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HEB

ENGINEERS



PREPARED FOR NHDOT

**PREQUALIFICATION FOR CONSTRUCTION ENGINEERING AND INSPECTION SERVICES FOR LPA PROJECTS**

FEBRUARY 2024



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February 01, 2024

Tobey Reynolds, PE  
Assistant Director of Project Development  
Chairperson, Consultant Selection Committee  
New Hampshire Department of Transportation  
7 Hazen Drive, PO Box 483  
Concord, NH 03302-0483

**Re: Prequalification for Construction Engineering and Inspection Services for LPA Projects**

Dear Mr. Reynolds and Members of the Selection Committee,

Thank you for the opportunity to present the following information as part of the prequalification process for Construction Engineering and Inspection (CE&I) Services for LPA projects statewide. We take great pride in our ability to assist Local Public Agencies (LPA) in the development and construction of their transportation infrastructure projects. Our strong track record with LPA projects makes us a good fit for the prequalified list.

HEB's strengths as they relate to CE&I Services for LPA projects include:

» **Diverse LPA Project Experience**

As a municipal infrastructure consultant, we have had the good fortune of working on a variety of municipal transportation projects including those within the State Bridge Aid, State Aid Highway, Transportation Alternatives, and Safe Routes to School programs. We are ready to apply this experience to future LPA projects making a difference in our communities.

» **LPA and OFC CE&I Expertise**

The majority of the technical staff at HEB are both LPA and OFC certified, including Engineers and Resident Project Representatives. While certifications are great, we take more pride in our strong track record of ensuring compliance on State and Federal funded projects. In fact, HEB received a certificate of excellence in 2010 from NHDOT while providing oversight on a Federally Funded construction project and the former Sr. Federal Compliance Officer for NHDOT (Doug Potter) had this to say on a Consultant Evaluation in 2016 "Eric Grenier of HEB did an outstanding job covering the labor compliance requirements on this project. The project had its share of problems and Eric worked diligently with the contractor to keep things on track." It's clear we know what we are doing!

» **New Hampshire Familiarity and Reputation**

The majority of our work is directly with New Hampshire municipalities on their transportation infrastructure needs. Because of this history, and the successes that have followed, we are viewed as one of the most well-respected New Hampshire-based engineering firms. We think it makes good sense to include HEB on the prequalified list so that New Hampshire municipalities will have the option to work with a local firm, which is an important consideration especially for CE&I services.

We sincerely hope the following information provides the Department with the confidence to include HEB on the prequalified list for Statewide On-Call CE&I Services for LPA Projects. We have the experience, expertise, and capacity to provide these services for New Hampshire municipalities. We look forward to hearing from you. Thank you for your consideration.

Sincerely,  
**HEB Engineers, Inc.**



Jay J. Poulin, PE  
President



# PROJECT UNDERSTANDING & APPROACH

## PROJECT UNDERSTANDING

Similar to the Department, municipalities are always looking for ways to more efficiently address their infrastructure needs. Developing a prequalified list of capable and experienced LPA consultants for which municipalities can streamline their consultant selection process is one way to be more efficient. Prequalification by NHDOT would allow the LPA to solicit proposals from at least three firms from the prequalified list which would eliminate the need to advertise, review qualification statements, and develop a short-list of firms as required under the standard qualification based selection (QBS) process. The prequalification list will help municipalities save time up front during the QBS process and ensure communities are working with qualified firms.

In addition, due to conflict of interest (COI) concerns, the prequalification list is being developed for both Preliminary Engineering (PE) and Construction Engineering and Inspection (CE&I) services. Developing both prequalified lists will ensure procurement of consulting services for either PE or CE&I are done in a fair, open and competitive manner. In particular to CE&I services, requiring a different consultant for these services as compared to PE services, avoids conflicting professional and personal interest which could affect a firm's ability to provide impartial decisions or perform contractual obligations.

HEB is ready to put our experience, expertise and capacity to work. We hope the following approach demonstrates how HEB can build off past experiences and assist LPA's with their transportation projects.

## PROJECT APPROACH

HEB's project approach will be guided by two primary principles: **Responsiveness** and **Quality Service**. When considering CE&I services, each project will be different so we'll cater our approach in a way the best meets the need of the LPA.

*Our approach will include:*

### » Confirm Project Goals

Understanding the goals and priorities of the proposed project that are critical to its success is the first step. This is usually completed during the QBS process when the LPA is soliciting statements of qualifications for engineering services.



### » Develop Project Team

Based on the understanding of the project goals, we will assemble an experienced team of licensed professionals and specialized subconsultants best suited for the scope of services. Each project will be led by senior level staff providing the service expected by the LPA.

### » Contract Negotiation

Once the LPA has completed the QBS process, contract negotiations are then completed. Negotiations begin with the development of the project scope outlining the work tasks and schedule anticipated for the project. The scope of work matrix, is then provided to the LPA to complete the independent government estimate (IGE). Once the IGE is completed by the LPA, it is compared to the consultant's proposed fee and negotiations are then completed on the final scope and fee. A notice to proceed (NTP) for CE&I services is then provided by NHDOT once the LPA and NHDOT are both in agreement.

### » Pre-construction Conference

Prior to the beginning of construction activities, we will coordinate a pre-construction conference with the Contractor, LPA, NHDOT Project Manager, and other interested parties for the purpose of reviewing construction details, schedule and special requirements of the project. A well-planned pre-construction process is an important step to a successful construction project.



