor-operated gate, card scanner (software by City), and camera (software by City).
- Remove existing and relocate septage receiving.
 - Cast-in-place concrete structure with controls gates.
 - Approximately 30'-0" x 40'-0" with control structure. Depth to frost as needed 1'-0" above grade with guardrail.
 - Add new interior process piping and equipment coatings.

CONSTRUCTION DRAWINGS FOR BIG LAKE WASTEWATER TREATMENT FACILITY EXANSION PROJECT BIG LAKE, MINNESOTA



PROJECT LOCATION MAP

- ★ OLD LIFT STATION
19143 COUNTY ROAD 68
BIG LAKE, MN 55309
- ★ MAIN LIFT STATION
18889 COUNTY ROAD 68
BIG LAKE, MN 55309
- ★ BIG LAKE WASTEWATER TREATMENT FACILITY
18999 COUNTY ROAD 14
BIG LAKE, MN 55309

Due to the extensive size of the file, only Ssection G is included in the February 18, 2026 Council Workshop Packet.

A full set of plans will be available at the Workshop for public viewing.



BIG LAKE, SHERBURNE
COUNTY, MINNESOTA

MINNESOTA

SHEET INDEX

GENERAL

G001	TITLE SHEET
G002	SHEET INDEX
G003	SITE IDENTIFICATION PLAN
G004	SITE IDENTIFICATION PLAN
G005	SITE IDENTIFICATION PLAN
G006	SITE IDENTIFICATION PLAN
G007	SITE IDENTIFICATION PLAN
C001	CIVIL LEGEND AND NOTES
S001	GENERAL STRUCTURAL ABBREVIATIONS, SYMBOLS AND TABLES
S002	GENERAL STRUCTURAL NOTES
S003	GENERAL STRUCTURAL NOTES
A001	GENERAL INFORMATION AND ABBREVIATIONS
A002	ACCESSIBILITY STANDARDS AND DETAILS
A003	ACCESSIBILITY STANDARDS AND DETAILS
A011	PARTITION TYPES AND CONSTRUCTION ASSEMBLIES
P001	GENERAL PROCESS INFORMATION
P003	HYDRAULIC PROFILE - PEAK FLOW CONDITIONS
P400	UNIT PROCESS DIAGRAM, LEGEND, AND ABBREVIATIONS
P401	MAIN LIFT STATION PFD
P402	PRE TREATMENT BUILDING PFD
P403	OXIDATION DITCHES AND BLOWER BUILDING PFD
P404	FINAL CLARIFIERS, THICKENER AND DAF TANKS PFD
P405	DISINFECTION AND PUMPING BLDG (SLUDGE PUMPING AND EFFLUENT) PFD
P406	DISINFECTION AND PUMPING BLDG (CHEMICAL FEED) PFD
P407	BIO SOLIDS PROCESSING FACILITY PFD
P408	SLUDGE RECEIVING PFD
P409	BIO SOLIDS CONTROL BUILDING PFD
P410	THICKENING BUILDING PFD
E001	SYMBOLS, ABBREVIATIONS, AND NOTES
E071	ONE-LINE DIAGRAM - SITE ELECTRICAL REMOVAL
E072	ONE-LINE DIAGRAM - SITE NETWORK REMOVAL
E102	ONE-LINE DIAGRAM - SITE ELECTRICAL NEW
E103	ONE-LINE DIAGRAM - SITE NETWORK NEW
C071	REMOVAL PLAN
C072	REMOVAL PLAN
C073	REMOVAL PLAN
C074	REMOVAL PLAN
C075	REMOVAL PLAN
C076	REMOVAL PLAN
C077	REMOVAL PLAN
C078	REMOVAL PLAN
C101	OVERALL SITE PLAN & SURVEY CONTROL
C102	OVERALL SITE PLAN & SURVEY CONTROL
C103	OVERALL SITE PLAN & SURVEY CONTROL
C104	OVERALL SITE PLAN & SURVEY CONTROL
C105	OVERALL SITE PLAN & SURVEY CONTROL
C106	OVERALL SITE PLAN & SURVEY CONTROL
C107	OVERALL SITE PLAN & SURVEY CONTROL
C108	OVERALL SITE PLAN & SURVEY CONTROL
R001	BUILDING REMOVAL PLAN
R002	BUILDING REMOVAL PLAN
R003	BUILDING REMOVAL PLAN
R1	SPLITTER STRUCTURE
R1 P071	REMOVALS PLAN AND SECTIONS
R2	RAS-WAS PUMPING STATION
R2 S071	DEMOLITION - FOUNDATION AND TOP OF TANK PLANS
R2 S072	DEMOLITION - BUILDING SECTIONS
R2 P071	REMOVALS PLANS AND SECTIONS
R3	OLD LIFT STATION
R3 P071	REMOVALS PLANS
R3 P072	REMOVALS SECTIONS
R4	SELECTOR TANK
R4 S071	DEMOLITION - FOUNDATION PLAN
R4 S072	DEMOLITION - TOP OF TANK PLAN
R4 P071	REMOVALS PLAN AND SECTION
R5	EFFLUENT DIVERSION STRUCTURE
R5 P071	REMOVALS PLAN AND SECTION
R6	STORAGE BUILDING
R6 P071	REMOVALS PLAN
R6 P072	REMOVALS SECTIONS
01 - PRETREATMENT BUILDING	
01 S101	FOUNDATION AND LOWER LEVEL PLAN
01 S111	LEVEL 1 PLAN
01 S121	ROOF PLAN
01 S301	BUILDING SECTIONS
01 A001	CODE INFORMATION - LOWER AND MAIN LEVELS
01 A071	DEMOLITION PLANS - LOWER AND MAIN LEVELS
01 A101	FLOOR PLANS - LOWER AND MAIN LEVELS
01 A201	EXTERIOR ELEVATION, DOOR SCHEDULE, DETAILS
01 P071	REMOVALS PLAN
01 P072	REMOVALS SECTIONS
01 P101	MAIN LEVEL PLAN
01 P301	SCREEN CHANNEL SECTION
01 P401	GRIT PUMPING PLAN AND SECTIONS
01 M071	MECHANICAL DEMOLITION PLAN
01 M101	MECHANICAL PLAN
01 E071	ONE-LINE DIAGRAM - REMOVAL
02 - SPLITTER STRUCTURE	
02 S101	FOUNDATION PLAN
02 S111	TOP OF TANK PLAN
02 S301	STRUCTURE SECTIONS
02 P101	PLAN AND SECTIONS

