

DISTRICTS ALL

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda

 X Resolution or Ordinance (Blue) _____ Waiver of First Requested

Recommendations of Boards, Commissions & Committees (Green)
Other Business (Pink)

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: Scott Niehaus, Village Manager

DATE: May 11, 2023 (COW) (B of T) **Date:** May 18, 2023

TITLE: Water System Network Analysis
Professional Engineering Services

SUBMITTED BY: Brian Jack, Utilities Superintendent 

BACKGROUND/POLICY IMPLICATIONS:

Contract for the modeling and analysis of the existing water distribution system to identify system capabilities, deficiencies, storage requirements, fire flows, and future growth.

FISCAL IMPACT/FUNDING SOURCE:

Total Contract Amount: \$99,100
Project Number: WA 23 02
Project Number: RM PROG 32
CIP Budget Amount: \$70,000

Account: WA 23 02 Water Network Analysis
Water/Sewer Capital Reserve Fund: 520.790.715.75420 (\$70,000)

RM PROG 32 Water Main Maintenance and Improvements
Water/Sewer Capital Reserve Fund: 520.790.715.75420 (\$29,100)

Review (as necessary):

Village Attorney X _____ Date _____
Finance Director X _____ Date _____
Village Manager X _____ Date _____

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, before the Agenda Distribution.

MEMORANDUM



To: Scott Niehaus, Village Manager
From: Brian Jack, Utilities Superintendent
Through: Carl Goldsmith, Director of Public Works
Date: May 11, 2023
Subject: **Water System Network Analysis
Design Engineering - Short List**

Background

Part of maintaining the Village Water Pumping and Distribution System, a Water Network Analysis is performed every ten years to analyze water usage, capacity, storage, and flow characteristics. The analysis will identify and make recommendations to improve fire flows, undersized or failing watermains, storage deficiencies, and capabilities of meeting the needs for future growth and development. The last network analysis was completed in 2013 by Alfred Benesch & Company. The Village completed various capital improvement recommendations provided by the 2013 analysis such as installing the transmission main between the Civic Center Reservoir Pumping Station and the South Booster Station, rehabilitating the Roosevelt Road water mains, implementing a fire flow testing program, and continuing with the capital improvement programs of aging water main replacements. Projects remaining to be completed from this analysis are the water main improvements for Fire District 501, and pressure management practices.

In 2018, staff reached out to Alfred Benesch & Company to update the 2013 Network Analysis to incorporate the need for additional storage capacity due to the approximate 1,500 new housing units being developed on the south side of the Village, the new TIF district incorporating the previous Baptist Seminary Property, the elimination of back-up Well 11, and the Central Pump Station and Reservoir Rehabilitation Project. This update confirmed the need for additional storage capacity with the elimination of the Central Pump Station Reservoir and back-up Well 11, along with the water main improvements for Fire District 501 to increase fire flow in that area.

Since the 2018 Network Analysis Update, the Village has begun the design process with the DuPage Water Commission to construct a new elevated water tower along the Butterfield Road Corridor TIF district as well as included a capital improvement project for the rehabilitation/replacement of the water mains in Fire District 501.

As it has been 10 years since the last full system Network Analysis, the Village requested RFQs from the engineering short list for a full Water Network Analysis to be completed in 2023. The scope of this network analysis would be a full system flow analysis of the existing water system identifying areas of reduced fire flow, undersized/failing water

mains, emergency back-up well capacity and needs, storage requirements, and the ability to meet future needs. Items to specifically be investigated are Fire District 501 water main rehabilitation recommendations (lining or full replacement/upsizing), size of the proposed elevated storage tank, the elimination or full rehabilitation of all three current emergency back-up wells and incorporating completed and current water main projects into the model.

On Friday, March 31, 2023 RFQ proposals were received by the following firms. Staff reviewed the submissions and determined that Baxter & Woodman Consulting Engineers provided the most advantageous proposal to the Village.

Company	Submitted
Baxter & Woodman Consulting Engineers	Yes
Christopher Burke Engineering	Yes
Civiltech Engineering	Declined - out of scope
Engineering Resources Associates, Inc.	Declined - out of scope
Thomas Engineering Group LLC	Declined - out of scope
Alfred Benesch & Company	No Submission

Baxter & Woodman provided a full scope and fee schedule with some additional scope items for the Village to consider.