# PROJECT UNDERSTANDING & APPROACH

## » Construction Engineering and Inspections

The LPA is required to provide “close to full-time construction oversight” of a federal aid construction project and is required to be under the supervision of a Professional Engineer. In many cases, the LPA does not have the expertise in-house to complete these services so they rely on a qualified engineering consultant to act as the agent on behalf of the LPA. While the engineering consultant takes on the bulk of the CE&I duties, the LPA remains in responsible charge of the project and must provide an LPA-certified full-time employee to confirm the consultant is performing the work required by the process. It’s a team effort between the LPA and engineering consultant.

The major responsibilities of construction engineering and inspections generally include observing construction to assure compliance with plans, specification and contract requirements, monitoring compliance with traffic control plans and environmental commitments, coordinating quality assurance and material testing, managing all documentation related to the construction phase of the project, approving payment for work completed, and oversight of federal and state labor requirements and documentation. Depending on the project, the Professional Engineer and on-site Resident Project Representative will share the oversight of the major responsibilities.

## » Construction Project Records

Construction project records are a very important part of the project as they are the basis for reimbursement by NHDOT and FHWA. Failure to maintain proper records may result in reduced reimbursement for part or all of the project costs. Some of the major project records include executed contract documents, daily field reports, federal and state labor compliance documents, quantity and record books as well as record plans.

## » Project Status Reports

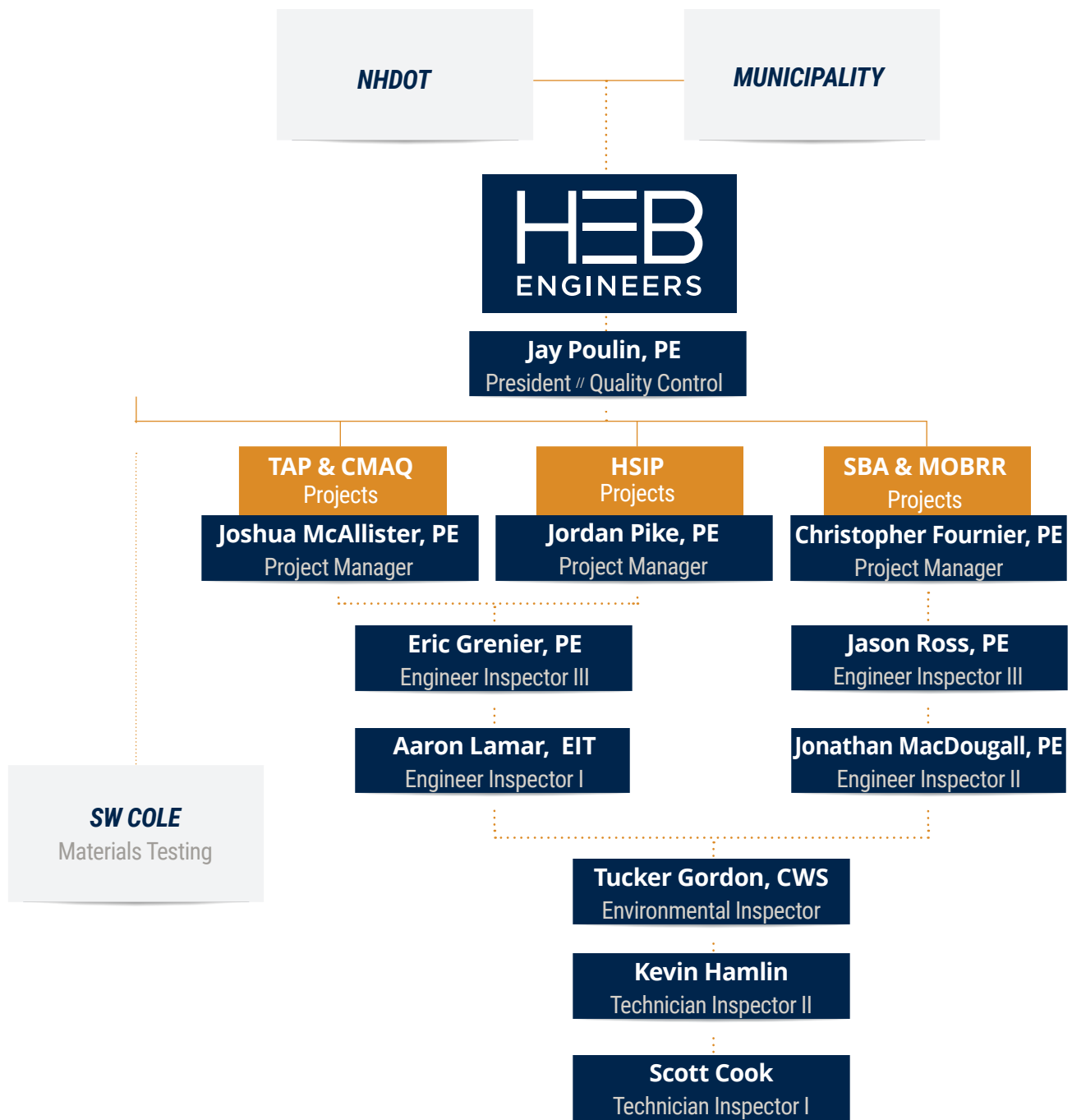
Once we are underway, HEB completes project status reports for each invoice period to keep all parties informed of where we are. We have found these reports to be very effective in keeping on track and providing a consistent forum for project updates.