03 - ADMINISTRATION BUILDING

03 S071	DEMOLITION - LEVEL 1 / TOP OF TANK PLAN
03 S101	FOUNDATION PLAN
03 S111	LEVEL 1 / TOP OF TANK PLAN
03 S121	ROOF PLAN
03 S301	BUILDING SECTIONS
03 S302	BUILDING SECTIONS
03 A001	CODE INFORMATION
03 A071	DEMOLITION PLANS - BASEMENT AND MAIN LEVELS
03 A101	FLOOR PLAN - MAIN LEVEL
03 A102	ROOF PLAN, DETAILS
03 P070	REMOVALS PLAN AND SECTION
03 P071	LOWER LEVEL REMOVALS PLAN AND SECTION
03 P072	MAIN LEVEL REMOVALS PLAN
03 P073	REMOVALS SECTIONS
03 P074	REMOVALS SECTIONS
03 P101	LOWER LEVEL PLAN
03 P102	UPPER LEVEL PLAN
03 P301	SECTIONS
03 P302	SECTIONS
03 M071	MECHANICAL DEMOLITION PLAN
03 M101	MECHANICAL PLAN
03 E072	ONE-LINE DIAGRAM - 03-MCC REMOVAL
03 E073	ONE-LINE DIAGRAM - 03-MCC REMOVAL
04 - AERATION TANK 2	
04 S071	DEMOLITION - TOP OF TANK PLAN
04 S101	FOUNDATION PLAN
04 S111	TOP OF TANK PLAN
04 P070	REMOVALS PLAN AND SECTION
04 P101	LOWER LEVEL PLAN
04 P102	WALKWAY LEVEL PLAN
04 P301	SECTIONS
04 P302	SECTIONS
05 - AERATION TANK 3	
05 S071	DEMOLITION - TOP OF TANK PLAN
05 S101	FOUNDATION PLAN
05 S111	TOP OF TANK PLAN
05 S301	BUILDING SECTIONS
05 P070	REMOVALS PLAN AND SECTION
05 P101	LOWER LEVEL PLAN
05 P102	WALKWAY LEVEL PLAN
05 P301	SECTIONS
05 P302	SECTIONS
06 - BLOWER BUILDING	
06 S101	FOUNDATION PLAN
06 S111	LEVEL 1 PLAN
06 S121	ROOF PLAN
06 S301	BUILDING SECTIONS
06 A001	CODE INFORMATION - GRADE LEVEL
06 A101	FLOOR PLAN - GRADE LEVEL
06 A102	ROOF PLAN AND ROOF DETAILS
06 A201	EXTERIOR ELEVATIONS
06 A202	EXTERIOR ELEVATIONS
06 A301	SECTIONS
06 A302	SECTIONS, CONSTRUCTION DETAILS
06 P101	MAIN LEVEL PLAN
06 P301	SECTIONS
06 M101	MECHANICAL PLAN
06 M102	MECHANICAL ROOF PLAN
06 E501	ONE-LINE DIAGRAM
06 E502	ONE-LINE DIAGRAM
07 - FINAL CLARIFIER SPLITTER STRUCTURE	
07 S101	FOUNDATION PLAN
07 S111	TOP OF TANK PLAN
07 S301	SECTIONS
07 P101	PLAN AND SECTIONS
08 - FINAL CLARIFIER SPLITTER STRUCTURE	
08 S101	FOUNDATION PLAN
08 S111	TOP OF TANK PLAN
08 S301	BUILDING SECTIONS
08 S302	BUILDING SECTIONS
08 P101	LOWER PLAN
08 P102	COVER PLAN
08M101	MECHANICAL PLAN
09 - DISINFECTION AND PUMPING BUILDING	
09 S101	FOUNDATION PLAN
09 S111	LEVEL 1 PLAN
09 S121	ROOF PLAN
09 S301	BUILDING SECTIONS
09 S302	BUILDING SECTIONS
09 A001	CODE INFORMATION
09 A101	FLOOR PLAN - BASEMENT
09 A102	FLOOR PLAN - GRADE LEVEL
09 A103	ROOF PLAN, ROOF DETAILS
09 A201	EXTERIOR ELEVATIONS
09 A301	BUILDING SECTIONS
09 P101	OVERALL PLAN
09 P401	RAS AND WAS PUMPS PLAN AND SECTIONS
09 P402	THICKENER FEED PUMPS PLAN AND SECTIONS
09 P403	UV DISINFECTION PLAN
09 P404	CHEMICAL STORAGE AND PUMPING AREA PLAN
09 M101	MECHANICAL PLAN
09 M102	MECHANICAL ROOF PLAN
09 E501	ONE-LINE DIAGRAM
09 E502	ONE-LINE DIAGRAM

10 - THICKENING BUILDING

10 S101	FOUNDATION PLAN
10 S111	LEVEL 1 PLAN
10 S121	ROOF PLAN
10 S301	BUILDING SECTIONS
10 A001	CODE INFORMATION
10 A101	FLOOR PLAN - MAIN LEVEL, SCHEDULES
10 A111	ROOF PLAN, ROOF DETAILS
10 A201	EXTERIOR ELEVATIONS
10 A202	EXTERIOR ELEVATIONS
10 A301	SECTIONS
10 A302	SECTIONS
10 P101	MAIN LEVEL PLAN
10 P102	THICKENING EQUIPMENT PLAN
10 P301	SECTIONS
10 M101	MECHANICAL PLAN
10 M102	MECHANICAL ROOF PLAN
10 E501	ONE-LINE DIAGRAM
10 E502	ONE-LINE DIAGRAM
12 - DAF FEED STORAGE	
12 P071	REMOVALS PLAN
12 P072	REMOVALS SECTIONS
12 P101	LOWER PLAN
12 P102	COVER PLAN
13 - UNDERFLOW TANK	
13 P071	REMOVALS PLAN
13 P101	LOWER PLAN
13 P102	COVER PLAN
14 - BIOSOLIDS CONTROL BUILDING	
14 S111	LEVEL 1 PLAN
14 S121	ROOF PLAN
14 S201	ELEVATIONS
14 S301	BUILDING SECTIONS
14 A001	CODE INFORMATION
14 A071	DEMOLITION PLANS - BASEMENT, MAIN LEVEL AND ROOF
14 A101	FLOOR PLAN - BASEMENT
14 A102	FLOOR PLAN - MAIN LEVEL
14 A103	ROOF PLAN
14 A201	EXTERIOR ELEVATIONS
14 A202	EXTERIOR ELEVATIONS
14 P071	MAIN LEVEL REMOVALS PLAN
14 P072	SLUDGE STORAGE REMOVALS PLAN AND SECTIONS
14 P073	DIGESTER REMOVALS PLAN AND SECTIONS
14 P101	OVERALL PLAN
14 P102	BIO SOLIDS CONTROL BLDG AND PRIMARY DIGESTER 1 PLAN
14 P103	PRIMARY DIGESTER 2 AND GALLERY PLAN
14 P104	SECONDARY AEROBIC DIGESTER PLAN
14 P111	SECONDARY AEROBIC DIGESTER COVER PLAN
14 P301	SECTIONS
14 P302	SECTIONS
14 P303	SECTIONS
14 M071	MECHANICAL DEMOLITION PLAN
14 M101	MECHANICAL PLAN - LOWER LEVEL
14 M102	MECHANICAL PLAN - MAIN LEVEL
14 M103	MECHANICAL ROOF PLAN
14 E071	ONE-LINE DIAGRAM REMOVAL
15 - BIOSOLIDS PROCESSING FACILITY	
15 A001	CODE INFORMATION
15 A002	CODE INFORMATION
15 A071	DEMOLITION PLANS - MAIN AND UPPER LEVELS
15 A101	FLOOR PLANS - MAIN AND UPPER LEVELS
15 P071	OVERALL REMOVALS PLAN
15 P072	REMOVALS PLAN AND PHOTOS
15 P073	REMOVALS SECTIONS AND PHOTOS
15 P101	PLAN AND SECTIONS
15 M071	MECHANICAL DEMOLITION PLAN
15 M101	MECHANICAL PLAN
15 E071	ONE-LINE DIAGRAM REMOVAL
15 E072	ONE-LINE DIAGRAM REMOVAL
15 E073	ONE-LINE DIAGRAM REMOVAL
16 - CAKE BIOSOLIDS STORAGE	
16 S101	FOUNDATION PLAN
16 S301	BUILDING SECTIONS
16 A001	CODE INFORMATION
16 A101	FLOOR PLAN - GRADE LEVEL
16 A111	ROOF PLAN
16 A201	EXTERIOR ELEVATIONS
16 A202	EXTERIOR ELEVATIONS, SECTIONS
16 A301	SECTIONS
18 - VACTOR RECEIVING	
18 S101	FOUNDATION PLAN
16 S301	BUILDING SECTIONS
19 - SLUDGE RECEIVING	
19 P071	REMOVALS PLANS AND SECTIONS
19 P101	LOWER PLAN
19 P102	UPPER PLAN
19 P301	SECTIONS

