



PROPOSAL

Geotechnical Instrumentation and Monitoring Services
Ossining Public Library
MSE Wall Repairs and Parking Lot Reconfiguration Project



Submitted To:

OSSINING PUBLIC LIBRARY
53 CROTON AVENUE
OSSINING, NY 10562

Submitted By:

BRYAN FIGURSKI
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Ms. Karen LaRocca-Fels, Library Director
Ossining Public Library
53 Croton Avenue
Ossining, NY 10562

Attention: Mr. David Chen
Estimator / Project Manager
Calgi Construction Company, Inc.

May 7, 2026

**RE: PN 26-0496
PROPOSAL FOR GEOTECHNICAL INSTRUMENTATION & MONITORING SERVICES
OSSINING PUBLIC LIBRARY – MSE WALL REPAIRS / PARKING LOT RECONFIGURATION
53 CROTON AVENUE, OSSINING, NY**

Tectonic Engineering is pleased to submit our proposal to provide Geotechnical Instrumentation and Monitoring Services for the Ossining Public Library MSE Wall Repairs and Parking Lot Reconfiguration Project located at 53 Croton Avenue, Ossining, New York.

We understand that the project includes repairs to the existing lower mechanically stabilized earth (MSE) retaining wall, along with parking lot and stormwater infrastructure improvements, and that instrumentation and monitoring services are essential to evaluate wall performance, ground movement, and overall site stability during construction. Tectonic Engineering has extensive experience supporting similar infrastructure rehabilitation projects, providing reliable instrumentation programs that protect both public assets and construction operations.

Our team offers comprehensive capabilities to meet and exceed the project requirements, including:

- Installation, monitoring, and maintenance of geotechnical instrumentation systems.
- Survey-based deformation monitoring to track movement and settlement.
- Vibration monitoring to protect adjacent structures and utilities.
- Data collection, analysis, and interpretation using advanced monitoring technologies.
- Preparation of clear, timely reports and real-time alert notifications; and
- Ongoing coordination with the Owner, Engineer, and Contractor throughout the project.

Tectonic will implement a robust monitoring program aligned with project specifications, utilizing proven methodologies, calibrated instrumentation, and proactive threshold-based alert systems. Our approach emphasizes accuracy, responsiveness, and communication, ensuring that potential issues are identified early and addressed efficiently.

We confirm that Tectonic Engineering has reviewed the available Contract Documents and understands the requirement to initiate monitoring prior to construction, as necessary, and to maintain continuous services throughout the duration of the work. Our team is fully available to support the anticipated construction schedule and will actively participate in pre-construction and coordination meetings.

With a strong track record of delivering geotechnical instrumentation and monitoring services across New York and the surrounding region, Tectonic Engineering is committed to providing high-quality, dependable service that supports safe and successful project delivery.

Corporate Office

70 Pleasant Hill Road, PO Box 37 | Mountainville, NY 10953
845.534.5959 Tel | 845.534.5999 Fax

tectonicengineering.com
Equal Opportunity Employer

We appreciate the opportunity to be considered for this project and look forward to working with the Ossining Public Library and Calgi Construction Company. Please do not hesitate to contact us should you require additional information.

Sincerely,
TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C.

A handwritten signature in blue ink, appearing to read 'B. Figurski', with a stylized flourish at the end.

Bryan Figurski
Manager of Construction Monitoring

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1.0 FIRM OVERVIEW

TECTONIC ENGINEERING & SURVEYING CONSULTANTS P.C. (Tectonic) offers a full spectrum of professional engineering and design services to match its clients' growing needs. Established in 1986, Tectonic has grown to become a multi-disciplined engineering firm with a staff of approximately 500. As one of the top 500 Engineering News-Record engineering design firms, since 2001, Tectonic is committed to providing a well-organized, thorough, practical team that delivers a timely, economical, and quality product offered from offices located in the Northeast.

