



Hayner/Swanson, Inc.

Civil Engineers/Land Surveyors

December 20, 2022

VIA EMAIL TO William.Oldenburger@dot.nh.gov

William J. Oldenburg, P.E.
Assistant Director of Project Development
John O. Morton Building
P.O. Box 483, 7 Hazen Drive
Concord, NH 03302-0483

Dear Mr. Oldenburg:

Hayner/Swanson, Inc. (HSI) is pleased to submit this Letter of Interest to be prequalified for Construction Engineering and Inspection Services on LPA projects. We are proud of the construction phase services which we provide to our municipal clients.

Our team includes Sanborn Head & Associates, Inc., who will provide environmental and geotechnical support as needed. S.W. Cole Engineering, Inc. will perform quality assurance testing, as well as be available for consultation on pavement condition and analysis as needed. We enjoy a longstanding relationship with both firms and have worked together during numerous contracts.

Thank you for the opportunity to submit our qualifications. If you have any questions or would like more information on any aspect of this Letter of Interest, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "John C. Vancor", is written over the typed name.

John C. Vancor, P.E.
Vice President/Principal Engineer

Project Understanding and Approach

Hayner/Swanson, Inc. (HSI) has provided extensive Construction Engineering and Inspection Services to municipal clients on a wide range of projects. These projects have included arterial and local road construction and rehabilitation, construction of ADA compliant sidewalks, drainage and sanitary sewer system improvements, water main replacements, environmental mitigation, landfill capping, and construction of parking lots and recreation facilities.

Experience has demonstrated time and again that the keys to providing effective construction administration are good communication and solid recordkeeping.

A crucial first step on a project for our construction engineers and inspectors is to gain a strong understanding of the design. Plans, details and specifications are reviewed. Particular attention is focused on special provisions and local requirements.

The review of submittals and especially schedule submittals are often the first step in developing a working relationship with the Contractor. Our review of the work schedule is not a casual step, but rather an effort to fully understand the workplan. The effort the Contractor puts into their schedule submittal is often an indication of how diligent they will be in their planning and coordination throughout the contract.

We consider the preconstruction meeting to be an important step in establishing an orderly communication process with roles clearly defined. Preparation for a well planned meeting and following a comprehensive agenda are important.

Establishing the role of inspectors is also an important early priority. The goal is consistent oversight even when differing staff may be assigned. It's important that the inspector establish communications with the Contractor's Superintendent with the understanding that communications with other members of the Contractor's staff is to be minimized.

We encourage our inspectors to ask questions and document answers. Our inspectors not only observe the specific work being performed but also routinely review the entire work site and monitor traffic control operations. We find it is valuable to take a break from the site and drive through the work zone to look for potential sources of confusion.

HSI inspectors complete detailed daily reports. These are completed the day of inspection. "Catching up" after several days is not allowed.

Although many Contractors resist holding weekly coordination meetings, we believe these meetings are important. In addition to reviewing progress and expected future work, our agenda for these meetings includes a question to the Contractor as to whether they have performed any work which they believe to be beyond the requirements of the bid documents. We also ask and document if they have received any complaints or have been notified of potential claims.

Monitoring the Contractor's adherence to labor requirements is another important aspect of the work. By reviewing sign-in sheets and payroll information, and by asking questions accordingly, we strive to assure that the Contractor feels "watched". On the rare occasions when issues have arisen, we have promptly reported these issues to NHDOT.

If a possible design issue is encountered, it is important not to "take sides". The goal for our construction engineers is to find an acceptable solution as early as possible.

Once an issue has been identified, we will take care to understand the Contractor's perspective on how the issue was encountered and possible background conditions which led to the issue.

We consider that it is important to notify the Design Engineer of Record of potential issues early, as appropriate. Sometimes failure to understand nuances of the design intent may make it appear there is an issue when none exists. Early communication with the designer may prevent errant construction work caused by a misunderstanding.