21 - MAIN LIFT STATION

21 A101	FLOOR PLANS, FINISH SCHEDULES
21 P071	REMOVALS PLANS
21 P072	REMOVALS SECTIONS
21 P101	WETWELL PLAN
21 P102	MAIN LEVEL PLAN
21 P301	SECTION
C501	DETAILS - CIVIL
C502	DETAILS - CIVIL
C503	DETAILS - CIVIL
C504	DETAILS - CIVIL
C505	DETAILS - CIVIL
C506	DETAILS - CIVIL
C507	DETAILS - CIVIL
C508	DETAILS - CIVIL
C509	DETAILS - CIVIL
C510	DETAILS - CIVIL
P501	PROCESS PIPING WALL PENETRATIONS
P502	PROCESS PIPING DETAILS
P503	PROCESS PIPING SUPPORT DETAILS
P504	MISCELLANEOUS PROCESS DETAILS
P505	MISCELLANEOUS PROCESS DETAILS

DETAILS

C501	DETAILS - CIVIL
C502	DETAILS - CIVIL
C503	DETAILS - CIVIL
C504	DETAILS - CIVIL
C505	DETAILS - CIVIL
C506	DETAILS - CIVIL
C507	DETAILS - CIVIL
C508	DETAILS - CIVIL
C509	DETAILS - CIVIL
C510	DETAILS - CIVIL

SHEET NUMBERING LEGEND

STRUCTURE IDENTIFIER OR SHEET TYPE

- 01** PRETREATMENT BUILDING
- 02** AERATION SPLITTER STRUCTURE
- 03** ADMINISTRATION BUILDING
- 04** AERATED TANK 2
- 05** AERATION TANK 3
- 06** BLOWER BUILDING
- 07** FINAL CLARIFIER SPLITTER STRUCTURE
- 08** FINAL CLARIFIERS
- 09** DISINFECTION AND PUMPING BUILDING
- 10** THICKENING BUILDING
- 11** IN-PLANT LIFT STATION
- 12** DAF FEED STORAGE
- 13** UNDERFLOW TANK
- 14** BIOSOLIDS CONTROL BUILDING
- 15** BIOSOLIDS PROCESSING FACILITY
- 16** CAKE BIOSOLIDS STORAGE
- 17** VACTOR RECEIVING
- 18** NOT USED
- 19** SLUDGE RECEIVING
- 20** NOT USED
- 21** MAIN LIFT STATION
- R1** SPLITTER STRUCTURE
- R2** RAS-WAS PUMPING STATION
- R3** OLD LIFT STATION
- R4** SELECTOR TANK
- R5** EFFLUENT DIVERSION STRUCTURE
- R6** STORAGE BUILDING

SERIES DRAWING NUMBER

- 000** GENERAL
- 100** PLAN VIEWS
- 200** ELEVATION VIEWS
- 300** SECTION VIEWS
- 400** LARGE SCALE VIEWS, PROCESS FLOW DIAGRAMS (PFD)
- 500** DETAILS
- 600** SCHEDULES
- 900** 3D VIEWS

DISCIPLINE

- G** GENERAL
- C** CIVIL
- S** STRUCTURAL
- A** ARCHITECTURAL
- P** PROCESS
- M** MECHANICAL
- E** ELECTRICAL

SHEET
01
P101



NOT FOR CONSTRUCTION

Project Owner

CITY OF BIG LAKE, MINNESOTA
160 LAKE STREET NORTH
BIG LAKE, MN 55309

CITY OF BIG LAKE, MINNESOTA
BIG LAKE WASTEWATER TREATMENT FACILITY
EXPANSION PROJECT
18989 COUNTY ROAD 14
BIG LAKE, MN 55309

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SEH Project: BIGLK 181589
Checked By: EJM
Drawn By: CRR

Project Status: 50% SUBMITTAL
Issue Date: 01/30/2026

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
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SHEET INDEX

G002



NOT FOR CONSTRUCTION

Project Owner
CITY OF BIG LAKE, MINNESOTA
18999 COUNTY ROAD 14
BIG LAKE, MN 55309

CITY OF BIG LAKE, MINNESOTA
**BIG LAKE WASTEWATER TREATMENT FACILITY
EXPANSION PROJECT**
18999 COUNTY ROAD 14
BIG LAKE, MINNESOTA

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SEH Project: BIGLK 181589
Checked By: EJM
Drawn By: KKP