- The baseline model and analysis fee: \$ 64,200
- Additional Analysis fee: \$ 34,900
- Total fee for baseline and additions: \$ 99,100

- Approved 2023 Budget: \$ 70,000

The Utilities Group has evaluated the additional scope that Baxter & Woodman has provided and determined that the information gathered from the Extended Period Simulation will be valuable to determine potential water quality issues due to water ages, chlorine disinfection needs and levels throughout the distribution system including disinfection by-product levels as well as more detailed and accurate flow characteristics between pressure zones. This additional information will help in planning for future Capital Improvement Projects as well as provide information regarding water treatment needs due to increased sampling and potential new regulations for unregulated contaminants set by the Illinois Environmental Protection Agency.

Funding for the 2023 Water Network Analysis is allocated in the Water/Sewer Capital Reserve Fund WA 20 02 in the amount of \$70,000. The funds to include the additional scope can be absorbed from the Water/Sewer Capital Reserve Fund RM PROG 32 Water Main Maintenance and Improvement through reduction of other less immediate needs and lower contract costs from other projects.

Recommendations:

Please request the Board of Trustees to award a contract for the Water System Network Analysis including additional scope items as proposed to Baxter & Woodman Consulting Engineers of Crystal Lake, IL in an amount not to exceed \$99,100 at their May 18, 2023 meeting.

May 11, 2023

Mr. Dave Gorman, PE
Assistant Director of Public Works
Village of Lombard
255 E. Wilson Ave
Lombard, IL 60148-8222

Subject: Village of Lombard – Water System Network Analysis

Dear Mr. Gorman,

Baxter & Woodman, Inc. is pleased to submit this Proposal to assist the Village of Lombard in developing a new hydraulic water model, evaluating water distribution system performance, and developing long-term capital improvement recommendations. Below is the expanded scope of services from our Proposal, which we consider appropriate and necessary for the completion of the project.

Water Network Analysis Scope of Services

1. PROJECT MANAGEMENT

- A. Plan, schedule, and control activities to complete the Project. These activities include, but are not limited to, budgeting, scheduling, and monitoring the scope of services.
- B. Submit a regular status report via email describing tasks completed and future goals.

2. MEETINGS

- A. *Kickoff Workshop Meeting* – A Project Workshop meeting with Owner’s staff and the Project team will be held for the Water Network Analysis. The purposes of the meeting are to establish clear lines of communication, introduce the Village staff to the team members, and establish the Owner’s detailed needs, objectives, and goals for the Project. Provide a brief presentation on the computer modeling program, including its capabilities, so the Owner can become familiar with the potential use of this information for other purposes in the future. The meeting will also be utilized to obtain information, plans, atlases, and other data to be supplied by the Owner, and set schedules and guidelines for future design meetings.
- B. *Status Meetings* – Conduct up to four meetings with Owner’s staff at times during the Project to clarify system layout and operations questions, model results, and distribution system recommendations. Status meetings are typically held to review the calibrated model, review recommendations, and review the draft report.

3. EXISTING SYSTEM REVIEW

- A. Review the following information to be provided by the Owner:
 - 1. Existing water system GIS (geodatabase).
 - 2. Existing water distribution system maps and subdivision plans and as-builts, including any recent changes and improvements, with pipe diameters, ages, and typical materials.
 - 3. Engineering reports previously completed on the water system.
 - 4. Water pumping and consumption records.
 - 5. Water consumption records from individual service accounts, in Excel or another acceptable electronic format.
 - 6. Descriptions of existing storage facilities.
 - 7. Description of standard operating procedures for the water system, including setpoints.
 - 8. List of known problem areas (low pressure, high pressure, poor water quality, low fire flow, etc.).
 - 9. Existing capital improvement plan.
- B. Confirm pressure zone boundary with utility map drawings. Confirm location with Village staff. Recommend field verification by Village staff, if required.
- C. Develop 24-Hour Demand Curve for the Low- and High-Pressure Zones. This task should include utilizing the typical day information to evaluate the Owner's usage over a 24-hour period. This will determine the peak hour multiplier for the system. This multiplier will be utilized to test the system under its most stressed condition to evaluate pressures, head-losses and flows.