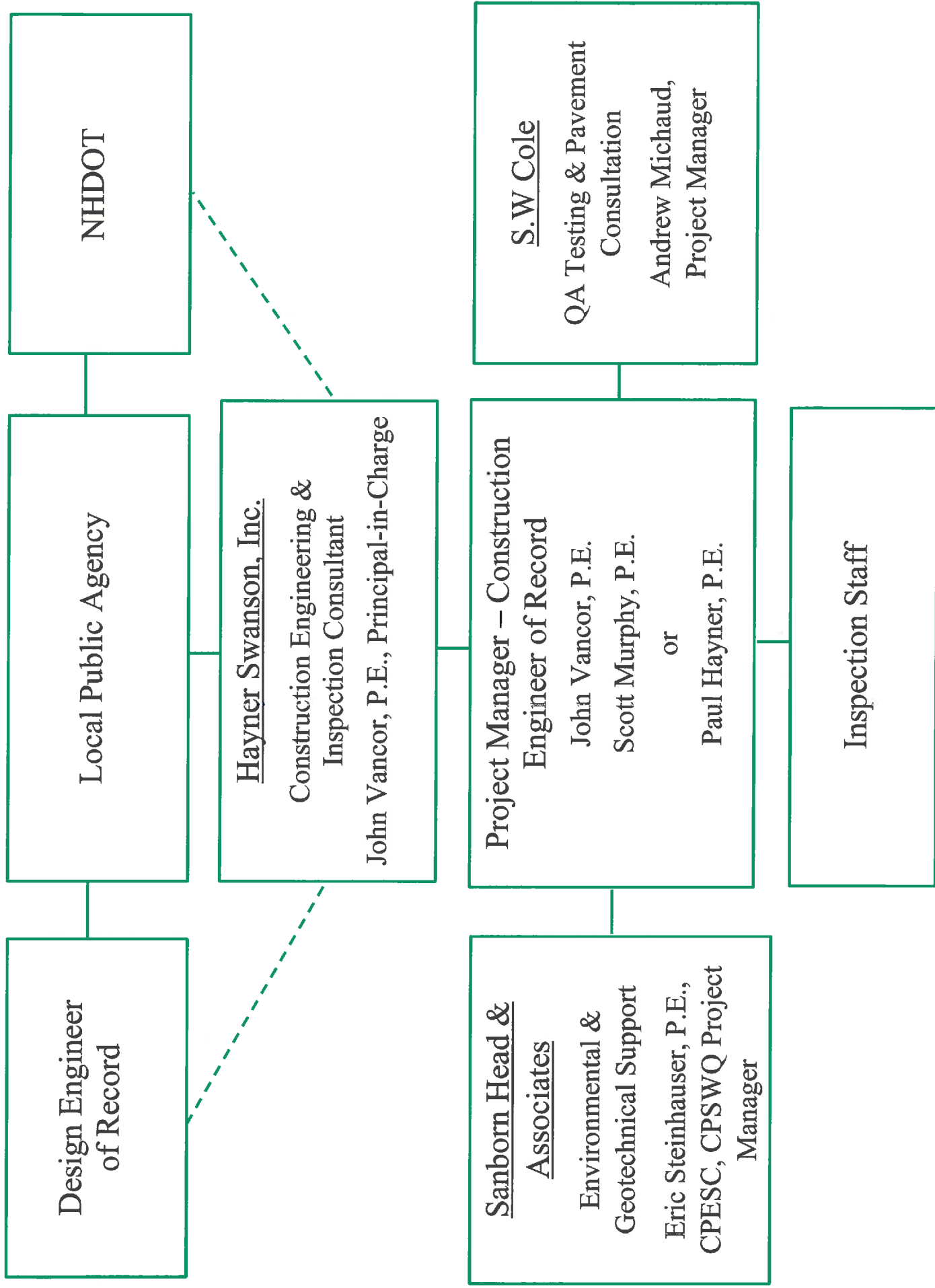
In the case of a possible error or omission on the part of the Designer, the sooner their input is requested the better the chances for a minimal delay during resolution. At this point the Construction Engineer's role is not to assign blame but to work toward being able to make a recommendation for the best resolution.

HSI is fully aware of the LPA process should a change order be needed. We have prepared Independent Government Estimates and reviewed these with our clients. We have participated in negotiations and have made recommendations for resolution. We have prepared documentation recording the entire process.

