



STATEMENT OF QUALIFICATIONS

Statewide On-Call Preliminary Engineering

Prequalified List of Consultants for Locally
Administered Local Public Agency (LPA)
Qualifications-Based Selection Contracts

December 20, 2024





December 20, 2024

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

RE: Statewide On-Call Preliminary Engineering Prequalified List of Consultants for Locally Administered Local Public Agency (LPA) Qualifications-Based Selection Contracts

Dear Mr. Reynolds,

HDR Engineering, Inc (HDR) is pleased to submit this Letter of Interest and updated prequalification package for NHDOT's Local Public Agency (LPA) program and roster. Through our collective experience of working with municipal and state partners in New England, we have developed significant expertise in the planning and delivery of locally administered projects, funded both locally and with state and/or federal funds.

HDR is a full-service civil/transportation, structural, environmental and municipal services planning and engineering firm with over 13,000 employee-owners working for public and private clients worldwide. Regionally we have served NHDOT for over 15 years and in 2015 opened our Bedford New Hampshire office to more effectively serve our New Hampshire clients. Since then we have been able to expand both our services and local team. We are currently serving NHDOT and several local communities on a range of multi-modal transportation infrastructure projects, and our key staff are LPA Certified. Project Manager **Roch Larochelle, PE** will be supported by Deputy Project Manager **Audrey Beaulac, PE** and Senior Technical Advisor, **Keith Cota, PE** former NHDOT Chief Project Manager. Our team's experience includes Transportation Alternatives Program (TAP), Highway Safety Improvement Program (HSIP), Safe Routes to School (SRTS), and Congestion Mitigation & Air Quality (CMAQ), as well as traditional State Aid Highway (SAH) and State Bridge Aid (SBA) projects at both the program and project delivery level.

Specific types of assignments that we may complete under this LPA program include the following:

- Project Management, Public Outreach & Technical Writing
- Planning Level Corridor Studies
- Topographic Survey & Right of Way
- Highway Design/Traffic/Multi-Modal
- Geotechnical Evaluation and Analysis
- Cultural and Archeological Inventory
- Wetland and Surface Water Assessment
- Alternative Procurement & Delivery
- Hydrology/Hydraulics & Scour Design
- Bridge/Structural Design, Inspection & Load Rating
- Environmental Documents and Permitting
- Municipal Facilities & Utility Engineering

Our team is committed to supporting NHDOT and our municipal partners when and where needed and to appropriately scale our efforts to match assignment needs. We look forward to the opportunity to discuss this further with you and your staff.

Sincerely,

HDR Engineering, Inc.

Thomas Roach, PE
Vice President | Principal-in-Charge

Roch Larochelle, PE
Associate | Senior Project Manager

Project Understanding and Approach

HDR has a **comprehensive understanding** of NHDOT's LPA Manual and experience to successfully administer LPA projects. HDR continues to provide design and project development on a broad range of federal, state and locally funded multi-modal transportation projects within New Hampshire and New England. We understand the expectation of the LPA process, so there is no learning curve for us to navigate. HDR's experienced engineers, designers, and planners can work seamlessly with municipalities and the NHDOT to achieve successful project delivery. If needed, HDR has a vast number of national subject matter experts (ROW, rail, transit, hydrology, economics, etc.) to support the most complex LPA projects.

Our project management approach allows us to integrate the community needs and objectives through effective public involvement to foster community support while meeting the standard of design and environmental oversight. Each community inherently has its own decision-making process where HDR integrates the local process with the multifaceted LPA processes so design and construction approvals are successfully achieved on schedule and on budget.

Integral within the LPA manual, the development of a project is broken out into three phases: Engineering Study, Preliminary Design, and Final Design. Each phase has been developed to bring a sequence of signoffs/approvals through NHDOT so the LPA process is successfully administered.