Tectonic is owned by the Executive Chairman Donald A. Benvie, PE, PG. Tectonic's principal office and headquarters is located in Mountainville, NY with 14 branch offices located in NY, NJ, CT, PA, VA, FL, and CA. **Our NY branch offices include White Plains, Forest Hills, Newburgh, Albany, and Rochester, NY.**

The annual volume of the past five years is 26,800 projects and total volume \$430,469,507.

Tectonic's mission is to provide the highest level of quality and service; therefore, we concentrate our services on market sectors that reflect the strength and talent of our staff. Our core services include monitoring, civil, structural, geotechnical, environmental, and transportation engineering, surveying, cultural resource management, design engineering (including planning and permitting), construction management, construction inspection and materials testing.

From our 40 years of experience supporting local communities with various engineering and construction inspection services, we understand the fiscal constraints the local communities are operating under and bring that sensitivity to your project. Time, cost, and quality control are the major objectives of every client, and each construction project requires specialized project management activities to meet these goals. Our personnel have the technical knowledge, as well as the practical experience, to provide solutions before a problem impacts the project schedule or budget. Our unique blend of engineering expertise, management experience, environmental awareness, and construction specialties enables our firm to handle projects from concept through completion, efficiently and effectively. Tectonic is honored as one of Engineering News-Record's Top 500 Design Firms since 2001 and has garnered numerous Engineering Excellence Awards from the American Council of Engineering Companies (ACEC).

GEOTECHNICAL INSTRUMENTATION & MONITORING SERVICES

Tectonic's construction phase monitoring capabilities encompass a full range of services that include state-of-the-art fully automated monitoring equipment with industry leading data management systems to provide both private and public sector clients with real-time monitoring data and intuitive reporting. Tectonic's professionals are equipped with the field experience, resources and collective knowledge to support any phase of the project's life cycle, from preconstruction to final construction.

Tectonic is known as a leading provider of geotechnical and survey monitoring services throughout the northeast, specifically in the New York State Metropolitan area. Our focus is to ensure that the impact of construction to structures, including adjacent properties, is not compromised prior to, during, and after construction is completed.

Our clients have relied on Tectonic to ensure the quality of construction by protecting the value of their building and infrastructure assets through rigorous oversight procedures that employ state of the art testing and inspection techniques. Tectonic works closely with the entire project team to ensure compliance with all specifications and regulations.

CONSTRUCTION MONITORING SERVICES:

- Vibration and Blast Monitoring
- Noise Monitoring
- Air Quality Monitoring
- Tilt Monitoring
- Crack Monitoring
- Optical Survey Monitoring
- Pre and Post Condition Surveys
- Steel Plumbness Surveys
- As-Built/As-Constructed Surveys
- Environmental Monitoring
- Site Specific Health & Safety Plans and Monitoring

2.0 PROJECT APPROACH

Tectonic understands that the Ossining Public Library is seeking to retain the services of a qualified professional and experienced firm to provide Geotechnical Instrumentation and Monitoring Services.

Tectonic will install DMP's & UMP's at locations shown on the "Conceptual Monitoring Point Location Plan" Sheet C-06 of the plan set, dated 02/09/26.

Approximately (8) Utility Monitoring Points (UMP's) will be installed at locations shown on the plan provided. Installation for (3) of the points that will be directly on the utilities will be installed through a vacuum excavation sub-consultant. All work will be performed per the specifications provided. The points (5) on manholes or drainage structures will be marks set on the structure that will allow Tectonic surveyors to return to the same point throughout the duration of the project.

Approximately 24 Deformation Monitoring Points (DMP's) will be installed at locations on walls and buildings as shown in the above referenced plan. The points will be survey grade monitoring prisms. The prisms will be attached to the structure with either a small self-tapping screw or construction adhesive depending on the surface of the structure.

Tectonic will take a minimum of three sets of measurements on all monitoring points to ensure accuracy. Measurements will be taken with a survey grade total station and level. A report showing the measurements taken and final average base measurements will be provided. Interim measurements will be taken weekly by a survey crew. The crew will take measurements from the same location to ensure consistency. Reports, interim measurements and graphs showing movement will be via a dedicated website available for viewing to everyone that is required to have access.