Needless to say, the final punchlist inspection is also an important step, but we believe there should not be many surprises in this inspection. If we have done our job well, neither the Owner nor the Contractor should be surprised by work remaining or rework needed.

To summarize our project approach, we emphasize to our staff that we represent our client best on construction projects by always striving to be fair and firm in applying contract requirements to the Contractor's work.

Organizational Chart



Project Team

Our team has provided construction engineering and inspection services on a wide range of municipally managed projects including extensive experience on LPA projects.

Whether on a project as large as the Broad Street Parkway in Nashua or the TAP project to construct sidewalks in Brookline, our clients know they can depend on thorough work by knowledgeable field staff who are backed by the strong expertise of our senior staff. Should issues arise, our construction engineering experience helps us work toward timely solutions mindful of the need to minimize delay and cost.

John Vancor, Paul Hayner and Scott Murphy can all serve as a Project Manager on a particular assignment, as well as perform a supporting role as needed.

Our team of Engineer Inspectors and Technician Inspectors provides our clients with a staff of inspectors who are mentored and supported by highly experienced construction professionals.

With decades of experience, Denis Hayner and Ray Gelinas are available to inspect complicated work while also acting as mentors for our less experienced staff who are performing inspections.

Dan Brown is in his second construction season with HSI. He joined us with a strong background in contracting. His background and knowledge gained from experience as well as from completing the NETTCP Certification for Pavement Inspection has made him an important part of our construction services group.

Sanborn Head and Associates will provide geotechnical and environmental support to our team. We enjoy a strong working relationship with Sanborn Head that has spanned many years. Whether their scope is large, or if they are brought in to address a specific concern, we have always found their approach to be appropriate and their advice valuable.

Sanborn Head worked closely with HSI throughout the LPA project to construct the Broad Street Parkway. Their role was related to very significant concerns with hazardous materials and management of urban fill. Several times during construction, their recommendations helped to minimize delay and reduce costs when unforeseen materials were encountered.

S.W. Cole will provide QA testing to our team, as well as consultation as needed on specific pavement condition concerns. S.W. Cole has worked in a similar capacity for HSI on projects in Nashua including the Broad Street Parkway, as well as various paving and reclamation projects for municipalities in New Hampshire and Massachusetts.

References

Lisa Fauteux
Director of Public Works
City of Nashua
P.O. Box 2019
Nashua, NH 03061-2019
(603) 589-3140

Daniel Hudson, P.E.
City Engineer
City of Nashua
P.O. Box 2019
Nashua, NH 03061-2019
(603) 589-3134

Stephen Dookran, P.E.
Town Engineer
Town of Concord, MA
133 Keyes Road, 2nd Floor
Concord, MA 01742
(978) 318-3210
(Former City Engineer, Nashua, NH)

APPENDIX
Resumes



John C. Vancor, P.E.
Project Manager

Qualifications

A Professional Engineer with over 35 years' experience on projects focused on improvements to public infrastructure. As a consultant and as a former City Engineer, Mr. Vancor has planned, designed and managed construction of improvements to highways, municipal roads and sidewalks, parking lots, recreational facilities, as well as stormwater, sanitary sewer and water distribution systems, and water facilities.

Previous employment includes experience working for contractors on multi-million dollar projects.

He is a Registered Professional Engineer in New Hampshire, Massachusetts, Connecticut, Rhode Island and Vermont.

Professional Affiliations

- New Hampshire Public Works Association Board of Directors
- American Public Works Association
- American Society of Civil Engineers National Local Roads & Streets Committee
- Past Chair, American Society of Civil Engineers NH Technical Committee

Participated in development of ASCE Footprint Design Manual for Local Streets, 2010

Education

RENSSELAER POLYTECHNIC INSTITUTE, Troy, NY
B.S., Civil Engineering

Local Public Agency (LPA) Certification, NH

Professional Experience

Broad Street Parkway, Nashua, NH

Provided overall project management support to the City of Nashua on this Local Public Agency (LPA) project.

Managed the overall effort to provide construction administration in accordance with LPA requirements.