**WITH A FULL STAFF OF ENGINEERS  
AND INSPECTORS, HEB IS READY TO  
TACKLE ANY LPA PROJECT!**



# ORGANIZATIONAL CHART

Jay Poulin, President of HEB Engineers, will serve as Principal-In-Charge and provide overall Quality Control. Project Managers will be assigned based on the project type and will be supported by our experienced staff of engineers, surveyors, technicians, and administrators as needed for the successful completion of the work. Our focus on training and technical expertise enables us to provide you versatile project teams for your project, as outlined in the project team organizational chart below:





# PROJECT TEAM

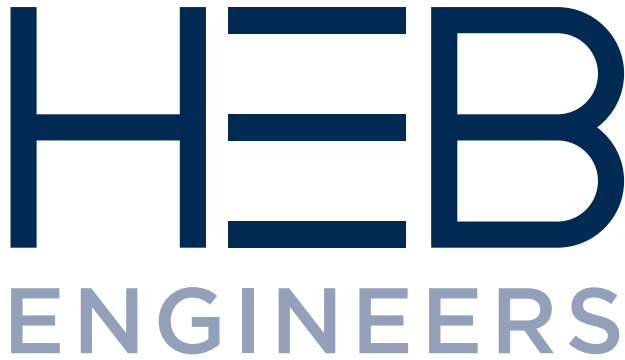


LPA CERTIFIED  
 YEARS OF EXPERIENCE  
 YEARS AT HEB ENGINEERS, INC.  
 TECHNICIAN INSPECTOR  
 TECHNICIAN INSPECTOR - LEVEL I  
 ENGINEER INSPECTOR - LEVEL I  
 ENGINEER INSPECTOR - LEVEL II  
 ENGINEER INSPECTOR - LEVEL III  
 PROJECT MANAGER - LEVEL I  
 PROJECT MANAGER - LEVEL II  
 ENVIRONMENTAL INSPECTOR  
 NH LICENSED PROFESSIONAL ENGINEER  
 QUALITY CONTROL  
 CESSWI CERTIFIED  
 CPESC CERTIFIED  
 NETTCP CERTIFIED

## CONSTRUCTION ENGINEERING & INSPECTION SERVICES IN SUPPORT OF LPA PROJECTS

| KEY PERSONNEL            | PROJECT ROLE                          | LPA CERTIFIED | YEARS OF EXPERIENCE | YEARS AT HEB ENGINEERS, INC. | TECHNICIAN INSPECTOR | TECHNICIAN INSPECTOR - LEVEL I | ENGINEER INSPECTOR - LEVEL I | ENGINEER INSPECTOR - LEVEL II | ENGINEER INSPECTOR - LEVEL III | PROJECT MANAGER - LEVEL I | PROJECT MANAGER - LEVEL II | ENVIRONMENTAL INSPECTOR | NH LICENSED PROFESSIONAL ENGINEER | QUALITY CONTROL | CESSWI CERTIFIED | CPESC CERTIFIED | NETTCP CERTIFIED |
|--------------------------|---------------------------------------|---------------|---------------------|------------------------------|----------------------|--------------------------------|------------------------------|-------------------------------|--------------------------------|---------------------------|----------------------------|-------------------------|-----------------------------------|-----------------|------------------|-----------------|------------------|
| Jay Poulin, PE           | Principal-In-Charge / Quality Control | X             | 25                  | 20                           |                      |                                |                              |                               |                                |                           |                            | X                       | X                                 |                 |                  |                 |                  |
| Joshua McAllister, PE    | Project Manager                       | X             | 20                  | 19                           |                      |                                |                              | X                             | X                              | X                         |                            |                         |                                   |                 |                  | X               |                  |
| Christopher Fournier, PE | Project Manager                       | X             | 17                  | 17                           |                      |                                |                              | X                             |                                | X                         |                            |                         |                                   |                 |                  |                 |                  |
| Jordan Pike, PE          | Project Manager                       | X             | 15                  | 3                            |                      |                                |                              | X                             |                                | X                         |                            |                         |                                   |                 |                  |                 |                  |
| Eric Grenier, PE         | Engineer Inspector                    | X             | 16                  | 16                           |                      |                                | X                            |                               |                                | X                         |                            |                         |                                   |                 |                  |                 |                  |
| Jason Ross, PE           | Engineer Inspector                    | X             | 23                  | 23                           |                      |                                | X                            |                               |                                | X                         |                            |                         |                                   |                 |                  |                 |                  |
| Jonathan MacDougall, PE  | Engineer Inspector                    | X             | 14                  | 12                           |                      |                                |                              |                               | X                              |                           |                            | X                       |                                   |                 |                  |                 |                  |
| Aaron Lamar, EIT         | Engineer Inspector                    | X             | 3                   | 3                            |                      |                                | X                            |                               |                                |                           |                            | X                       |                                   |                 |                  |                 | X                |
| Kevin Hamlin             | Technician Inspector                  | X             | 20                  | 9                            |                      | X                              |                              |                               |                                |                           |                            | X                       |                                   |                 |                  |                 |                  |
| Scott Cook               | Technician Inspector                  | X             | 3                   | 1                            |                      | X                              |                              |                               |                                |                           |                            |                         |                                   |                 |                  |                 | X                |
| Tucker Gordon, CWS       | Environmental Inspector               | X             | 5                   | 5                            | X                    |                                |                              |                               |                                |                           |                            | X                       |                                   |                 |                  |                 |                  |