4. GIS DATA COORDINATION

- A. GIS data adjustments are not included in the scope of this work.
- B. Review data for connectivity and cohesiveness as necessary for integration with WaterGEMS® software. Provide recommendations and guidelines to the Village for missing data necessary for model construction, including topography revisions and attributes (pipe age, material, and diameter). The Village will make the revisions necessary to conform to conventions used within the modeling software.
- C. Unique IDs will be maintained if Owner's data has Unique IDs established for all segments and structures. If Unique IDs are not already established, Unique IDs will be created to develop an identification system. This will establish a link with the WaterGEMS® model, allowing model results to be incorporated within the GIS.
- D. At the completion of the modeling project, WaterGEMS® network model data will be exported back into the existing GIS. This one-to-one relationship will allow any alterations that have been made to the water network within the modeling software to be maintained and incorporated into the existing geodatabase. This strategy will allow

WaterGEMS® model output to be incorporated within the GIS data for Owner use and permits future updates to be migrated into and out of the geodatabase utilized by WaterGEMS®.

- E. Provide a digital copy of the final ArcGIS dataset in a format as specified by Village staff.

5. MODEL PREPARATION

- A. *Prepare Model* - Prepare a water model in WaterGEMS® for the Owner’s water system using existing atlas and GIS information. Work directly with Owner’s staff to concur on design information, including control elevations, system pressures, and system constraints. Confirm with Owner’s staff the resulting system in the modeling software accurately represents the actual distribution system.
- B. *Field Hydrant Testing* – Perform “distribution stress tests” by flowing fire hydrants in specific areas to determine the existing pipe roughness (“C” Coefficient) and assist in the model calibration. The fire hydrant flow tests involve measuring flows from selected fire hydrants throughout the water system. An estimated 15 fire hydrants tests will be conducted with the Owner’s assistance.
- C. *Model Calibration* - Calibrate the model by using fire hydrant test and SCADA data for all facilities during the testing time period and adjust the model until the field and model data match within certain limits. Typically, the accuracy will be 1 psi (+/-) during average static conditions and 5 psi (+/-) during high flow testing.
 - 1. In the event attempts to calibrate the model reveal unexpected and unknown field conditions, it may be necessary to make a field investigation into why the model will not calibrate, e.g., locate closed valves in the system, and conduct additional flow tests. This additional work will be performed on a “Cost-Plus” basis in addition to the original Engineering Fee.

6. DISTRIBUTION SYSTEM ANALYSIS– The following is a list of recommended scenarios that will provide the information most critical to the current needs. Scenarios will be evaluated under varying demand conditions, including Average Day Demand, Maximum Day Demand, and Peak Hour Demand.

- A. *Pressure Characteristics throughout the System* – Pressures will be determined at each node in the model. Low pressures during peak demand may be caused by excessive head loss in the supply mains or high ground elevation. A determination of unacceptable variations in service pressure will be completed.
- B. *Areas of excessive head loss or high velocities* – Pipes with excessive head loss or high velocities may require replacement of pipes or paralleling with larger diameter pipes. Excessive head loss under maximum day conditions may indicate that additional looping or water main upsizing is required.

- C. *Areas with inadequate fire flows* – Utilizing the fire flow analysis portion of the software, fire hydrants will be simulated and the available fire flow capacity of each will be estimated. Test how the system reacts to simulations of fire flows at all fire hydrants in the system at maximum day demand. The results produced by the model will provide the Owner with the predicted fire flows and the location and pressure of the lowest pressure nodes in the model for each hydrant. These results will be compared against ISO requirements. Particular attention will be paid to areas of critical need, such as schools, commercial and business zones, and dense residential areas.
- D. *Evaluate Water Storage Capacity* – Engineering and model data will be used to evaluate the total volume of storage currently available in the distribution system and compare this to current and future maximum day and peak hourly water demands. The Owner is in the developing phase of an additional 1.5 MG elevated storage tank in the high-pressure zone at the old Baptist Seminary property located next to the Westin Hotel in Lombard. A review of the IDNR Lake Michigan proposed water allocation adjustments should also be completed to ensure that future allocations meet projected demands for the Owner. An evaluation of the DWC storage requirements should be completed to ensure the Owner is within required storage capacity. Provide recommendations for future water system storage, if necessary. Recommendations will include a review of water storage tank style, such as ground storage versus elevated storage. Review the impact of storage on water turnover in the distribution system.
- E. *Review ISO Report* - Review the most recent ISO report for the Village of Lombard (2018 or newer). Identify and recommend improvements to increase water system rating.
- F. *Evaluate Planned Village Projects Including:*
1. *Flow Capacity in Lombard Fire District 501* - Evaluate and make recommendations to increase flow capacity in Lombard Fire District 501 (bordered with Parkside Ave. to the north, Madison St. to the south, Main St. to the West, and Grace St. to the east). Considerations for a Capital Improvement Project will be included below but not limited to:
 - a. Replacement of the four-inch (4") with eight-inch (8") water mains
 - b. Replacement of the four-inch (4") with six-inch (6") water mains
 - c. Cleaning and lining the existing four-inch (4") water mains via cured in place or spray lining
 - d. Relocating water services and fire hydrants to the transmission mains in this area.
 - e. Installing larger trunk water mains on east west streets to provide more flow capacity to area.
 2. *Water main rehabilitation project for N. Grace St. from St. Charles Rd. to North Ave. slated for 2023 construction.*