In this role, HSI performed construction engineering and inspection for civil/highway work and managed the work by structural and environmental engineers performing similar work on structural and environmental components.

With multiple concurrent construction contracts and extensive utility coordination, it is notable that this \$60 million project opened on schedule and under budget.

Federally Funded Arterial Paving, Nashua, NH

Overall Project Manager for construction phase services on this ongoing \$4.3 million LPA contract to pave 4.6 miles of arterials.

Key elements of this work have included provisions for traffic management and the need to reconstruct many sidewalk ramps, often in difficult urban locations.

Sidewalk Construction, Brookline, NH

Project Manager on this project to provide Construction Engineering and Inspection for this TAP project to construct 5,200 linear feet of sidewalk in two locations.

Paving Program, Nashua, NH

Project Manager providing construction phase support to the City during the ongoing major expansion of the City Paving Program. Provides construction engineering and manages work by inspectors.

In an effort to raise the overall condition of the City's roadway network, the City embarked on an ambitious five year program. They brought HSI in to help administer this expanded effort.

Various Infrastructure Projects, Malden, MA

Assists in the Project Management of construction phase services on several multi-year roadway and utility programs.



Qualifications

A Project Manager with over 25 years experience with emphasis on projects involving roadway and sidewalk construction and reconstruction, stormwater management, utility improvements, recreation facilities and site improvements.

Extensive experience in construction administration and observation. Coordinates with contractors, maintains records, tracks progress, observes construction, monitors traffic control and assures labor compliance.

Reviews submittals, schedules, progress reports and payment requisitions from contractors. Schedules QA testing and monitors results. Coordinates regularly with municipal staff and when appropriate, reviews and makes recommendations on change order proposals.

- Registered Professional Engineer
- Approved Massachusetts DEP Soil Evaluator (#SE1715)
- Specialized Training in:
 - Low Impact Development
 - Bioretention Systems
 - Pavement Rehabilitation
 - Participated in 2015 ASCE Pavement Seminar

Education

UNIVERSITY OF MAINE,
Orono, ME
Bachelor of Science,
Civil Engineering, 1992

**Local Public Agency (LPA)
Certification, NH**

Professional Experience

Federally Funded Arterial Paving, Nashua, NH
Supporting the management of the effort to provide construction phase services on this \$4.3 million LPA contract to pave 4.6 miles of arterials. Coordination and inspection of work to make pedestrian ramps ADA compliant has been a key aspect.

Monitors progress and tracks quantities. Reviews schedules and coordinates with contractor. Reviews the contractor’s compliance with labor requirements. Compiles daily reports by inspectors.

Sidewalk Construction, Brookline, NH
Reviewed submittals, tracked quantities and coordinated with inspectors on this TAP project to construct 5,200 linear feet of sidewalk in two locations.

Broad Street Parkway, Nashua, NH
Provided extensive inspection and coordination during this multi-contract LPA project to construct a new parkway. Tracked quantities and budgets using NHDOT CMS software. Led the effort to maintain records of work completed and labor compliance.

Paving Program, Nashua, NH
Provides construction phase support on this ongoing program with extensive reclamation as well as mill and overlay treatment to roadways. Tracks progress and quantities. Coordinates with contractors and City. Schedules inspectors and resolves engineering issues.

On-Call Services, Lincoln, MA
Provides support during Town construction projects on an on-call basis. Meets with Town officials and contractors. Assists in responses to RFIs. Assists the Town to resolve issues with quality of the constructed work.

Pine Banks Park, Malden & Melrose, MA
Provided construction engineering and inspection during a multi-phase \$4 million project to cap a former landfill, construct playing fields, a running track and a dog park. Work included extensive earthwork, construction of subsurface infiltration systems, preloading to address geotechnical issues and significant environmental constraints.

Other HSI Staff

Paul Hayner, P.E. has more than 50 years professional experience working on a wide variety of public and private development projects. He has provided construction administration on numerous projects and has often been sought as an expert to solve issues that arise during construction.

Presently, Paul is leading our construction administration support to the City of Nashua on their annual sanitary sewer rehabilitation program. This is the second year HSI has provided this support to Nashua. Work underway includes a \$2.5 million contract to replace mains and complete spot repairs at various locations.