Project Status: 30% SUBMITTAL
Issue Date: 01/30/2026

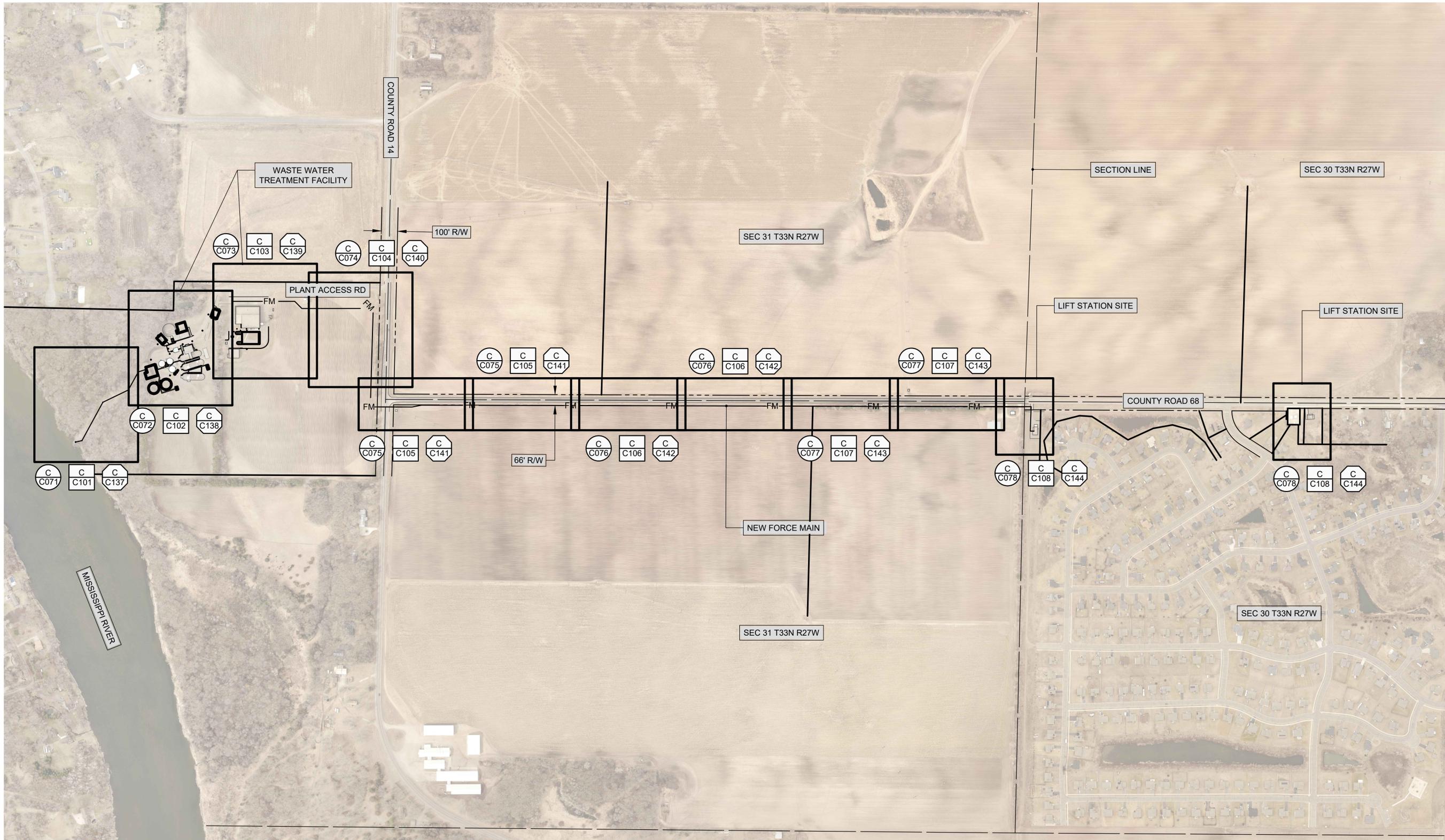
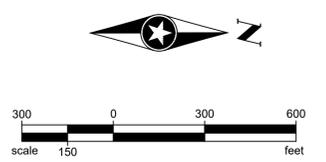
REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

SITE IDENTIFICATION PLAN

G003

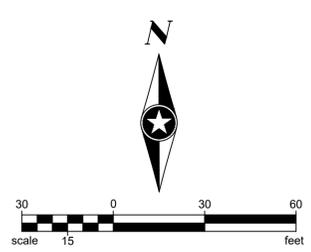
LEGEND

-  REMOVAL PLAN
-  OVERALL SITE PLAN AND SURVEY CONTROL
-  EROSION CONTROL AND TURF ESTABLISHMENT (NOT INCLUDED IN 30% PLANS)



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Project Owner
CITY OF BIG LAKE, MINNESOTA
16999 COUNTY ROAD 14
BIG LAKE, MN 55309

**CITY OF BIG LAKE, MINNESOTA
BIG LAKE WASTEWATER TREATMENT FACILITY
EXPANSION PROJECT**
16999 COUNTY ROAD 14
BIG LAKE, MINNESOTA

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SEH Project: BIGLK 181589
Checked By: EJM
Drawn By: KKP

Project Status: 30% SUBMITTAL
Issue Date: 01/30/2026

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

SITE IDENTIFICATION PLAN

G004



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CITY OF BIG LAKE, MINNESOTA
BIG LAKE WASTEWATER TREATMENT FACILITY
EXPANSION PROJECT

18999 COUNTY ROAD 14
BIG LAKE, MINNESOTA

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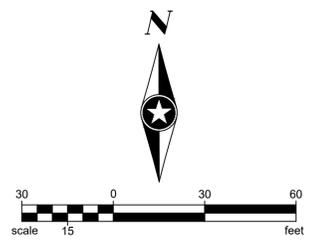
SEH Project: BIGLKT 181589
Checked By: EJM
Drawn By: KKP

Project Status: 30% SUBMITTAL
Issue Date: 01/30/2026

REVISION SCHEDULE
REV. # DESCRIPTION DATE

SITE IDENTIFICATION PLAN

G005



STRUCTUE IDENTIFICATION AND LOCATION

BUILDING / STRUCTURE DESIGNATION	NORTHING TIE	EASTING TIE	TIE DESCRIPTION
01 PRETREATMENT BUILDING	218085.8000	534702.1310	NE BUILDING CORNER
02 AERATION SPLITTER STRUCTURE	217984.4400	534742.9000	NW BUILDING CORNER
03 ADMINISTRATION BUILDING	217795.1500	534618.8850	NW BUILDING CORNER
04 AERATION BASIN 2	217726.8950	534757.9340	SW EDGE OF CONC.
05 AERATION BASIN 3	217874.2360	534816.8020	N EDGE OF CONC.
06 BLOWER BUILDING	217968.7800	217968.7800	NW BUILDING CORNER
07 FINAL CLARIFIER SPLITTER STRUCTURE	217705.7200	534876.7500	NW BUILDING CORNER
08 FINAL CLARIFIERS	217636.4800	534863.0900	CENTER OF N CLARIFIER
	217560.9900	534887.4800	CENTER OF S CLARIFIER
09 DISINFECTION AND PUMPING BUILDING	217516.2500	534831.4200	SE BUILDING CORNER
10 THINKING BUILDING	217641.5000	534592.9300	N BUILDING CORNER
11 IN-PLANT LIFT STAION	217718.5300	534769.9500	CENTER OF STRUCTURE
	217710.6200	534779.7200	
	217700.0200	534790.8500	
12 DAF FEED TANK	217671.6640	534738.7730	E EDGE CONC.
	217690.2810	534783.4110	E EDGE CONC.
13 UNDERFLOW TANK	217631.0830	534742.2460	NE EDGE CONC.
14 BIOSOLIDS CONTROL BUILDING	217780.5040	534571.0380	NE BUILDING CORNER
19 SLUDGE RECEIVING	217707.3640	534635.2690	NW BUILDING CORNER
20 NOT USED			
R1 SPLITTER STRUCTURE	217704.5500	534724.1900	NW STRUCTURE CORNER
R2 RAS/WAS PUMPING STATION	217652.8920	534755.5630	N CORNER OF CONC.
R4 SELECTOR TANK AND SPLITTER STRUCTURE	217884.3440	534638.5650	NW BUILDING CORNER
R5 EFFLUENT DIVERSON STRUCTURE	217641.4700	534705.1900	NW STRUCTURE CORNER
R6 CHEMICAL BUILDING	217638.7870	534589.9880	NE BUILDING CORNER