3. The reinstatement of the water main crossings at the railroad tracks along St. Charles Rd. to include Grace St., and Elizabeth St.
 4. Wheeling water through the low-pressure zone to service the IL American Water Lombard Heights area.
 5. The March 2018 Water Model Update to incorporate the recommendations into the new full water model.
 6. The need for the three current emergency back-up wells with the following scenarios based upon current status of the wells. Scenarios for evaluation include:
 - a. Abandon all three wells (Well 7, Well 8, and Well 10)
 - b. Increase capacity of Wells 8 and 10
 - c. Rehabilitate Well 7
 - d. Relocate Well 7
7. **ADDITIONAL ANALYSIS**
- A. *Extended Period Simulation* - Develop an “extended period” simulation (EPS) model that will be used to identify problem areas in the existing system during a variety of flow conditions. Enter hourly demands, pump curves, estimated starting water ages within the tanks and reservoirs, and tower control levels into the model to simulate actual system operation. The EPS model will be used to determine the adequacy of the elevated tank, water mains, pumps, valves, operations between pressure zones, and connection points over a 96-hour period.
8. **RECOMMENDATIONS AND REPORT** - The results of the existing system analysis, evaluation of alternatives, opinions of probable costs estimates, recommendations, and prioritized list of selected alternatives will be prepared.
- A. **MODEL EXHIBITS** – Prepare water system exhibits showing pressure and available fire flows for average day and maximum day water demands; areas with inadequate fire flows; available fire flows with recommended improvements; and water age. Confirm with Owner’s staff the exhibits accurately represent water system.
 - B. **DRAFT REPORT** – Prepare a draft report summarizing the results of the analysis, evaluation of alternatives, opinions of probable costs estimates, recommendations, and prioritized list of selected alternatives and submit to Village staff for review. Meet with the Owner to solicit comments from Village staff regarding the draft report and incorporate their feedback into the final report. The draft report will include exhibits showing the results of the simulated fire flows and pressures across the system and recommendations for water system capital improvements planning. Opinions of probable construction costs estimates will be included for the recommended improvements.

- C. FINAL REPORT – The final report will be prepared and submitted to the Owner. Organize computer files and worksheets for submittal to the Owner in an acceptable format. Worksheets shall include demand calculations. Maintain unique IDs and one-to-one relationship with GIS so that model results can be incorporated into Village’s GIS. Provide a digital copy of the revised ArcGIS dataset in a format specified by Village staff.

Schedule

The proposed work will be completed between June 2023 and December 2023.

Engineering Fee

The Owner shall pay the Engineer for the services performed or furnished based upon the Engineer’s standard hourly billing rates for actual work time performed plus reimbursement for out-of-pocket expenses, including travel.

Baseline Model and Analysis (Tasks 1 – 6) *Initial to accept*
Base Model and Analysis Fee: \$64,200 _____

Additional Analysis and Report (Tasks 7 – 8) *Initial to accept*
Additional Analysis and Report Fee: \$34,900 _____

Thank you for the opportunity to submit our Proposal for this Project. The attached Standard Terms and Conditions apply to this Proposal. If you find this Proposal acceptable, **please sign and return one copy for our files**. Please contact Lauren Schuld at 815-444-3306 or lschuld@baxterwoodman.com if you should have any questions or need additional information.