Paul also takes a leading role in management of our ongoing road and utility work in Malden, MA. Coordinating with City officials and contractors regarding staging and traffic control is one of the concerns he addresses in these contracts where the work is often performed in tight urban work zones.

Denis Hayner has gained a wide range of experience while working over 28 years on a variety of field assignments. He has inspected highway and roadway construction, major earthwork projects, private developments and environmental mitigation.

His expertise includes inspection, soil classification, quality assurance testing for soil properties and compaction and construction stakeout. In addition to inspecting construction, he has inspected and logged borings and installation of monitoring wells.

Denis' attention to detail and knowledge of construction methods makes him valuable on projects that involve tight work area restrictions, complicated utility conflicts and traffic control challenges for motorists and pedestrians.



ERIC S. STEINHAUSER, PE, CPESC, CPSWQ Principal-in-Charge

Eric has over 30 years of design, permitting, and construction experience. He has held a lead design, project management, or senior reviewer role for numerous civil, environmental, geotechnical, and transportation projects. In addition, Eric has published and presented papers, both nationally and internationally, on a variety of engineering topics. He also has extensive experience managing large, multi-discipline projects, developing contract documents, and managing construction quality assurance and contract administration.

RELEVANT EXPERIENCE

I-93/Exit 4 NHDOT, Environmental Engineering, Londonderry/Derry, NH

Responsible for the firm's efforts relative to municipal coordination, permitting, construction document preparation, and project management. Reviewed the Prosecution of Work, help quantify potential groundwater impacts to the project, and worked with staff in reviewing the contractor's Project Operations Plan.

Bridge Street / East Hollis Street Intersection Improvements, Environmental and Geotechnical Engineering, Nashua, NH

Overseeing the firm's efforts relative to the collection of soil samples to delineate the presence of asbestos in the work area and develop protocols for material handling during construction. Perform geotechnical study for structural aspects of the project.

Gully Hill NHDOT Storage Shed, Groundwater Monitoring, Concord, NH

Oversaw the firm's efforts relative to the collection of groundwater samples for chlorinated solvents (CVOCs) and reporting of results as part of the NHDES GMP compliance activities.

George Street Bridge Replacement, Environmental Engineering, Nashua, NH

Overseeing the firm's efforts relative to the collection of soil samples to delineate the presence of volatile organic compounds in the work area and develop protocols for material handling during construction.

I-293 Exits 6 and 7, Environmental Services, Manchester, NH

Lead efforts to evaluate the potential impact on an adjacent closed, unlined landfill. Directed the preparation of a Preliminary Cost Opinion Memorandum for managing the potential environmental impacts during construction.

Benson Animal Park NHDOT, Environmental Engineering, Hudson, NH

Responsible for overseeing project coordination, management and preparation of the NHDES Groundwater Management and Solid Waste Standard Facility Permits. He also was directly involved in planning and negotiation meetings internal to NHDOT and with the Town of Hudson.

Stickney Avenue NHDOT, Groundwater Monitoring, Concord, NH Plymouth/Holderness NHDOT, Groundwater Monitoring, Plymouth, NH

Responsible the firm's efforts relative to groundwater monitoring and reporting, and routine client communication.

KEY AREAS OF PRACTICE

Stormwater Management and Erosion & Sediment Control
Solid Waste and Landfill Gas Engineering
Civil and Geotechnical Engineering
Remediation Engineering
Project Management
Construction Quality Assurance (CQA)

EDUCATION

M.S., Civil Engineering, Syracuse University, 1987
B.S., Civil Engineering, Syracuse University, 1984

REGISTRATIONS / CERTIFICATIONS

Professional Engineer – AL, CT, DE, IA, ME, MD, MI, NH, NJ, NY, OH, PA, RI, VT, VA, WV
Certified Professional in Erosion and Sediment Control
Certified Professional in Stormwater Quality

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers
ASTM International, Subcommittee D-35 on Geosynthetics
National Society of Professional Engineers
New Hampshire Waste Management Council
New York State Association for Solid Waste Management
Solid Waste Association of North America – Northern New England, New York State, New Jersey, and Keystone Chapters
International Erosion Control Association – Northeast Chapter – President and NH Representative

SANBORN HEAD

Since 2004



S.W.COLE
ENGINEERING, INC.