## ***HEB Engineers, Inc.***

**PRIME CONSULTANT**

**HEB Engineers, Inc.** was founded in 1974 with a commitment to providing quality engineering and surveying services to the Mount Washington Valley. Throughout the years, HEB has grown steadily into a diversified consulting firm with a continued commitment to serving our community and people throughout New Hampshire and western Maine. As an employee-owned firm, this commitment flourishes today as we deliver on our core purpose of **empowering our people to positively impact our clients and communities**. Today's well-established civil, structural, and surveying teams are each led by experienced professionals licensed in their various disciplines. We take pride in our reputation and proven ability to deliver high-quality and cost-effective solutions. HEB offers a full range of civil, structural, and surveying services, with offices in North Conway, NH, and Bridgton, ME, to government, commercial, and industrial entities, as well as architects, developers, and individuals.



## ***SW Cole***

**SUB CONSULTANT | Material Testing**

Established in 1979 in Bangor, Maine, S. W. Cole Engineering, Inc. is a geotechnical engineering, geo-environmental consulting and construction materials testing firm serving private and public-sector clientele across New England from eight offices in Maine, New Hampshire, and Vermont. Our team of engineers, scientists, and technicians provide services on more than 1,800 projects each year. Our services include:

### **CONSTRUCTION MATERIALS TESTING & SPECIAL INSPECTIONS**

Soil, Concrete, Grout, Asphalt, Masonry, Steel, and Fireproofing. Our certified technicians provide field and laboratory testing for soil, concrete, masonry, steel, fireproofing, and asphalt construction materials.

### **GEOTECHNICAL ENGINEERING**

Subsurface Investigations, Foundations, Earthwork, and Pavement. Our licensed engineers provide sensible geotechnical solutions for foundations, earthwork, and pavements associated with building, site development, and infrastructure projects in New England.

### **GEO-ENVIRONMENTAL SERVICES**

Geology, Hydrogeology, Water Resources, and Blasting. Our geologists provide services from pre-construction evaluation of a project to exploring ways to protect the land and groundwater after its development.

# REFERENCES

We encourage you to contact any of these client references:

## PAMELA LAFLAMME | DIRECTOR OF STRATEGIC INITIATIVES

### City of Berlin

168 Main Street  
Berlin, NH 03570  
(603) 752-7532  
plaflamme@berlinnh.gov

| RECENT PROJECTS                            | PROJECT TYPE                         | PROJECT COMPLETION |
|--|--------------------------------------|--------------------|
| Berlin Regional Airport General Consultant | NHDOT AIP/SBG Projects               | On-going           |
| Mason Street Bridge #238/055               | US Congressionally Directed Spending | On-going           |
| Multi-Use Riverwalk                        | NHDOT TA Program                     | Completed 2023     |
| Hillside Avenue Bridge #232/066            | State Bridge Aid Program             | Completed 2019     |
| Route 16 Roadway Reconstruction            | Roadway/Infrastructure Upgrades      | Completed 2018     |
| Hutchins Street Reconstruction             | State Aid Highway Program            | Completed 2016     |
| Route 110 Reconstruction                   | Sewer Conflict Resolution            | Completed 2013     |
| 12th Street Bridge #256/087                | State Bridge Aid Program             | Completed 2011     |

## WESLEY ANDERSON, PE | DIRECTOR OF PUBLIC WORKS

### City of Laconia

45 Beacon Street East  
Laconia, NH 03246  
(603) 528-6379  
wanderson@laconianh.gov

| RECENT PROJECTS                    | PROJECT TYPE                     | PROJECT COMPLETION |
|------------------------------------|----------------------------------|--------------------|
| Elm Street Pedestrian Improvements | NHDOT TA Program                 | On-going           |
| Centenary Avenue Bridge            | MOBRR                            | On-going           |
| Academy Street Bridge              | State Bridge Aid Program & MOBIL | On-going           |
| Court Street Bridge                | State Bridge Aid Program         | Completed 2022     |
| Bridge Management Plan             | Town-Wide Inventory & Mgmt. Plan | Completed 2019     |
| Downtown Riverwalk                 | Pathway & Pedestrian Bridge      | Completed 2019     |
| WOW Trail – Phase II               | Municipal Pathway                | Completed 2016     |
| WOW Trail – Phase I                | ARRA Funded Pathway              | Completed 2010     |

## PAUL DEGLIANGELI, PE | DEPUTY TOWN MANAGER

### Town of Conway

23 Main Street  
Conway, NH 03818  
(603) 447-3811  
pauld@conwaynh.org

| RECENT PROJECTS                      | PROJECT TYPE       | PROJECT COMPLETION |
|--------------------------------------|--------------------|--------------------|
| Conway Multi-Purpose Path - Phase II | US EDA Funding     | On-going           |
| Conway Multi-Purpose Path - Phase I  | NHDOT CMAQ Program | Completed 2023     |
| Conway Main Street Improvements      | NHDOT TA Program   | Completed 2022     |



# APPENDIX

LACONIA, NH  
LPA FUNDED | WOW TRAIL PHASE I & II



# PROJECT TEAM RESUMES



**Jay Poulin** PE

President

Mr. Poulin has been practicing as a consulting civil engineer for over 25 years and has been President of HEB Engineers since 2013. Over that time, he has developed a wide range of engineering expertise largely in the public infrastructure market. In addition to his President duties, Mr. Poulin leads the Business Development and Marketing activities and is responsible for HEB's client service initiatives. In 2008, he was invited to join HEB's ownership team and became a shareholder of the firm.