COORDINATES BASED ON WINONA COUNTY COORDINATE SYSTEM - NAD83 (1996 ADJ) - VERTICAL DATUM: NGVD 88
CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK, SETTING GRADE STAKES AS REQUIRED TO ENSURE CONFORMANCE WITH DRAWING, SHALL PROTECT AND PRESERVE THE ESTABLISHED CONTROL POINTS AND PROPERTY MOUNEMENTS, AND SHALL MAKE NO CHANGES OR RELOCATION WITH OUT THE PRIOR WRITTEN APPROVAL BY OWNER



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Project Owner
CITY OF BIG LAKE, MINNESOTA
16999 COUNTY ROAD 14
BIG LAKE, MN 55309

**CITY OF BIG LAKE, MINNESOTA
BIG LAKE WASTEWATER TREATMENT FACILITY
EXPANSION PROJECT**
18999 COUNTY ROAD 14
BIG LAKE, MINNESOTA

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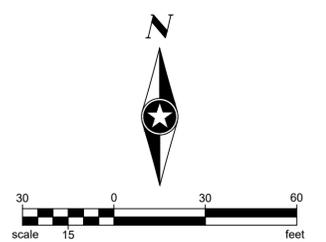
SEH Project: BIGLK 181589
Checked By: EJM
Drawn By: KKP

Project Status: 30% SUBMITTAL
Issue Date: 01/30/2026

REVISION SCHEDULE
REV. # DESCRIPTION DATE

SITE IDENTIFICATION PLAN

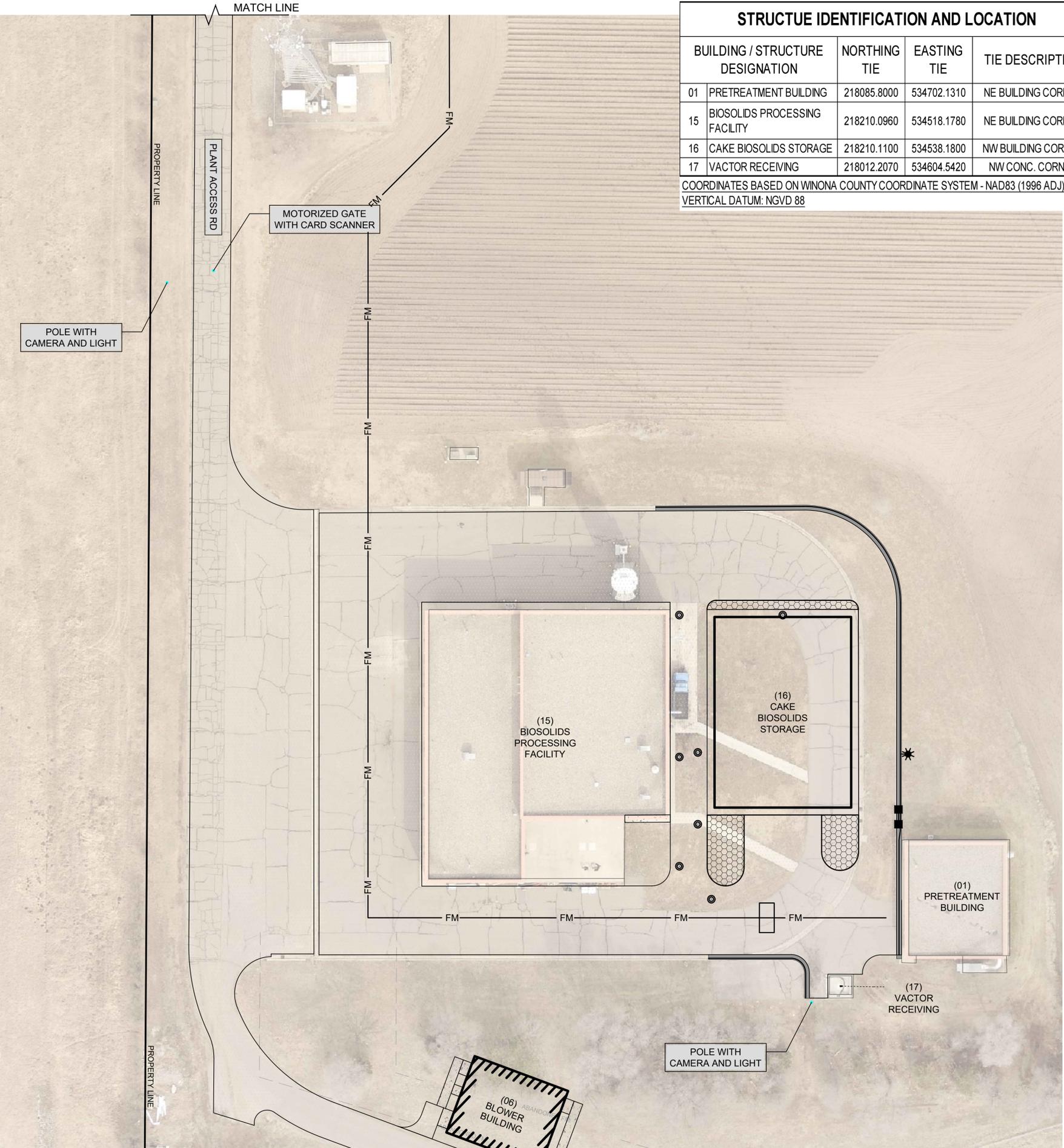
G006



STRUCTUE IDENTIFICATION AND LOCATION

BUILDING / STRUCTURE DESIGNATION	NORTHING TIE	EASTING TIE	TIE DESCRIPTION
01 PRETREATMENT BUILDING	218085.8000	534702.1310	NE BUILDING CORNER
15 BIOSOLIDS PROCESSING FACILITY	218210.0960	534518.1780	NE BUILDING CORNER
16 CAKE BIOSOLIDS STORAGE	218210.1100	534538.1800	NW BUILDING CORNER
17 VACTOR RECEIVING	218012.2070	534604.5420	NW CONC. CORNER

COORDINATES BASED ON WINONA COUNTY COORDINATE SYSTEM - NAD83 (1996 ADJ) - VERTICAL DATUM: NGVD 88



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Project Owner
CITY OF BIG LAKE, MINNESOTA
18999 COUNTY ROAD 14
BIG LAKE, MN 55309

CITY OF BIG LAKE, MINNESOTA
**BIG LAKE WASTEWATER TREATMENT FACILITY
EXPANSION PROJECT**
18999 COUNTY ROAD 14
BIG LAKE, MINNESOTA