Sincerely,

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS

VILLAGE OF LOMBARD, ILLINOIS



John V. Ambrose, PE
Executive President
Attachment

AUTHORIZED BY: _____

TITLE: _____

DATE: _____

STANDARD TERMS AND CONDITIONS

PLEASE READ THESE STANDARD TERMS AND CONDITIONS ("TERMS") CAREFULLY BEFORE EXECUTING THE LETTER PROPOSAL PRESENTED BY BAXTER & WOODMAN, INC. ("BW"). BY EXECUTING THE LETTER PROPOSAL, OWNER AGREES TO BE BOUND BY THESE TERMS, THE PROVISIONS OF THE LETTER PROPOSAL, AND THE PROVISIONS OF ANY DOCUMENT REFERRING TO THESE TERMS OR THE LETTER PROPOSAL, ALL OF WHICH SHALL COLLECTIVELY CONSTITUTE THE "AGREEMENT".

Owner's Responsibility – Provide BW with all criteria and full information for the "Project", which is generally otherwise identified in the Letter Proposal. BW will rely, without liability, on the accuracy and completeness of all information provided by the Owner (as defined in the Letter Proposal) including its consultants, contractors, specialty contractors, subcontractors, manufacturers, suppliers and publishers of technical standards ("Owner Affiliates") without independently verifying that information. The Owner represents and warrants that all known hazardous materials on or beneath the site have been identified to BW. BW and their consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, unidentified or undisclosed hazardous materials unless this service is set forth in the Letter Proposal.

Schedule for Rendering Services - The agreed upon services shall be completed within a reasonable amount of time. If BW is hindered, delayed or prevented from performing the services as a result of any act or neglect of the Owner, any Owner Affiliate, or force majeure event, BW's work shall be extended and the rates and amounts of BW's compensation shall be equitably adjusted in a written instrument executed by all Parties.

Invoices and Payments - The fees to perform the proposed scope of services constitutes BW's estimate to perform the agreed upon scope of services. Circumstances may dictate a change in scope, and if this occurs, an equitable adjustment in compensation and time shall be agreed upon by all Parties by written agreement. No service for which added compensation will be charged will be provided without first obtaining written authorization from the Owner. BW invoices shall be due and owing by Owner in accordance with the terms and provisions of the State of Illinois Local Government Prompt Payment Act (50 ILCS 505/1 et seq.).

Opinion of Probable Construction Costs - BW's opinion of probable construction costs represents its reasonable judgment as a professional engineer. Owner acknowledges that BW has no control over construction costs or contractor's methods of determining prices, or over competitive bidding, or market conditions. BW cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from BW's opinion of probable construction costs.

Standards of Performance – (1) The standard of care for all services performed or furnished by BW will be the same care and skill ordinarily used by professionals practicing under similar circumstances, at the same time and in the same locality on similar projects. BW makes no warranties, express or implied, in connection with its services; (2) BW shall be responsible for the technical accuracy of its services and documents; (3) BW shall use reasonable care to comply with applicable laws, regulations, and Owner-mandated standards; (4) BW may employ such sub-consultants as BW deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objection by Owner; (5) BW shall not supervise, direct, control, or have authority over any contractors' work, nor have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the site, nor for any failure of any contractor to comply with laws and regulations applicable to such contractor's furnishing and performing of its work; (6) BW neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform the work in accordance with the contract documents; (7) BW is not acting as a municipal advisor as defined by the Dodd-Frank Act. BW shall not provide advice or have any responsibility for municipal financial products or securities; (8) BW is not responsible for the acts or omissions of any contractor, subcontractor, or supplier, or any of their agents or employees or any other person at the site or otherwise furnishing or performing any work; (9) Shop drawing and submittal review by BW shall apply only to the items in the submissions and only for the purpose of assessing if, upon installation or incorporation in the Project work, they are generally consistent with the contract documents. Owner agrees that the contractor is solely responsible for the submissions (regardless of the format in which provided, i.e. hard copy or electronic transmission) and for compliance with the construction documents. Owner further agrees that BW's review and action in relation to these submissions shall not constitute the provision of means, methods, techniques, sequencing or procedures of construction or extend to safety programs or precautions. BW's consideration of a component does not constitute acceptance of the assembled item; (10) BW's site observation during construction shall be at the times agreed upon in the Project scope. Through standard, reasonable means, BW will become generally familiar with observable completed work. If BW observes completed work that is inconsistent with the construction documents, information shall be communicated to the contractor and Owner for them to address.