Our Clients Make Better Decisions
From the Ground Up.



Andrew A. Michaud
Construction Services Manager
Office Manager

Education:

B.A., Communications
University of Maine

Certifications:

ACI Concrete Field Technician Level 1

ACI Aggregate Testing Technician
Level 1

ACI Concrete Laboratory Testing
Technician Level 1

ACI Concrete Strength Testing
Technician

ICC Reinforced Concrete Special
Inspector

ICC Soils Special Inspector

ICC Structural Masonry Special
Inspector

NETTCP HMA Plant Technician

NETTCP Soils and Aggregate
Inspector

Certified Nuclear Densometer
Operator

OSHA 10-Hour Construction
Safety & Health Certified

Specialized Training:

Graduate, ASFE Fundamentals of
Professional Practice Course

Andrew Michaud joined S. W. Cole Engineering, Inc. in 1999 as a technician with the firm in the field services and laboratory testing divisions. In 2008, he was named construction services manager of our Keene, New Hampshire office, and in 2012, he became office manager of the new Manchester office. His responsibilities at S.W.COLE include contract and business development, project management and assisting with testing services such as soil density, concrete, masonry, and performing special inspections and associated laboratory testing.

Andrew has managed and performed materials testing on more than 20 New Hampshire Department of Transportation (NHDOT) Local Public Agency (LPA) projects since 2009. He has a strong understanding of the NHDOT Quality Assurance Program for Municipally Managed Federal Aid Projects, the acceptance criteria and the QA testing procedures provided in the document. Some projects include the Court Street Bridge in Keene, New Hampshire; Broad Street Parkway in Nashua, New Hampshire; and Turkey Hill Bridge in Merrimack, New Hampshire.

Project Experience:

Wentworth-Douglass Hospital Parking Garage, Dover, New Hampshire: S.W.COLE was retained in 2003 to provide construction quality control testing services for the addition to the parking garage. The project consisted of a pre-cast concrete parking garage addition with a footprint of 51,000 sf adjacent to the existing parking garage. The addition was designed to include six levels of parking. In the summer of 2006, the first three levels were constructed. The project also included an elevated helipad structure and pedestrian bridge. Andrew provided testing services including drilled pier installation monitoring and soil and concrete testing, as well as special inspections of soil and concrete, in 2006.

Federal Corrections Institution, Berlin, New Hampshire: Andrew was responsible for site observations and field and laboratory testing of soil and concrete. The project consisted of cuts and fills of approximately one million cubic yards of earth and the placement of 15,000 cubic yards of concrete. Andrew provided photo documentation and construction observation reports of daily activities to the construction manager and the Federal Bureau of Prisons. Other duties included special inspections of soils, cast-in-place concrete, pre-cast concrete erection and masonry.

Lempster Mountain Wind Farm, Lempster, New Hampshire: This renewable energy project consisted of the construction of 12 two-megawatt wind turbines. Andrew's duties consisted of performing bedrock and soil subgrade observations, reinforcing steel inspections, rock anchor installation and tensioning observations, and field testing of concrete, soil, and rock anchor grouting.

Cheshire County House of Corrections, Keene, New Hampshire: S.W.COLE was retained to provide construction materials testing and special inspections for this project, including field and laboratory testing of concrete, soil, masonry, and asphalt, structural steel inspections and observations of site preparations.

Haverhill Commons, Haverhill, Massachusetts: This retail development included the construction of two large retail stores approximately 150,000 square feet each. The site included significant variation in surficial topography across the site, requiring cuts and fills of up to 35 feet to achieve finish grade. Site grading was accommodated using numerous large retaining walls and blast rock permanent faces. Andrew provided photo documentation of the daily activities and electronically submitted photographs and construction observation reports to the developer.