Vibration Monitoring

Install and monitor up to three (3) seismographs, equipped with wireless data transfer modules, placed at locations identified on the "Conceptual Monitoring Point Location Plan" Sheet C-06 of the plan set, dated 02/09/26 and per specification section Geotechnical Instrumentation and Monitoring (310900).

The seismographs are capable of measuring peak particle velocity from 0.01 to 10 inches per second with an accuracy of +/- 5 percent of the measured peak particle velocity, or 0.02 inches per second, whichever is larger, at frequencies between 4 and 125 Hertz. The resolution is .005 inches per second. All seismographs will be calibrated within 12-months from the date of deployment and are capable of internal dynamic calibration checks. If erroneous readings or failed self-checks are recorded, a replacement seismograph will be mobilized.

The seismograph units consist of two parts; a geophone housing the velocity sensors, and an electronic data processing unit. The geophone will be coupled to the adjacent areas with an approximate 25-pound sandbag, anchored directly to the concrete wall or floor slab, or directly buried in the soil using soil spikes.

The vibration monitoring data will be transmitted wirelessly through InstanTel's remote access Auto Call Home feature and a cellular modem. Whenever an exceedance event occurs or the machine is scheduled to download daily data, the monitor automatically connects and downloads all event data to a remote server stored at our office. In the event that a vibration level exceedance occurs, the project team will get an automated event report via email within 5 minutes after the event occurred.

Effective communication at all levels is essential. Understanding the client's requirements and expectations at the start of the project is the first step in establishing an effective channel of communication. Maintaining these lines of communication throughout the project duration is essential to ensure the transfer of all information necessary to produce a final acceptable product. Tectonics Quality Assurance program begins with a clear definition of expectations. In summary, Tectonics management approach is based on the point-of-contact method where our Project Manager will be the focus of all correspondence between the client and Tectonics staff. This presents a clear line of communication so Tectonic can effectively and rapidly respond to project demands.

Tectonic strives to have all projects stay within the approved budget and meet all project schedule milestones and deadlines. Conformance to established project schedules is achieved by assigning a proficient Project Manager to an experienced design team, who will coordinate all parties involved in the project and track progress on a regular basis. Tectonic utilizes several controls to ensure adherence to project schedules. Our interactive project reporting system allows Project Managers to obtain updated information on the status of a project, from both a technical and financial standpoint. This information is updated daily and used as a focal point for project status meetings. These internal resources provide for close project tracking and prevent any deviations from the established schedule. In addition, we keep the client informed as the project progresses to ensure a clear understanding of scheduling goals and objectives.

Tectonic offers a streamlined management program (including top supervisory skills and tailored quality assurance measures), state of the art resources and diverse expertise.

Our staff of professionals will be assisted by staff in their respective fields to complete the specific tasks under their coordination and supervision. This management approach ensures that all project activities are integrated, clear lines of authority are established and all the necessary "pieces" of the effort are collated into a comprehensive and complete plan that is delivered on-time and within budget.

As a minimum, all of Tectonic's field personnel have satisfactorily completed the 10-Hour OSHA Construction Safety Certification Program which provides our field staff with general awareness on recognizing and preventing hazards on a construction site. Tectonic also offers mandatory safety orientation for new employees and bi-annual refresher safety training sessions from our Corporate Health & Safety Officer, James Armstrong.

3.0 PROJECT TEAM OVERVIEW

Identified below are the key participants that will be involved in providing professional services to the Ossining Public Library. These individuals are available for immediate assignment, and they will direct and supervise individual tasks under this contract in their corresponding field of expertise.

■ **Mark Stier, P.E., P.G., Chief Operating Officer** will serve as **Project Director**. Mr. Stier will interface between the Owner's designated representative and Tectonic. He will assure that all staff assigned to this project are familiar with the project manual & specifications for inspections and materials testing work. Mr. Stier has over 32 years of experience in geotechnical engineering and construction support services. Mr. Stier also serves as the director of Tectonic's in-house laboratory and provides quality control and engineering oversight associated with laboratory testing.