## SPECIALIZATION

- » Municipal Infrastructure Design
- » Pathway Planning & Design
- » Utility Planning & Design
- » Construction Administration

## AWARDS

'40 Under Forty' 2014  
NH Union Leader

## EXPERIENCE

HEB Engineers, Inc. // 2003 - Present  
President  
North Conway, NH

Gale Associates // 2002 - 2003  
Project Engineer  
Bedford, NH

## EDUCATION

BS Civil & Environmental Engineering  
Clarkson University // 1997

## LICENSURE

Professional Engineer  
NH, ME, MA

Licensed Designer of Subsurface Disposal  
Systems  
NH

## CERTIFICATION

NHDOT Local Public Agency  
MEDOT Local Project Assistance

## MEMBERSHIP

National Society of Professional Engineers (NSPE)

# PROJECT TEAM RESUMES



## **Joshua McAllister** PE, CPESC, MBA

**Vice President / Director of Civil Engineering**

Mr. McAllister has been practicing as a consulting civil engineer for over 20 years and has served as Vice President since 2013. He is responsible the management of HEB's Civil Engineering services and oversight of HEB's operations. His expertise includes municipal infrastructure, commercial development and hydraulic and hydrology studies and is a Certified Professional in Erosion and Sediment Control. In 2008, he was invited to join HEB's ownership team and became a shareholder of the firm.

### **SPECIALIZATION**

- » Roadway and Streetscape Planning & Design
- » Commercial Site Development & Master Planning
- » Municipal Plan Reviews & Construction Observations
- » Hydrologic & Hydraulic Analysis
- » Erosion & Sediment Control Planning
- » Construction Administration

### **AWARDS**

**NH's Top 200 Most Influential Business Leaders, 2021**

NH Business Review

**John Bruni Distinguished Young Leadership Award, 2019**

Mt. Washington Valley Economic Council

**'40 Under Forty', 2017**

NH Union Leader

**Steve Eastman Community Spirit Award, 2016**

Mt. Washington Valley Chamber of Commerce

### **EDUCATION**

**MBA**

Plymouth State University // 2010

**BS, Civil & Environmental Engineering**

Clarkson University // 2002

### **EXPERIENCE**

**HEB Engineers, Inc.** // 2004 - Present  
Senior Civil Engineer  
North Conway, NH

**Bohler Engineering** // 2002 - 2003  
Junior Civil Engineer  
Sterling, VA & Albany, NY

### **LICENSURE**

**Professional Engineer** // NH, ME, VT

### **CERTIFICATION**

**Certified Professional in Erosion & Sediment Control (CPESC)**

**NHDOT Local Public Agency**

**MEDOT Local Project Administration**

**Designing for Aquatic Organism Passage at Road-Stream Crossings**

USDA Forest Service Training

### **MEMBERSHIP**

**American Society of Civil Engineers (ASCE-NH)**

**International Erosion Control Association (IECA)**

New England Chapter Board

# PROJECT TEAM RESUMES



## **Christopher Fournier** PE, SE

**Vice President / Director of Structural Engineering**

Mr. Fournier has over 17 years of professional experience in structural engineering and has served as Vice President since 2013. At HEB, he is responsible for the management of HEB's Structural Engineering services and oversight of Business Development initiatives. Mr. Fournier has a wealth of specialized experience with assisting clients in securing and administering state and federal grant opportunities for the improvement of aging and flood-prone infrastructure. In 2011, he was invited to join HEB's ownership team and became a shareholder of the firm.

### **SPECIALIZATION**

- » Bridge Engineering
- » Bridge Inspection & Assessment
- » Bridge Replacement / Rehabilitation Design
- » Bridge Load Rating
- » Regulatory Documentation & Compliance
- » Agency Funding Coordination
- » Construction Administration

### **AWARDS**

- 'Top Young Professional' 2018  
Engineering News-Record New England
- 'Young Engineer of the Year' 2016  
New Hampshire Society  
of Professional Engineers
- 'Rising Star in Structural Engineering' 2013  
Structural Engineer Magazine
- 'Young Professional' 2013  
Structural Engineers Institute  
Congress Scholarship

### **EXPERIENCE**

HEB Engineers, Inc. // 2006 - Present  
Director of Structural Engineering  
North Conway, NH

### **EDUCATION**

- MS Structural Engineering, *summa cum laude*  
University of Maine // 2005
- BS Civil Engineering  
University of Maine // 2004

### **LICENSURE**

Professional Engineer // NH, ME, VT, MA, CT

### **CERTIFICATION**

- Structural Engineering Certification Board Certified
- NHDOT Local Public Agency
- MEDOT Local Project Administration
- Tower Climbing Safety and Rescue  
(OSHA - CFR 1910 and 1926)

### **MEMBERSHIP**

- Structural Engineers of NH (SENH), Past President
- American Society of Civil Engineers (ASCE & ASCE-NH)
- Structural Engineers Institute (SEI)
- American Council of Engineering Companies (ACEC)



# PROJECT TEAM RESUMES



**Jordan Pike** PE, PTOE  
Senior Civil Engineer

Mr. Pike brings with him over 15 years of transportation engineering experience and leads HEB's Transportation services. He started his career with the Connecticut Department of Transportation and was later promoted to a Project Engineer in the State Design unit where he led a team of engineers delivering highway safety projects. His expertise includes roundabouts and he was an active member for the CT Roundabout Committee where he helped draft updated design guidance. Mr. Pike joined HEB in 2021 after relocating to the White Mountains where he continues his advocacy for safe transportation corridors for all users.