MANCHESTER AREA OFFICE

APPENDIX
Applicable Work Experience

Applicable Work Experience

HSI has provided construction engineering and inspection services on many municipal projects. Relevant examples include:

Broad Street Parkway, Nashua, NH

HSI led the construction administration, construction engineering and inspection effort on this \$60 million LPA project. HSI inspected all civil/highway construction and monitored the work of other consultants inspecting structural and environmental elements.

With multiple contracts often under construction concurrently, coordination was a major element in HSI's work. Well planned weekly coordination meetings with agendas distributed in advance, attendees invited to the extent that their attendance was critical and minutes prepared and distributed were an important part of the successful coordination effort.

Extensive utility coordination was necessary throughout the construction phase to assure that the aggressive construction schedule would not be delayed by incomplete relocations.

HSI compiled the extensive project records in accordance with LPA requirements.

In cases where change orders were necessary, HSI managed the effort, performed Independent Government Estimates, led negotiations, made recommendations to the City and record the process with detailed memorandums.

Notably, the consulting team effort which HSI managed was awarded the overall 2017 Engineering Excellence Award by ACEC-NH.

Sidewalk Construction, Brookline, NH

TAP project to construct 5,200 linear feet of sidewalk in two locations. Construction in 2017.

2020 Paving and Reclamation Program, Nashua, NH

Working as an integrated part of the City team to provide construction engineering and inspection on this \$8.4 million contract. HSI provides inspection, tracks quantities, helps resolve grading issues during reclamation and monitors traffic control.

For reclaim street, assuring the contractor removes enough material and grades to eliminate puddling are consistent areas of concern. Assuring appropriate care at driveway tie-ins is another area of consistent concern.

Federally Funded Arterial Paving Contract, Nashua, NH

HSI led the construction administration on this \$4.3 million contract to mill and overlay 14.6 miles of arterial roadway. Monitoring traffic control, quality assurance and reconstruction of ADA compliant ramps have been key elements. HSI tracked quantities, reviewed pay requisitions and monitored labor compliance. Construction commenced in 2018 and was completed in 2020.

Annual Paving Programs, Nashua, NH 2017-Ongoing

Providing full time construction administration support including engineering and inspection on multiple contracts to rehabilitate City streets. Contracts included:

- 2022 – 1 Contract totaling \$4,687,800 and 14 miles of roadway
- 2021 – 2 Contracts totaling \$8,277,483 and 20.5 miles of roadway
 - Contract Residential: \$4,585,195 and 14.1 miles of roadway
 - Contract Arterial & Collector: \$4,191,007 and 7.4 miles of roadway
- 2020 – 2 Contracts totaling \$8,277,483 and 20.5 miles of roadway
 - Contract 1: \$4,014,750 and 10.7 miles of roadway
 - Contract 2: \$4,262,733 and 9.8 miles of roadway
- 2019 2 Contracts totaling \$11,598,600 and 23.3 miles of roadway
 - Arterial Contract: \$6,948,000 and 11.8 miles of roadway
 - Residential Contract \$4,650,600 and 11.5 miles of roadway
- 2018 Program - \$6.7 million contract for 24.5 miles of roadway

Change Order to 2016 Paving Program

\$2.1 million change order to mill and overlay 6.5 miles of roadway. Construction was performed in 2017.

Annual Sewer Rehabilitation Program, Nashua, NH 2019 - Ongoing

Presently providing construction administration and full time inspection for the ongoing annual program to construct point repairs, reconstruct sewer and line pipe at multiple locations throughout the City. Traffic control and utility coordination are important elements in this work. Many locations are in congested, densely developed urban areas.

- 2022 Sewer Replacement - \$2.6 million
- 2022 Cured in Place Sewer Lining - \$1.4 million
- 2021 Cured in Place Sewer Lining - \$2.0 million
- 2020 Sewer Replacement - \$3.8 million
- 2019 Sewer Replacement - \$1.0 million
- 2019 Cured in Place Sewer Lining - \$4.9 million

Pine and Palm Street Reconstruction, Nashua, NH

HSI led the construction administration and inspection effort on this \$2.5 million contract to reconstruct 3,600 linear feet of roadway and sidewalk in this highly developed urban neighborhood. Staging and traffic control were key concerns throughout the work and extensive coordination was needed with the contractor and with utility owners. Work included reconstruction and spot improvements to drainage and sewer pipelines.