HDR will focus on the following deliverables in each of the phases as follows:

Engineering Study

This early phase evaluates how the project is environmentally feasible to build given existing geometric and budgetary constraints with identification of cultural and natural resources. This initial phase focuses on data collection: existing physical conditions (survey), safety and traffic data, and environmental/cultural/historic resources. With this information, the first "listening session" informational meeting is held to obtain local property owner and community input on what they see the project issues are. From this critical "local concerns" meeting, we evaluate alternatives and prepare an Engineering Study Report with cost estimates that identifies the Proposed Action with an assessment of environmental impacts with input through NHDOT's cultural and natural agency coordination meetings. The presentation of the approved Engineering Study Report will then be brought to a second public informational meeting for feedback.

Preliminary Design

This phase refines the proposed action from the Engineering Study to support the environmental sign-off and refines the preferred layout into a more detailed design plan for property and utility impacts, incorporation of project commitments, identification of environmental permitting and refinement of the project estimate. The preliminary design process may include an additional public informational meeting or, if needed, a formal public "necessity" hearing that is dependent upon the level of property impacts and necessary acquisitions. The intent of this phase is the completion of the required environmental documentation and approval. Upon success of the public hearing and the successful sign-off on the environmental document, the project then advances into Final Design.

Final Design/PS&E

The Preliminary Design is developed into final contract plans, ROW acquisition plans and contract documents. With the development of the ROW plans, ROW acquisition, if needed, can officially begin for clearance of ROW certificate. Project permits needed are obtained and utility coordination completed.

Once all project elements are completed include but not limited to, final contract documents, ROW and utility certificate and all necessary permits, the project will seek authorization through NHDOT to advertise. After bids are opened, each contractor bid is analyzed and recommendation is prepared and processed for approval by NHDOT to award.

Capabilities and Experience

HDR's project approach is further outlined below for highway design, bridge design, utility design, LPA experience for the successful management and development of LPA projects. HDR has the expertise to manage road, bridge and traffic, cultural resources and environmental oversight, geotechnical engineering, utility engineering, stormwater design, rail design, and ROW acquisitions. We also have established subconsultant relationships to undertake ground surveying, ROW monumentation and other unique project elements that may be required. Key elements of our approach includes:

Highway Design

Our team has extensive experience with highway/multimodal designs within New Hampshire and New England. We are currently providing project management/engineering for the Cities of Concord and Manchester through the State Bridge Aid and LPA programs. Our highway design work includes roadway reconstruction/rehabilitation; intersection and signal improvements/realignments; traffic control development; technical report; utility coordination; sidewalk and pedestrian crossings; stormwater management and drainage design; ADA compliance audits/upgrades; and multi-use path/recreation trail construction/rehabilitation. Through our work with the NHDOT, HDR has built an excellent working knowledge of the process requirements for NHDOT/LPA design and has a full understanding of the design manuals and documents requirements to meet project success.

HDR has expertise in all design elements and will be teaming with Doucet Survey, LLC for survey and ROW monumentation.

Bridge Design

Municipal and state bridge projects remain a significant part of HDR's practice. Within the Bedford office, we have a team of structural design engineers with experience in bridge inspection, load ratings, evaluation of structure alternatives, bridge maintenance and preservation, rehabilitation and replacement of single and multi-span structures, pedestrian bridges, hydraulic analysis/studies, scour design or substructure protection and renovation of historic bridges. Within our local and regional offices, our staff has the capabilities to perform hydrologic and hydraulic analysis and studies for projects. HDR excels in experience with a variety of bridge projects through local government sponsored programs (like State Bridge Aid) and more complex bridge projects involving major vehicular, rail and pedestrian corridors.