## SPECIALIZATION

- » Transportation Planning
- » Road Safety Audits
- » Intersection & Roundabout Design
- » Roadway Design
- » Signing and Pavement Marking Design
- » Capacity Analysis
- » Multi-Use Trails

## EXPERIENCE

**HEB Engineers, Inc.** // 2021 - Present  
Senior Civil Engineer  
North Conway, NH

**Connecticut DOT** // 2008 - 2021  
Project Engineer | 2014-2021  
Staff Engineer | 2008-2014  
Newington, CT

## EDUCATION

**BS, Civil Engineering**  
University of Hartford // 2008

## LICENSURE

Professional Engineer // NH, ME, CT

## CERTIFICATION

NHDOT Local Public Agency

## CIVIC INVOLVEMENT

**University of New Hampshire**  
2022 Guest Lecturer on Transportation Engineering

**Mentor for College Seniors 2014 - 2023**

- 1 year University of New Hampshire
- 4 years University of Connecticut
- 6 years University of Hartford

**New Hampshire Municipal Association**

- 2023 Stepping Up for Local Road Safety, Webinar
- 2023 Town & City Magazine: *Caution, Safer Roads Ahead!*

**Institute of Transportation Engineers**

- 2022 Roundabout Guidance Database, Webinar
- 2019 Northeast ITE Conference, Presenter

# PROJECT TEAM RESUMES



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

#### MANCHESTER AREA OFFICE

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 50 New Hampshire Department of Transportation (NH DOT) Local Public Agency (LPA) projects since 2009. He has a strong understanding of the NH DOT 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.

Andrew also has extensive experience on projects involving airports, municipal buildings, corrections facilities, and retail facilities.

#### Project Experience:

**Westville Road Bridge Over Little River, Plaistow, NH:** Andrew served as project manager on this bridge reconstruction. Andrew was responsible for site observations, field testing, and laboratory testing of both soils and concrete.

**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.

**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.



# APPLICABLE WORK EXPERIENCE | SBA



## Clark Pond Road Bridge

**Location** Haverhill, NH

**Owner** Town of Haverhill

The Clark Pond Road Bridge, which consisted of a 9-foot diameter sliplined culvert, was damaged and subsequently closed as a result of severe storms in October 2017. Shortly thereafter, HEB began working with the Town of Haverhill to procure and utilize FEMA Public Assistance Hazard Mitigation and NHDOT State Bridge Aid funding. In addition, HEB recognized the opportunity to complement dam removal and fish passage restoration work upstream by working with the Connecticut River Conservancy to incorporate additional stream restoration components.

While assisting the Town in its generation of funding for the project, HEB began existing-features analysis including topographic survey, geotechnical investigations, hydrologic/hydraulic assessment, and an engineering study. This information provided the Town with valuable decision-making criteria such as project cost, complexity, and permitting considerations for multiple culvert replacement alternatives. Design was then carried out for a successful NHDES Wetlands Permit application.

With funding received, and design and permitting complete, HEB produced necessary construction documents and also assisted with the public bidding process. Construction of the new Clark Pond Road Bridge was completed in the fall of 2020. HEB Engineers provided Construction Administration services to ensure quality implementation of the project documents. Ultimately, the Town's share of the project was 5% after the federal and state reimbursements (*see Photo below*).

## Loon Mountain Bridge

**Location** Lincoln, NH

**Owner** Town of Lincoln

Flooding due to Tropical Storm Irene caused the East Branch of the Pemigewasset River to critically erode the Loon Mountain Bridge's north bank abutment, ultimately leading to a partial collapse of the first span in the early morning of August 29, 2011. Working with Town officials, NHDOT staff, and the Governor's office, HEB assisted in preparing an emergency repair plan. A temporary pedestrian bridge was in place in time for the popular Highland Games two weeks after the storm, and a temporary Acrow bridge was constructed to allow vehicular traffic access to Loon Mountain until a permanent solution could be completed. The permanent solution includes multiple bank stabilization techniques coupled with the construction of a new bridge. The new three-lane bridge is 290-feet long with abutments which are secured via micropiles driven down to bedrock to protect against scour. The intersection at the entrance of the bridge was redesigned to improve traffic flow to the popular Loon Mountain Resort. Construction of the replacement bridge began in 2015 and the bridge was officially opened to vehicular traffic in the summer of 2016 (*see Photo above*).