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SEH Project: BIGLK 181589
Checked By: EJM
Drawn By: KKP

Project Status: 30% SUBMITTAL
Issue Date: 01/30/2026

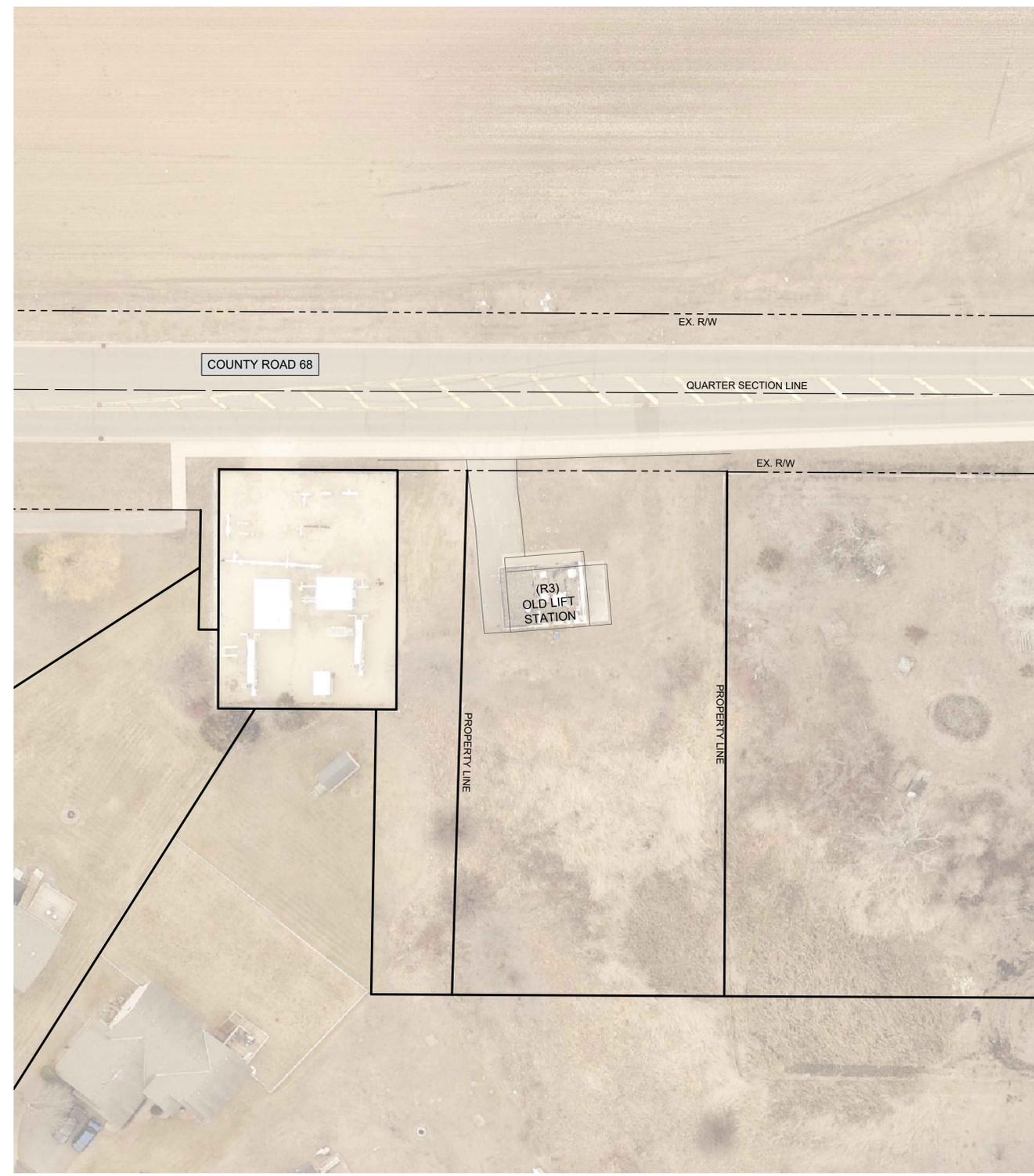
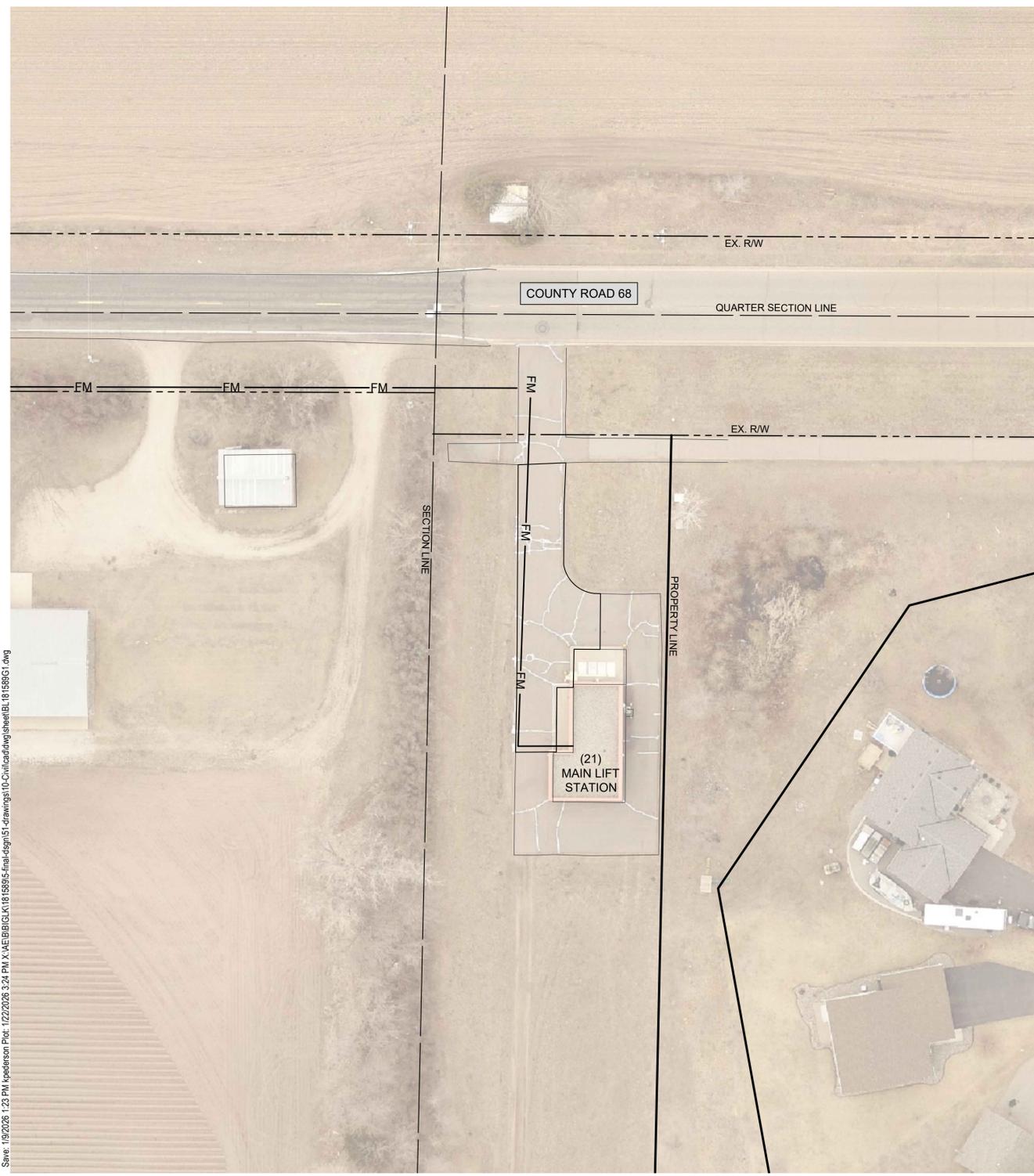
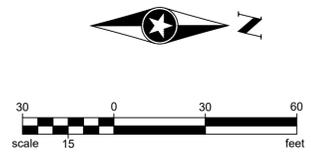
REVISION SCHEDULE
REV. # DESCRIPTION DATE