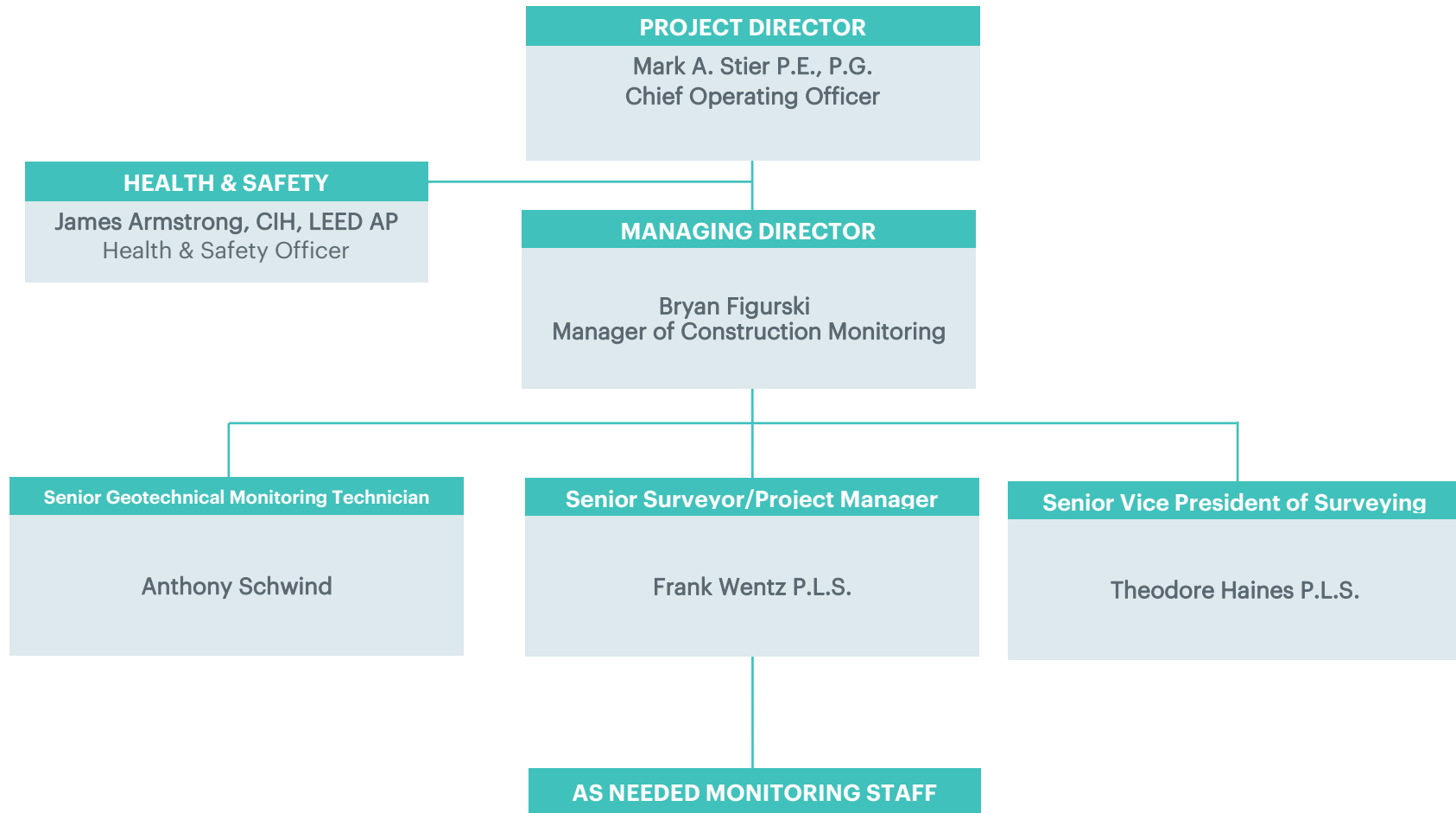
■ **Bryan Figurski, Manager of Geotechnical Monitor**. As Manager of Geotechnical Monitoring, he is responsible for all aspects of construction phase monitoring including the installation of geotechnical monitoring instrumentation using real-time instrumentation and monitoring technologies (automated total stations and reference prisms, deep benchmarks, tilt meters, load cells, electronic crack gauges, inclinometers, observation wells, piezometers, and seismographs), pre-construction and construction phase condition inspections; vibration and displacement monitoring; and monitoring of the support of excavation around the perimeter of project sites and adjacent properties; and preparation and review of field inspection reports.