Utility Design

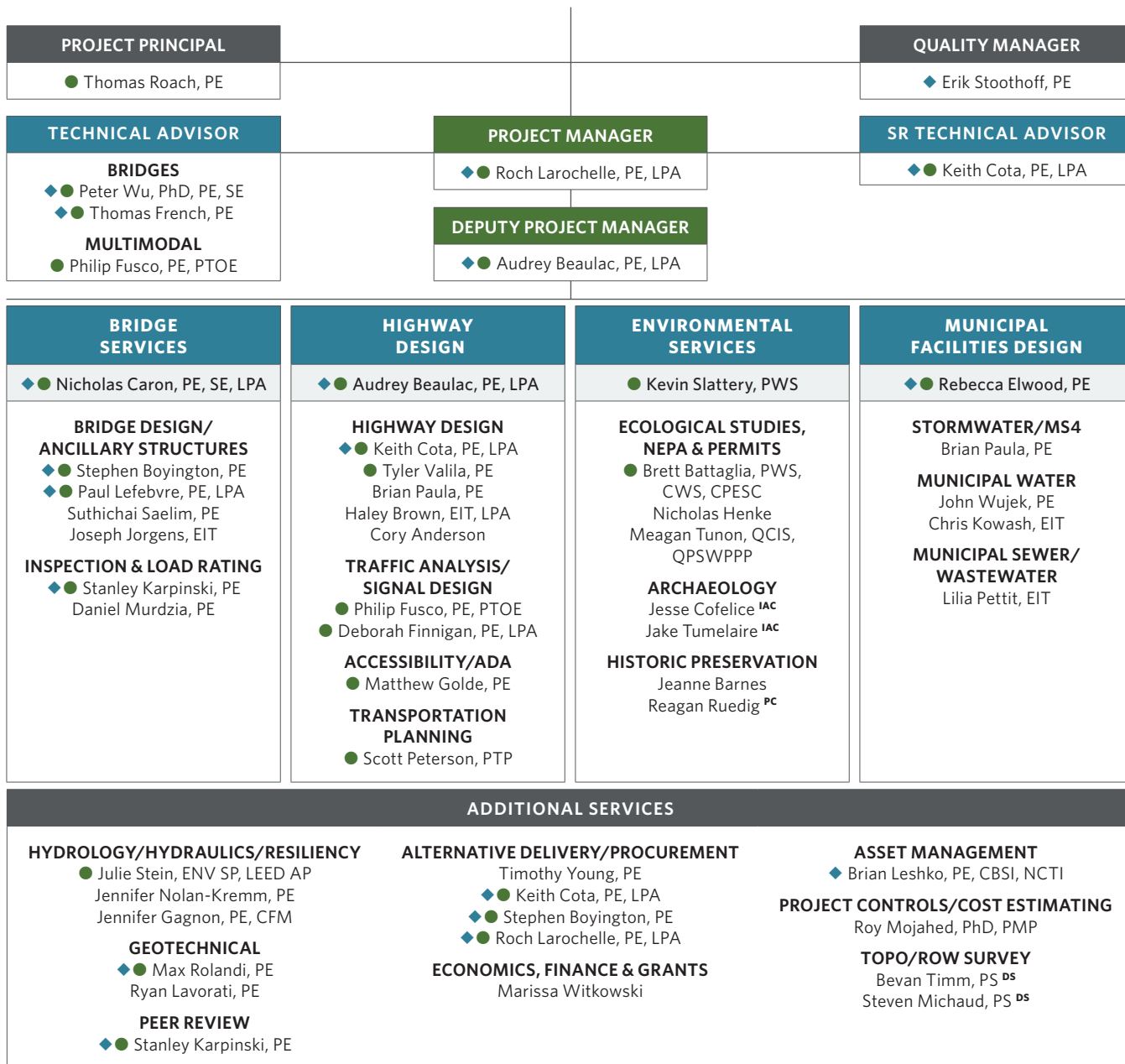
As part of the development of local government projects within communities that provide municipal services such as potable water, wastewater collection, and stormwater services in addition to aerial facilities for power and communications, utility conflicts are likely to occur. These publicly and privately owned facilities will oftentimes require relocation as part of a project and need to be designed in compliance with the NHDOT's Utility Accommodations Manual (UAM). This process requires the utility owner to be responsible for design and construction of required modifications to their facilities in advance of the larger construction project and provides reimbursement for costs incurred for both the design and construction. The UAM also allows for utility owners to invest in upgrades to its impacted utilities within the project by allowing for partial reimbursement in accordance with statutory law (RSA 228:22). This process is complex and relies on a design that minimizes impacts. HDR has experienced distribution and collection system design engineers, led by **Rebecca Elwood, PE** to assist the municipality through the breadth of regulation to provide a design for these impacted municipal systems to meet the UAM criteria, while meeting any upgrade requirements by the utilities.