SITE IDENTIFICATION PLAN

G007

STRUCTUE IDENTIFICATION AND LOCATION			
BUILDING / STRUCTURE DESIGNATION	NORTHING TIE	EASTING TIE	TIE DESCRIPTION
21 MAIN LIFT STAION	222988.7590	535173.0920	NE BUILDING CORNER
R3 OLD LIFT STATION	224680.2120	535075.6740	NE BUILDING CORNER

COORDINATES BASED ON WINONA COUNTY COORDINATE SYSTEM - NAD83 (1996 ADJ) - VERTICAL DATUM: NGVD 88



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WORKSHOP ITEM

Big Lake City Council

Prepared By: <i>Dan Childs, Water/Wastewater Superintendent</i>	Meeting Date: <i>2/18/2026</i>	Item No. 4B
Item Description: <i>Discuss Benefits of Developing a Full Water Distribution Model</i>	Reviewed By: <i>Hanna Klimmek, City Administrator</i>	
	Reviewed By: <i>Deb Wegeleben, Finance Director</i>	

COUNCIL DIRECTION REQUESTED

Discuss benefits of developing a Full Water Distribution Model. Council is asked to provide direction on moving forward with developing a Water Model.

BACKGROUND/DISCUSSION

The City of Big Lake is interested in developing a Full Water Distribution Model (Water Model) to improve system understanding and long-term planning. A Water Model is a digital simulation of the water system that illustrates how water moves through the network and how pressures respond under different conditions. It can answer a wide range of questions, including evaluating fire flows, identifying low-pressure areas, testing future growth scenarios, sizing infrastructure, and supporting capital-planning efforts.

The workshop discussion will focus on what a Water Model is, and what it can be used for. Examples from other communities will be provided to help the city determine whether to move forward.

FINANCIAL IMPACT

Not known at this time.

STAFF RECOMMENDATION

Direct Staff to move forward with developing a Full Water Distribution Model.

ATTACHMENTS

None



WORKSHOP ITEM

Big Lake City Council

Prepared By: Layne Otteson P.E. City Engineer ENG26-010	Meeting Date: 2/18/2026	Item No. 4C
Item Description: Discuss Annual Lake Treatment Plan for Aquatic Invasive Species	Reviewed By: Hanna Klimmek, City Administrator Reviewed By: Deb Wegeleben, Finance Director	

COUNCIL DIRECTION REQUESTED

Staff requests Council provide direction regarding the AIS treatment plan for Big Lake and Lake Mitchell.

BACKGROUND/DISCUSSION

In 2025, the City treated the lakes for Curly leaf Pondweed (63 acres) and Eurasian Water Milfoil (2 acres). Previously the City had not treated for Curly leaf Pondweed since 2016 but significant proliferation was observed over recent summers. In 2024, the City’s fishing dock area was matted with Curly leaf Pondweed and not usable. The plant density was found to significantly impact the use of the lake for swimming, boating and fishing in many areas. Discussions with the area DNR AIS Coordinator led to developing a 2025 treatment plan to target significant acreage of Curly leaf Pondweed. After the lake was treated last year, a small area of the Lakeside Park beach swimming area was found to have a dense population of Curly leaf Pondweed and should be targeted for treatment.

The DNR has stated that it typically takes back to back treatment years to kill off the Curly leaf Pondweed due to residual seeds that germinate after treatment. The DNR requires a lake survey for permitting and the survey can be used to confirm germination in the spring. It is expected that the same areas of 2025 will be recommended for treatment in 2026 by the DNR. However, if the survey shows something different, then the treatment plan will be adjusted to effectively treat the lake upon DNR approval. The eradication of Curly leaf Pondweed in these areas will hopefully allow for native plants to self-establish post treatment. There are no plans to treat for Eurasian Water Milfoil this year unless budget and DNR allow for it.

FINANCIAL IMPACT

The cost for a lake survey (\$1,500) and AIS treatment (\$18,500) is estimated to be \$20,000 at this time. In the past, the City partnered with the Big Lake Community Lakes Association (BLCLA) to receive limited funding support. At this time, no additional funding has been committed but is requested for consideration. Any additional funding will help maintain the Lake Maintenance fund balance.