Harbor Avenue Sewer Separation, Nashua, NH

Provided administration, construction engineering and inspection on this \$4.6 million contract to separate combined sewers in an urban area. Work included extensive reclamation to restore roadways within the project area.

Relevant Work in Massachusetts

HSI also provides construction engineering and inspection services to several municipalities in Massachusetts. We note that our staff is fully integrated with our staff members working on projects in both states.

In **Malden, MA**, we have provided construction engineering and inspection on utility and roadway projects since 2016. Examples include:

- 2016 Roadway Rehabilitation Program – 3 contracts totaling \$3.4 million for 1.7 miles.
- 2017 Roadway Rehabilitation Program – 4 contracts totaling \$5.9 million for 3.6 miles.
- 2018 Roadway Rehabilitation Program – 4 contracts totaling \$3.9 million for 2.2 miles.
- 2019 Waterworks Improvement Program - \$850,000 contract to replace 2,450 linear feet of water main, services and hydrants on four streets.

HSI provides on-call construction phase services to the **Town of Lincoln, MA**. Town staff handles most of the day to day construction administration but uses HSI's support for construction engineering and administration tasks. Typical services include scheduling and chairing preconstruction meetings, performing milestone inspections, generating punchlists, evaluating change order proposals and providing stakeout as requested by the Town.

SANBORN HEAD & ASSOCIATES

Sanborn Head has a well-established reputation for their construction phase environmental and geotechnical services. A few of the many projects they have successfully performed include:

Broad Street Parkway, Nashua, NH

Working closely with Hayner/Swanson, Inc. throughout the construction phase, Sanborn Head was responsible for monitoring work by several contractors as deposits of asbestos containing materials and urban fill were encountered. Sanborn Head prepared the associated closeout documentation.

At several times during construction, significant issues came up with respect to the ability to reuse urban fill and the quantities and locations where asbestos was encountered. Sanborn Head played an important role in resolving these concerns with minimal impact to budget and schedule.

I93/F.E. Everett Turnpike/Granite Street Project Improvements, Manchester, NH

Sanborn Head provided construction administration and observation services to NHDOT for this project. Responsibilities were related to urban fill as well as closure activities for seven former petroleum UST facilities.

University Station, Westwood, MA

As both the geotechnical and environmental engineer for the project, Sanborn Head provided full time on-site observation to document excavation, reuse and off-site disposal of excess soils which ranged from unregulated soils to hazardous materials.

On-Call Work with State DOTs

Sanborn Head's work for both NHDOT and MassDOT often involves relevant fieldwork. Examples of projects Sanborn Head has performed for MassDOT include

- Route 119 Roadway Widening – Littleton, MA
- Pavement Evaluations and Traffic Signal Foundations for intersection improvements in Belchertown, Southborough, Oxford, Auburn, Grafton, Sudbury and Newton, MA
- I-95 and University Ave Interchange – Retaining Walls and Mast Arms, Westwood, MA
- Ponders Hollow/Greenway Trail Bridge – Westfield, MA
- Route 9 Roadway Widening, Retaining Wall and Mast Arms – Chestnut Hill, MA

S.W. COLE ENGINEERING, INC.

Broad Street Parkway, Nashua, NH

In performing QA testing throughout the highway and bridge contracts for the Parkway project, S.W. Cole demonstrated their depth and flexibility in being able to meet the demanding schedule for testing on multiple concurrent contracts.

Nashua Paving Program, 2017-2020

Working closely with Hayner/Swanson and the City of Nashua, S.W. Cole has provided timely and reliable testing as the City significantly expanded the scope of their paving program.

Together, HSI and S.W. Cole prepared recommendations to the City to expand the overall Quality Assurance program for this work following several incidences where quality of mix previously placed was a concern. The City concurred with these

recommendations and during the 2019 and 2020 programs, S.W. Cole have been providing plant inspections whenever paving is being performed. With three paving contractors working concurrently, the ability to perform these inspections underscores the depth of S.W. Cole's staff.