LPA Experience

HDR has a breadth of LPA experience within New Hampshire, Massachusetts and Maine which are championing through construction. We have staff members who are LPA certified with NHDOT, providing us the depth and breadth to administer projects successfully, and we continue to build excellent and long-standing working relationships with the NHDOT project managers who oversee the project development and LPA program. Our Senior Technical Advisor, **Keith Cota, PE**, formerly NHDOT Chief Project Manager, has significant experience in managing and delivering successful projects. In addition, with our team's collective knowledge and understanding of the project development and LPA process, we offer an effective team that will bring success to the local community in support of the LPA administrative challenges and oversight. Our team has the capability to undertake permitting and environmental complexities to include permits for wetland, shoreland, Alteration of Terrain, and environmental coordination related to natural, cultural, and historic resources.



Organizational Chart



LEGEND

- ◆ Professional Engineer in NH
- Resume Included

SUBCONSULTANTS

- ^{DS} Doucet Survey, Inc. Survey/ROW Monumentation
- ^{IAC} Independent Archaeological Consulting (DBE) Archaeological Investigations
- ^{PC} Preservation Company (DBE) Historic Resources



Project Team

HIGHWAY AND BRIDGE DESIGN ENGINEERING SERVICES IN SUPPORT OF LPA PROJECTS

KEY PERSONNEL	PROJECT ROLE	YEARS OF EXPERIENCE	YEARS WITH FIRM	LPA CERTIFIED	PROJECT MANAGEMENT	HIGHWAY/PATH DESIGN & SAFETY	BRIDGE/STRUCTURAL DESIGN	ALT PROCUREMENT METHODS	CORRIDOR STUDY PLANNING	BRIDGE INSPECTION	BRIDGE LOAD RATING	HYDROLOGY/HYDRAULICS	ENVIRONMENTAL	TRAFFIC ANALYSIS & SIGNAL DESIGN	GEOTECHNICAL ENGINEER	SURVEYOR	PUBLIC INVOLVEMENT
Thomas Roach, PE	Principal in Charge	30	3		●	●		●	●		●						●
Roch Larochelle, PE, LPA	Project Manager, Alternative Delivery/ Procurement	37	11	●	●	●		●	●					●			●
Audrey Beaulac, PE, LPA	Deputy Project Manager, Highway Design Lead	21	2	●	●	●		●	●								●
Keith Cota, PE, LPA	Sr. Technical Advisor, Highway Design, Alternative Delivery/Procurement	46	3	●	●	●		●	●					●			●
Peter Wu, PhD, PE, SE	Technical Advisor (Bridges)	28	2		●		●	●	●	●	●						●
Thomas French, PE	Technical Advisor (Bridges)	31	9		●	●	●	●		●	●	●					●
Philip Fusco, PE, PTOE	Technical Advisor (Multimodal), Traffic Analysis/ Signal Design	35	3		●	●		●	●			●		●			●
Nicholas Caron, PE, SE	Bridge Services Lead	17	6	●	●		●	●		●	●						●
Kevin Slattery, PWS	Environmental Services Lead	43	6		●			●	●				●				●
Rebecca Elwood, PE	Municipal Facilities Design Lead	21	10		●								●				●
Stephen Boyington, PE	Bridge Design/Ancillary Structures, Alternative Delivery/Procurement	33	5		●		●	●		●	●						
Paul Lefebvre, PE, LPA	Bridge Design/Ancillary Structures	14	8	●			●	●		●	●						
Suthichai Saelim, PE	Bridge Design/ Ancillary Structures	23	10				●	●		●	●						
Joseph Jorgens, EIT	Bridge Design/Ancillary Structures	4	2				●			●	●						
Stanley Karpinski, PE	Inspection & Load Rating, Peer Review	28	28		●		●	●		●	●						
Daniel Murdzia, PE	Inspection & Load Rating	14	12		●		●	●		●	●						●
Brian Paula, PE	Highway Design	14	3		●	●						●					●
Tyler Valila, PE	Highway Design	7	7		●	●			●					●			●
Cory Anderson	Highway Design	18	5			●											
Deborah Finnigan, PE	Traffic Analysis/Signal Design	35	2	●	●	●		●	●					●			●
Matthew Golde, PE	Accessibility/ADA	13	10		●	●											●
Scott Peterson, PTP	Transportation Planning	31	3		●	●			●					●			●
Brett Battaglia, PWS, CWS, CPESC	Ecological Studies, NEPA & Permits	26	23										●				
Nicholas Henke	Ecological Studies, NEPA & Permits	11	5		●			●	●				●				●