Insurance - BW will maintain insurance coverage with the following limits and Certificates of Insurance will be provided to the Owner upon written request:

Worker's Compensation:	Statutory Limits	Excess Umbrella Liability:	\$10 million per claim and aggregate
General Liability:	\$1 million per claim	Professional Liability:	\$5 million per claim
	\$2 million aggregate		\$5 million aggregate
Automobile Liability:	\$1 million combined single limit		

In no event will BW's collective aggregate liability under or in connection with this Agreement or its subject matter, based on any legal or equitable theory of liability, including breach of contract, tort (including negligence), strict liability and otherwise, exceed the contract sum to be paid to BW's under this Agreement. Any claim against BW arising out of this Agreement may be asserted by the Owner, but only against the entity and not against BW's directors, officers, shareholders or employees, none of whom shall bear any liability and may not be subject to any claim.

Indemnification and Mutual Waiver – (1) To the fullest extent permitted by law, BW shall indemnify and hold harmless the Owner and its officers and employees from claims, costs, losses, and damages (“Losses”) arising out of or relating to the Project, provided that such Losses are attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom, but only to the extent caused by any grossly negligent act or omission of BW; (2) To the fullest extent permitted by law, Owner shall indemnify and hold harmless BW and its officers, directors, employees, agents and consultants from and against any and all Losses (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project provided that any such Losses are attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom, but only to the extent arising out of or occurring in connection with the Owner’s, or Owner’s officers, directors, employees, consultants, agents, or others retained by or under contract to the Owner, negligent act or omission, willful misconduct, or breach of this Agreement; (3) To the fullest extent permitted by law, Owner and BW waive against each other, and the other’s employees, officers, directors, insurers, and consultants, any and all claims for or entitlement to special, incidental, indirect, enhanced, punitive, or consequential damages, in each case regardless of whether such party was advised of the possibility of such losses or damages or such losses or damages were otherwise foreseeable, and notwithstanding the failure of any agreed or other remedy of its essential purpose; (4) In the event Losses or expenses are caused by the joint or concurrent fault of the BW and Owner, they shall be borne by each party in proportion to its respective fault, as determined by a mediator or court of competent jurisdiction; (5) The Owner acknowledges that BW is a business corporation and not a professional service corporation, and further acknowledges that the corporate entity, as the party to this contract, expressly avoids contracting for individual responsibility of its officers, directors, or employees. The Owner and BW agree that any claim made by either party arising out of any act of the other party, or any officer, director, or employee of the other party in the execution or performance of the Agreement, shall be made solely against the other party and not individually or jointly against such officer, director, or employees.

Termination - Either party may terminate this Agreement upon ten (10) business days’ written notice to the other party in the event of failure by the other party to comply with the terms of the Agreement through no fault of the terminating party. A condition precedent to termination shall be conformance with the Dispute Resolution terms below. If this Agreement is terminated, Owner shall receive reproducible copies of drawings, developed applications and other completed documents upon written request. Owner shall be liable, and shall promptly pay BW, for all services and reimbursable expenses rendered through the effective date of suspension/termination of services.

Use of Documents - All BW documents (data, calculations, reports, Drawings, Specifications, Record Drawings and other deliverables, whether in printed form or electronic media format, provided by BW to Owner pursuant to this Agreement) are instruments of service and BW retains ownership and property interest therein (including copyright and right of reuse). Owner shall not rely on such documents unless in printed form, signed or sealed by BW or its consultant. Electronic format of BW’s design documents may differ from the printed version and BW bears no liability for errors, omissions or discrepancies. Reuse of BW’s design documents is prohibited and Owner shall defend and indemnify BW from all claims, damages, losses and expenses, including attorney’s fees, consultant/expert fees, and costs arising out of or resulting from said reuse. Project documents will be kept for time periods set forth in BW’s document retention policy after Project closeout.

Successors, Assigns, and Beneficiaries – Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or BW to any third party, including any lender, contractor, subcontractor, supplier, manufacturer, other individual, entity or public body, or to any surety for or employee of any of them. All duties and responsibilities undertaken pursuant to this Agreement are for the sole and exclusive benefit of the Owner and BW and not for the benefit (intended, unintended, direct or indirect) of any other entity or person.