# APPLICABLE WORK EXPERIENCE | SBA

## Spring Road Bridge

**Location** Gorham, NH  
**Owner** Town of Gorham

The Town of Gorham sought HEB's assistance in securing funding for this repetitively damaged crossing. HEB first, prepared a Benefit-Cost Analysis to confirm the feasibility of the project for the Town's FEMA Hazard Mitigation Grant Program (HMGP) application submission. The Town was awarded the HMGP grant and the initial intent of the project was to replace the existing culvert with a three-sided concrete rigid frame. However, during this process HEB discovered the crossing could be considered a bridge and eligible for the NHDOT State Bridge Aid (SBA) program. At that point, we assisted in modifying the project criteria to meet both funding agency requirements. An Engineering Study was prepared reviewing options for the new bridge, which provides access to over 20 residences on the dead-end road. Ultimately, the recommended design was a new bridge with a span length of 12 feet and a separate 6-foot high pipe arch culvert. The bridge is aligned with Mount Crescent Brook and the pipe arch culvert is aligned with the tributary which moved the convergence of Mount Crescent Brook downstream of the Spring Road crossing and allowed for the natural alignment of both Mount Crescent Brook and the tributary. HEB prepared construction and bidding documents and assisted the Town through the public bidding process. Lee T. Corrigan, LLC was the selected Contractor and HEB provided construction administration services within the NHDOT SBA Program. In order to provide continuing access to the families living on Spring Road, a temporary bridge was used during construction. Construction began in the summer of 2018 and opened to the public that fall. The project was completed in 2019.

## Covered Bridge Road Bridge

**Location** Thornton, NH  
**Owner** Town of Thornton

HEB was engaged by the Town of Thornton to provide engineering and surveying services for a new 42-foot single span two-lane bridge comprised of precast concrete voided slab beams and cast-in-place concrete abutments with 400 feet of approach roadway reconstruction on Covered Bridge Road over Mill Brook. Beginning in 2012, following damage from Tropical Storm Irene, HEB provided pre-design survey and geotechnical investigations, preliminary design and permitting, preparation of final design and construction documents, bidding assistance, and construction observation services within the NHDOT State Bridge Aid Program. Construction of the new bridge replaced the previous faux Covered Bridge which was partially destroyed during a 2017 storm event. The new two-lane bridge was constructed by Neil H. Daniels, Inc. of Ascutney, VT. and was completed in May 2019 (*see Photo below*).





# APPLICABLE WORK EXPERIENCE | SBA



## River Street Bridge

**Location** Bartlett, NH

**Owner** Town of Bartlett

The River Street Bridge in Bartlett, NH was damaged during Tropical Storm Irene in August 2011. HEB worked with the Town to provide temporary repairs in 2011. In 2013 HEB began providing engineering and surveying services to rehabilitate the existing two-lane, 132-foot-long bridge. The Engineering Study, which was submitted to NHDOT in 2013 explored five rehabilitation alternatives. In the end, HEB designed a relief culvert to provide a larger flow area and included scour protection and bank stabilization measures. The project included pre-design survey, geotechnical investigations, preliminary design and permitting, preparation of final design and construction documents, and construction observation services. In addition to State-Aid Bridge funds, additional funds were provided through a FEMA Hazard Mitigation Grant to cover 75% of the project costs. The construction was performed by Alvin. J. Coleman & Son, Inc. of Conway, NH, and was completed January 2016 (*see Photo below*).

## Indian Pond Road Bridge

**Location** Piermont, NH

**Owner** Town of Piermont

HEB was engaged by the Town of Piermont to replace the existing twin 4-foot diameter corrugated metal pipes which allowed Bean Brook to cross under Indian Pond Road. The culverts did not have adequate hydraulic capacity to pass larger storm events and caused a substantial constriction in Bean Brook, causing it dam up on the upstream side of the crossing until overtopping Indian Pond Road. HEB worked with the Town under the FEMA Hazard Mitigation Grant Program to design a crossing that meets the hydraulic needs of Bean Brook so Indian Pond Road does not overtop during large storm events. As the project progressed, it was clear that a bridge was the appropriate replacement and HEB designed and permitted a new two-lane bridge over the 14-foot channel under the State-Aid Bridge Program. HEB assisted the Town with bidding assistance and construction administration services and the bridge was constructed in the fall of 2015 (*see Photo above*).



# APPLICABLE WORK EXPERIENCE | SAH

## **Sandogardy Pond Road**

**Location** Northfield, NH

**Owner** Town of Northfield

HEB recently worked with the Town of Northfield for the Sandogardy Pond Road Reconstruction project in Northfield, NH. The project required detailed Existing-Features analysis in order for the Town and HEB to understand the direction the project would need to go to best meet the needs of the community. This analysis included survey, right-of-way determination, geotechnical investigation, and a detailed analysis of drainage systems. The project includes roadway reconstruction design, drainage improvements, and access improvements. The project also includes the replacement of the existing concrete pipe arch bridge at Cross Brook. HEB worked closely with project abutters and stakeholders to verify that information is available and feedback is considered. With permits in hand, final design was completed in January 2018. HEB provided the Town with bidding assistance services and construction administration services. The project was completed in the fall of 2020. This project is funded through the NHDOT State-Aid Highway Program (see *Photo below*).