HIGHWAY AND BRIDGE DESIGN
ENGINEERING SERVICES IN SUPPORT
OF LPA PROJECTS

KEY PERSONNEL	PROJECT ROLE	YEARS OF EXPERIENCE	YEARS WITH FIRM	LPA CERTIFIED	PROJECT MANAGEMENT	HIGHWAY/PATH DESIGN & SAFETY	BRIDGE/STRUCTURAL DESIGN	ALT PROCUREMENT METHODS	CORRIDOR STUDY PLANNING	BRIDGE INSPECTION	BRIDGE LOAD RATING	HYDROLOGY/HYDRAULICS	ENVIRONMENTAL	TRAFFIC ANALYSIS & SIGNAL DESIGN	GEOTECHNICAL ENGINEER	SURVEYOR	PUBLIC INVOLVEMENT
Meagan Tunon, QCIS, QPSWPPP	Ecological Studies, NEPA & Permits	7	2										●				
Jesse Cofelice IAC	Archaeology	17	13										●				
Jeanne Barnes	Historic Preservation	19	13		●			●					●				●
Reagan Ruedig PC	Historic Preservation	17	14										●				
Brian Paula, PE	Stormwater/MS4	14	3														
John Wujek, PE	Municipal Water	33	1									●					
Chris Kowash, EIT	Municipal Water	6	2									●					
Lilia Pettit, EIT	Municipal Sewer/Wastewater	4	1									●					
Julie Stein, ENV SP, LEED AP	Hydrology/Hydraulics/Resiliency	19	11		●							●					●
Jennifer Gagnon, PE, CFM	Hydrology/Hydraulics/Resiliency	18	14		●							●					●
Max Rolandi, PhD, PE	Geotechnical	15	1		●										●		
Ryan Lavorati, PE	Geotechnical	12	2												●		
Timothy Young, PE	Alternative Delivery/Procurement	31	5		●		●	●		●	●						●
Marissa Witkowski	Economics, Finance & Grants	18	17		●			●	●								●
Brian Leshko, PE, CBSI, NCTI	Asset Management	39	26				●			●	●						
Roy Mojahed, PhD, PMP	Project Controls/ Cost Estimating	24	5		●			●	●								
Bevan Timm, PS ^{DS}	Topo/ROW Survey	13	8														●
Steven Michaud, PS ^{DS}	Topo/ROW Survey	28	26														●



References

SUNAPEE 41300 NH Routes 11 and 103 over Sugar River

David Scott, PE

In-House Design Chief
New Hampshire Department of Transportation
603.271.2731
David.L.Scott@dot.nh.gov

Hampton 40797 Ocean Blvd (NH 1A)

Loretta Girard Doughty, PE

Program Administrator, Bureau of Highway Design
New Hampshire Department of Transportation
603.271.2731
loretta.doughty@dot.nh.gov

Loudon Rd/North Pembroke RD

Michael S. Bezanson, PE

City Engineer
City of Concord Community Development
Department Engineering Services
603.230.3614
mbezanson@concordnh.gov



Resumes



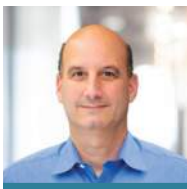
Thomas Roach, PE – Principal in Charge

Tom has over 30 years of experience in managing and designing transportation projects in New England and beyond. He has been involved in a variety of highway projects ranging from major and minor roadways, expressways, and interstate highways including major multi-level interchanges.