Dispute Resolution - All disputes between the Parties shall first be negotiated between executives who have authority to settle the dispute for a period of thirty (30) days. If unresolved, disputes shall be then submitted to mediation as a condition precedent to litigation. The mediation session shall be held within forty-five (45) days of the retention of the mediator, and last for at least one (1) full mediation day, before any party has the option to withdraw from the process. If mediation is unsuccessful in resolving a Dispute, then the parties may seek to have the Dispute resolved by a court of competent jurisdiction.

Miscellaneous Provisions – (1) This Agreement is to be governed by the law of the state or jurisdiction in which the project is located; (2) all notices must be in writing and shall be deemed effectively served upon the other party when sent by certified mail, return receipt requested; (3) all express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion and/or termination for any reason; (4) any provision or part of the Agreement held to be void or unenforceable under any laws or regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Owner and BW, which agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that expresses the intention of the stricken provision; (5) a party’s non-enforcement of any provision shall not constitute a waiver of the provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement; (6) to the fullest extent permitted by law, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of substantial completion, which is the point where the Project can be utilized for the purposes for which it was intended; (7) this Agreement, together with any other documents incorporated herein by reference, constitutes the sole and entire agreement of the parties with respect to the subject matter of this Agreement and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter; (8) no amendment to or modification of this Agreement is effective unless it is in writing and signed by each party.

RESOLUTION
R _____ 23

**A RESOLUTION AUTHORIZING SIGNATURE OF
PRESIDENT AND CLERK ON AN AGREEMENT**

WHEREAS, the Corporate Authorities of the Village of Lombard have received a Contract between the Village of Lombard, and Baxter & Woodman Consulting Engineers, regarding engineering services related to the Water System Network Analysis project as attached hereto and marked Exhibit "A", and

WHEREAS, the Corporate Authorities deem it to be in the best interest of the Village of Lombard to approve such Contract.

NOW, THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LOMBARD, DU PAGE COUNTY, ILLINOIS as follows:

SECTION 1: That the Village President be and hereby is authorized to sign on behalf of the Village of Lombard said Contract as attached hereto.

SECTION 2: That the Village Clerk be and hereby is authorized to attest said Contract as attached hereto.

Adopted this 18th day of May 2023.

Ayes: _____

Nays: _____

Absent: _____

Approved this 18th day of May 2023.

Keith Giagnorio
Village President

ATTEST:

Elizabeth Brezinski
Village Clerk

Exhibit "A"

Legistar: 230159



VILLAGE OF LOMBARD CONTRACT

WATER SYSTEM NETWORK ANALYSIS CONTRACT DOCUMENT NUMBER WA 23 02

This Contract is made this 18th day of May 2023, between and shall be binding upon the VILLAGE of Lombard, an Illinois Municipal Corporation hereinafter referred to as the "VILLAGE" and Baxter & Woodman Consulting Engineers, hereinafter referred to as the "ENGINEER" and its successors.

Witnessed, that in consideration of the mutual promises of the parties delineated in the Contract Documents, the ENGINEER agrees to perform the services and the VILLAGE agrees to pay for the following services as outlined in the Contract documents:

Engineering Services for the Water System Network Analysis

1. This Contract shall embrace and include all applicable contract documents listed below as if attached hereto or repeated herein:
 - a. Request for Qualifications and Request for Proposal (October 9, 2021) consisting of the following:
 - i) Cover Sheet
 - ii) Table of Contents
 - iii) Solicitation Letter
 - iv) General Provisions
 - v) Special Provisions/Request for Qualifications
 - vi) Request for Proposal
 - vii) Instructions for the Consultant Evaluation Form
 - viii) Instructions for the Statement of Qualifications Forms
 - ix) Appendix A - Sample Contract and Engineer's Certification Form
 - x) Appendix B - Local Government Prompt Payment Act
 - xi) Appendix C - Statement of Qualifications Form and Proposal Form
 - xii) Appendix D - CIP Shortlist Projects
 - xiii) Appendix E - Charles Lane Basin Utility Map
 - b. Addendum #1, Dated November 11, 2021 (RFQ & Charles Lane Basin project)
 - c. Request for Proposal Dated March 31, 2023
 - d. ENGINEER'S Letter, Scope Work Effort, and Fee dated May 11, 2023
 - e. Required Certificates and Signatures and Certificate of Insurance
2. The VILLAGE agrees to pay, and the ENGINEER agrees to accept as full payment for the services, which are the subject matter of this contract per the General Provisions.
3. This Contract represents the entire agreement between the parties and may not be modified without the written approval of both parties.