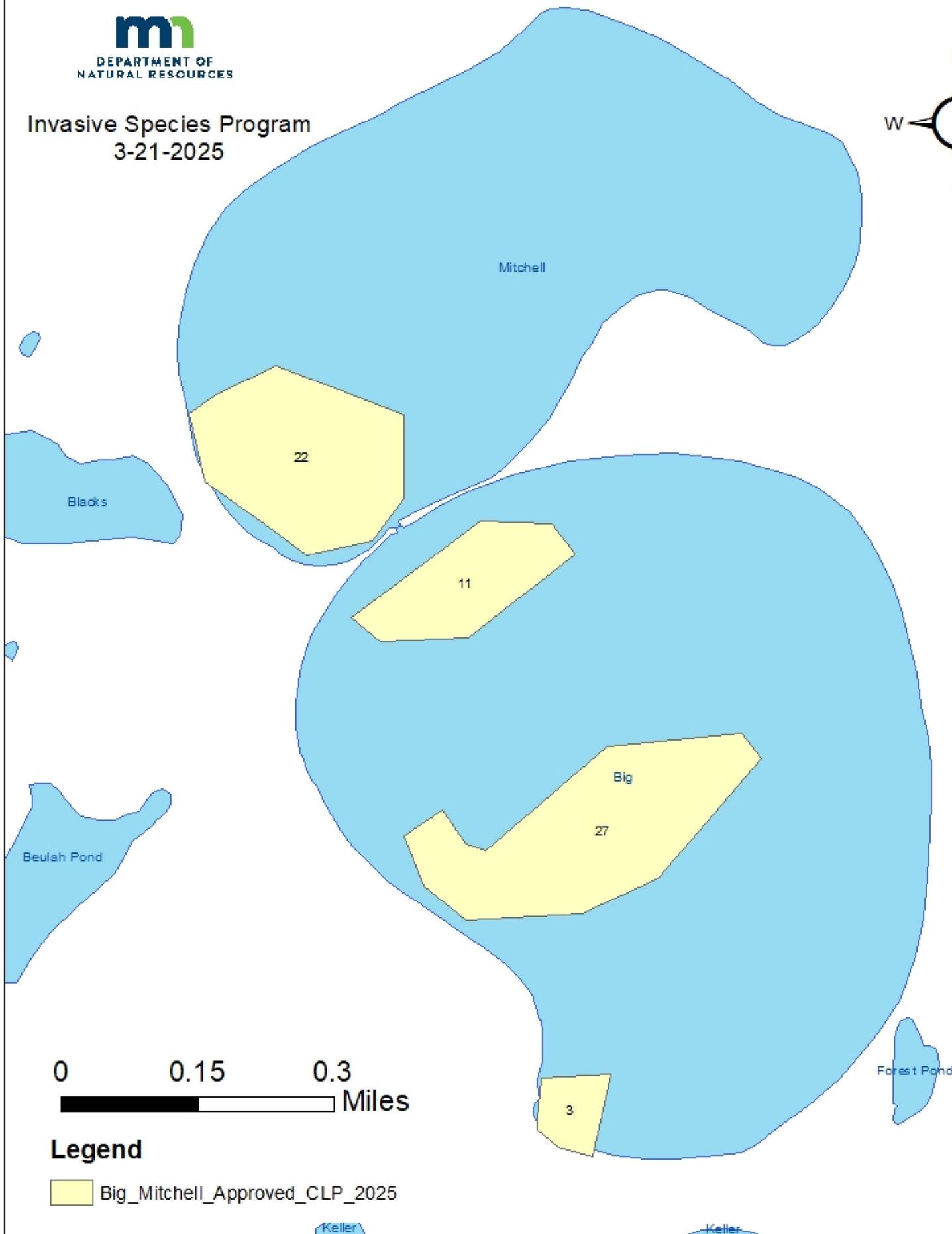
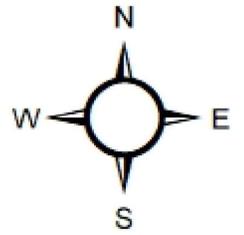
STAFF RECOMMENDATION

Staff recommends Council discuss and direct Staff to order a lake survey and develop a treatment plan. Staff will then bring back a plan with contractor quotes for approval.

ATTACHMENTS

- 2025 Treatment Map
- MnDNR Variance Letter (March 2025)
- Picture

**Invasive Species Program
3-21-2025**



**Curly-leaf Pondweed Treatment Plots 2025
Mitchell Lake 22 acres & Big Lake 41 acres**

**Division of Ecological and Water Resources
Central Region Headquarters
1200 Warner Road, Saint Paul MN 55106**

Letter of Variance for Big and Mitchell Lakes, Sherburne County

3/24/2025

City of Big Lake
Layne Otteson, City Engineer
160 North Lake Street
Big Lake, MN 55309

Dear Mr. Otteson,

A variance is required to perform the herbicide treatment for control of Eurasian watermilfoil and curly-leaf pondweed in Big Lake (DOW# 71008200) and Mitchell Lake (DOW# 71008100), Sherburne County. This letter constitutes a variance from Minnesota Rules 6280.1000. The goals of this variance are to reduce invasive aquatic plants and improve the native aquatic plant communities. The use of aquatic pesticides would be most effective in achieving the above mentioned goals. This variance allows for chemical treatment of invasive aquatic plants for three seasons (through June 2027) beyond the 15% littoral limit (Big Lake 17.46 acres and Mitchell Lake 13.56 acres). Use of herbicides beyond June 2027 will need to be evaluated by the DNR based off data collected.

With this variance, the DNR may issue an Invasive Aquatic Plant Management permit based on pre-treatment delineations. This variance does not preclude the requirements of applying for, and obtaining aquatic vegetation control permits (APM permits) and the necessary posting requirements as described in Minnesota Rule chapter 6280.

Please note the following variance conditions:

1. **This variance is good for 3 years and is nontransferable.** If such practices are failing to achieve their goals or are having a detrimental impact, this variance may be modified. Annual evaluation and review of management outcomes will occur between cooperators and MnDNR to determine effects on the invasive and native plant community.
2. **A pre-treatment delineation is required.** A delineation map must be submitted to the MnDNR prior to treatment. If the map shows insufficient data to support treatment, than a variance will not be granted for that year. The applicant will be responsible to contract out these surveys unless agreed upon by the MN DNR to collect the data.
3. **Plant monitoring, including a point-intercept survey.** If DNR is unable to complete the survey in subsequent years, the applicant will be responsible to contract out this survey by the year 2027.
4. Treatments must follow the protocols described in the document entitled "**Guidance for selective treatment of invasive aquatic plants in Minnesota**" (available at: http://www.dnr.state.mn.us/invasives/eco/aquatic_plants.html).

Approval of similar treatments in subsequent years will depend, at least in part, on the outcome of treatments completed under this variance. Please follow the conditions of this variance letter and your permit carefully. If you have any questions please contact Christine Jurek at 320-223-7847. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink that reads "Christine Jurek". The signature is written in a cursive style with a large, prominent initial "C".

Christine Jurek
Aquatic Invasive Species Specialist
EWR Central Region

Curly Leaf Pondweed - July 2024





WORKSHOP ITEM

Big Lake City Council

Prepared By: Layne Otteson P.E., City Engineer ENG26-012	Meeting Date: 2/18/2026	Item No. 4D
Item Description: Discuss Grading Minnesota Avenue Pond and Street Between 176 th Street and 177 th Street	Reviewed By: Hanna Klimmek, City Administrator	
	Reviewed By: Deb Wegeleben, Finance Director	

COUNCIL DIRECTION REQUESTED

Provide direction to Staff regarding solicitation of grading quotes.

BACKGROUND/DISCUSSION

An area contractor working in the Industrial Park inquired about excess granular material available in the City. Currently, the only area under consideration that requires export of soil would be the future street segment of Minnesota Avenue and a required pond. Staff has prepared a grading plan for the street and the pond in the event that an opportunity may present itself. Estimated cost to grade the street corridor and pond is approximately \$40,000 to \$50,000 with no benefitting (adjacent) property to assess for the work. This could be a significant savings opportunity.

City policy is to get quotes for small jobs such as street patching, pipe repairs, tree clearing, drainage repair/small excavation, etcetera. City Engineer would solicit quotes from contractors operating in the City and developers whom are thought to need fill. This would provide opportunity for others and provide transparency.

FINANCIAL IMPACT

Specific costs are not known but if quotes exceed \$2,500, Staff would bring the item back for consideration.

STAFF RECOMMENDATION

Direct Staff to solicit quotes and order work performed by lowest quote if under \$2,500.

ATTACHMENTS

Minnesota Avenue Aerial Map