## **Hutchins Street**

**Location** Berlin, NH

**Owner** City of Berlin

HEB was engaged by the City of Berlin to assist with the planning and design of much-needed improvements to a stretch of Hutchin Street between Bridge Street and Napert Street. This section of road, also known as the East Side Arterial, is the major truck route through the City and was built over a former bark landfill and had experienced significant settlement and deformation over the years. In addition, the City was interested in constructing sidewalks and improving the streetscape of this section of road due to the heavy pedestrian use as part of a loop connecting the Bridge Street and Mason Street bridges. HEB was also responsible for near full-time resident engineering during construction to meet Local Public Assistance (LPA) requirements. Beginning in 2009, HEB worked with the City providing existing-features analysis, soil testing, coordination with NHDOT and private landowners, rehabilitation design, and preparation of contract documents. The project includes roadway, sidewalk, and streetscape improvements including infrastructure for future lighting considerations. Due to funding constraints, the City was not able to remove all the unsuitable material so HEB utilized a bi-axial geo-grid to slow differential settlement and pavement reclamation to re-use as much existing material as possible. Construction was completed in the Summer of 2016 (see *Photo below*). (see *Photo above*).



# APPLICABLE WORK EXPERIENCE | TAP

## **W.O.W. Trail & Riverwalk**

**Location** Laconia, NH

**Owner** City of Laconia

HEB was selected by the City to work on Phases I and II of the Winnepesaukee-Opechee-Winnisquam (WOW) Trail. On both phases, HEB provided full engineering services including preliminary design, environmental permitting, pathway design, parking lot design, bidding assistance, and construction administration services. Phase I and II are approximately 2.4 miles in length and the majority of trail construction was conducted in the railroad corridor as part of the NHDOT Rail Trail initiative. Phase I of the project was funded through ARRA, locally administered through NHDOT, and construction was completed in 2010. Phase II followed in 2012 and construction was completed in 2016.

In addition, construction has wrapped up on an expansion of Laconia's Downtown Riverwalk which takes pedestrians along a section of the Winnepesaukee River through the heart of the City of Laconia. The project included construction of Riverwalk and associated amenities in two different locations along the Downtown District including City Hall and Rowe Court which totaled approximately 825-linear feet of Riverwalk construction. Amenities included a new 68-foot steel truss pedestrian bridge over Perley Canal along with reconstruction of the existing stacked-granite retaining wall along the river to allow the construction of new Riverwalk. A combination of interlocking concrete pavers and pavement create the Riverwalk surface and decorative steel fencing was installed along the river's edge. HEB started design on the project in 2016 and construction was completed in summer 2019 (*see Photo on Appendix page*).



## **Multi-Use Riverwalk**

**Location** Berlin, NH

**Owner** City of Berlin

Following the successful completion of the \$6M Route 16 Roadway Reconstruction through the heart of Berlin, HEB was selected under the QBS process by the City of Berlin for planning, design, permitting, and construction administration of a  $\pm$  \$1 million Riverwalk along the banks of the Androscoggin River. The project includes the construction of a 10-foot-wide, non-motorized, paved multi-modal Riverwalk between NH Route 16 and the western bank of the Androscoggin River in Berlin. The proposed Riverwalk will be approximately 3,200 linear feet in length and would connect active recreation and greenspace areas. Additional amenities and site upgrades are anticipated to be constructed as part of the project as well including benches, scenic overlooks, shade structures, interpretive signage, and landscaping improvements.

The project was funded by the federal Transportation Alternatives Program (TAP) and by a grant from the Northern Border Regional Commission (NBRC). The project was administered through the NHDOT LPA process and was completed the spring of 2023 (*see Photo above*).

# APPLICABLE WORK EXPERIENCE | CE&I



## Lake Winnisquam Scenic Trail

**Location** Belmont, NH

**Owner** Town of Belmont

The Town of Belmont selected HEB to bring their project back on course. After design was completed by another consultant, HEB was sought to provide Construction Administration services for Phase I of the Lake Winnisquam Scenic Trail. Ultimately, this led to the preparation of revised design drawings for approximately 2,950 linear feet of the trail, taking ADA accessibility and drainage impacts into consideration. The redesign ultimately saved the Town a substantial amount of funds. The 8,400 linear feet of Trail connects to the Laconia Winnepesaukee-Opechee-Winnisquam (WOW) Trail as part of the Granite State Rail Trail. The Project was funded through the NHDOT and was locally administered. HEB's Construction Administration activities included design revisions, on-site observations, reviewing Contractor Submittals, reviewing Payment Applications and Certified Payrolls, and preparing project closeout documentation. The project was completed in the summer of 2016 (see *Photo above*).

## MWVTA Multi-Use Pathway Phase I

**Location** Conway, NH

**Owner** Town of Conway

The Town of Conway selected HEB to complete construction administration for the first phase of the MWVTA Multi-use Pathway project. After design was completed by another consultant, HEB was sought to provide Construction Administration services for Phase I. HEB completed daily construction observations with a full-time Resident Engineer. HEB worked closely with the contractor and the Town of Conway to ensure that construction was completed in accordance with the plans, as well as identifying potential design changes that would benefit the project as a whole. The Pathway connects the southern portion of the North-South Road to Cranmore Mountain Resort, providing a scenic pathway for users around Pudding Pond. The project was administered through the **NHDOT LPA program**. HEB's Construction Administration activities included design revisions, on-site observations, reviewing contractor submittals, reviewing payment applications and certified payrolls, and preparing project closeout documentation. Construction was completed in the summer of 2023 by A.J. Coleman and Sons, Inc.