■ **Anthony Schwind, Construction Monitoring Coordinator** will serve as an assistant to the project manager. Mr. Schwind's responsibilities include all aspects of construction phase monitoring including the installation of construction monitoring instrumentation using real-time vibration and displacement monitoring technologies (tilt meters, load cells, electronic crack gauges, inclinometers, observation wells, piezometers, strain gauges, and seismographs), pre-construction and construction phase condition inspections, and the preparation of monitoring data reports. He oversees quality control, coordinates personnel, and manages the monitoring web portal that delivers project monitoring data to the project team.

■ **Theodore J. Haines, P.L.S., Senior Vice President of Surveying Services** will serve as **Project Supervisor**. Mr. Haines is a hands-on Senior Vice President with over 30 years of surveying experience leading teams and managing all aspects of land surveying for a wide range of projects from residential and commercial developments to large-scale infrastructure. He oversees quality control, personnel supervision, project scheduling and direct client engagement to ensure technical deliverables meet scope, budget, and regulatory requirements. He specializes in proposal development, accurate cost estimation, and ensuring technical operations are strategically aligned with organizational goals. Mr. Haines collaborates closely with executive leadership to implement strategic initiatives, ensure efficient project execution and to maintain our high standards of quality and safety for operational excellence.

■ **Frank Wenz, P.L.S Senior Surveyor**, will serve as **Project Manager**. As part of the surveying team, Mr. Wenz is responsible for performing detailed analysis and computations of field and legal data to support the preparation of boundary surveys, A.L.T.A. surveys, topographic surveys, legal descriptions, baseline surveys, and corresponding draft deliverables. Additional responsibilities include GPS-based computations for converting local coordinate systems into the State Plane Coordinate System and determining true north, ensuring precision and consistency across all mapping and documentation efforts. Mr. Wenz is also proficient in a range of industry-standard software and instrumentation, including Civil 3D, Autodesk Land Desktop, Starnet, Leica Geo Office, Eagle Point, Benchmark, and Tripod Data Systems (TDS). Field operations and data collection are supported by advanced tools such as the Leica GS20 Geosystems GPS receiver and Leica Robotic Total Station, enabling efficient and highly accurate survey execution across diverse site conditions

Ossining Public Library: MSE Wall Repairs and Parking Lot Reconfiguration Project



Proposal:

Construction Phase Geotechnical Instrumentation and Monitoring Services

Provide Geotechnical Instrumentation and Monitoring Services during construction of the MSE Wall Repairs and Parking Lot Reconfiguration Project.

Install

DMP Deformation Monitoring Point	Quantity	24	Unit Price	\$150.00	Total * Amount	\$51,440.00
UMP Utility Monitoring Point	Quantity	8	Unit Price	\$1,265.00	Total Amount	\$32,660.00
VMP Vibration Monitoring Point	Quantity	3	Unit Price	\$2,250.00	Total Amount	\$24,750.00
Weekly Summary Monitoring Report	Weeks	46	Unit Price	\$300.00	Total Amount	\$13,800.00

Lump Sum Total:

Totals based on 46 week duration

***Unit Price rates are inclusive of all Overhead, Insurances, Fringe Benefits, Taxes, Worker's Compensation, Fees, Travel Time and Costs.**

Addendum Acknowledgement:

Number #1 Date:
Number #2 Date:
Number #3 Date:

***Acknowledgement that you have reviewed all Contract Drawings and Specifications noted in this Request For Proposal package:**

Bryan Figurski

SIGNATURE

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.

COMPANY NAME / TITLE Manager of Construction Monitoring