IN WITNESS WHEREOF, the Village of Lombard, Illinois by Keith Giagnorio, Village President, and the ENGINEER have hereunto set their hands this 18th day of May 2023.

If an individual or partnership, all individual names of each partner shall be signed, or if a corporation, an officer duly authorized shall sign here:

Baxter & Woodman Consulting Engineers

Accepted this _____ day of _____, 2023.

Individual or Partnership _____ Corporation _____

By Position/Title

By Position/Title

THE VILLAGE OF LOMBARD, ILLINOIS

Accepted this 18th day of May 2023.

Keith Giagnorio, Village President

Attest: _____
Elizabeth Brezinski, Village Clerk

**VILLAGE OF LOMBARD
ENGINEER'S CERTIFICATION**

_____, having been first duly sworn depose and states as follows:
(Officer or Owner of Company)

_____, having submitted a proposal for the
(Name of Company)

North Grace Street Utility Improvements, Contract Document Number WA 22 02 to the Village of Lombard, hereby certifies when applicable under Federal, State, County or municipal code, that said ENGINEER:

- 1. has a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105(A) (4).
- 2. is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, or if it is:
 - a. it is contesting its liability for the tax or the amount of tax per procedures established by the approved Revenue Act; or
 - b. it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.
- 3. is in full compliance with the Federal Highway Administration Rules on Controlled Substances and Alcohol Use and Testing, 49 CFR Parts 40 and 382 and that

(Name of employee/driver or "all employee drivers")
is/are currently participating in a drug and alcohol testing program pursuant to the aforementioned rules.

By: _____
Officer or Owner of the Company named above

Subscribed and sworn to
before me this _____
day of _____, 2023.

Notary Public

Village of Lombard, Illinois
Water Network Analysis

Fee 5/11/23

Task No.	DELIVERABLE TITLE	SUB-DELIVERABLE TITLE	Advisor Carolyn \$ 240	PM Lauren \$ 200	Modeling Megan \$ 165	Concentric \$ 200	GIS \$ 140	Sect. \$ 90	MILES \$ 0.655	TOTAL HOURS	SUBDEL COST	DELIV COST
1	Project Management		2	8						10	\$ 2,080	\$ 2,080
2	Meetings	Kickoff Meeting Status Meetings	6 10	6 20	6 20	6			234 936	24 50	\$ 4,983 \$ 10,313	\$ 15,296
3	Existing System Review	Existing Conditions Review Water Demands		4	8 4	2				14 20	\$ 2,520 \$ 2,900	\$ 5,420
4	GIS Data Adjustments	Pipe Configuration Attribution		2	6 4		20			28 4	\$ 4,190 \$ 660	\$ 4,850
5	Model Preparation	Model Build Fire Hydrant Testing Calibration		16 2 8	40 20 40	2				56 24 48	\$ 9,800 \$ 4,100 \$ 8,200	\$ 22,100
6	Distribution System Analysis	Steady State Village Projects Storage Evaluation Recommendations		2 4 4 16	8 16 8 24					10 20 12 40	\$ 1,720 \$ 3,440 \$ 2,120 \$ 7,160	\$ 14,440
Total for Tasks 1-6 (Baseline Model and Analysis)												\$ 64,200

7	Additional Analysis	Extended Period Simulation		12	60					72	\$ 12,300	\$ 12,300
8	Recommendations and Report	Cost Estimates Exhibits Draft report Final report	4 4	4 2 16 12	12 6 24 24		16			16 24 48 44	\$ 2,780 \$ 3,630 \$ 8,480 \$ 7,680	\$ 22,570
Total for Tasks 7-8 (Additional Analysis and Report)												\$ 34,900
Total Not-to-Exceed Fee												\$ 99,100

Task Hours	26	138	330	10	52	8	-	564
Task Costs	\$ 6,240	\$ 27,600	\$ 54,450	\$ 2,000	\$ 7,280	\$ 720	\$ 766	\$ 99,056