In addition to this highway design focus Tom has a deep understanding of the civil components of transit-oriented projects through his civil design and coordination experience with various rail agencies including the MBTA, Metro-North and Amtrak as a part of the interface between railroads and roadways. As part of Tom’s current role, he is responsible for supporting the transportation business in New England and he supervises the technical engineering as well as the quality of the deliverables.

RELEVANT EXPERIENCE:

- **City of Concord**, Loudon Road Bridge
- **City of Cambridge**, River Street Reconstruction
- **NHDOT**, Seabrook-Hampton Bridge Replacement (NH Route 1A)



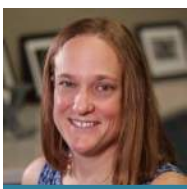
Roch Larochelle, PE, LPA – Project Manager

Roch is the Northern New England Section Manager for Civil Engineering in HDR’s NE Practice and has over 37 years of diverse technical and professional experience in all aspects of management and development of highway multi-modal transportation assignments. He is a native to the Manchester

East Side, has been a steadfast leader in the NH Engineering Community and has a long history of working on transportation and planning projects with the NDHOT and numerous municipalities on local, state and Federally funded (LPA) projects including CMAQ, TE/TAP, HSIP, SAH and SBA programs as well as traditional Ten-Year Plan projects.

RELEVANT EXPERIENCE:

- **City of Concord**, Loudon Road Bridge and Fort Eddy Road Study (SBA)
- **Town of Durham**, Morgan Way/US Route 4 Intersection Improvements (SAH)
- **City of Dover**, Woodman Park School Sidewalk Improvements (SRTS)
- **City of Manchester**, S. Willow Street/Weston Road Intersection Improvements (CMAQ)



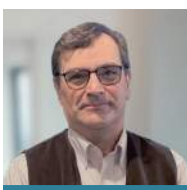
Audrey Beaulac, PE, LPA – Deputy Project Manager; Highway Design Lead

Audrey is a versatile and highly motivated senior highway engineer and project manager with over 21 years of experience. She leads her team through the design of highway projects from inception through delivery prioritizing open

communication with team members. She sets realistic and obtainable schedules to meet project deliverables and client expectations. With a focus in drainage design and stormwater treatment, she can also provide hydraulic and hydrologic analysis for pre and post development conditions and BMP designs.

RELEVANT EXPERIENCE:

- **NHDOT**, Exit 18/NH Route 120 Evaluation and Design | Lebanon, NH
- **City of Manchester**, South Willow & Weston Road Intersection Improvements (42881) | Manchester, NH
- **NHDOT**, Seabrook-Hampton Bridge Replacement (NH Route 1A) | Hampton, NH
- **NHDOT**, Improvements to Ocean Boulevard (NH 1A) | Hampton, NH



Keith Cota, PE, LPA – Senior Technical Advisor; Highway Design; Alternative Delivery/Procurement

Keith has 46 years of experience in the project management of federal and turnpike intermodal transportation infrastructure projects, alternative project delivery and procurement including policy development and program implementation.

Keith also has national experience in roadside safety through AASHTO Technical Committee on Roadside, TRB-AKD20 (formally AFB20) and NCHRP, which involved the development of national publications and roadside safety research studies.

RELEVANT EXPERIENCE:

- **City of Manchester, NH**, S. Willow Street/Weston Road Intersection Improvements (CMAQ)
- **City of Concord, NH**, Loudon Road Bridge/Merrimack River, Rehab #163/111
- **City of Portsmouth, NH**, US Rte. 1 Memorial Bridge Replacement (TE/TAP)



Peter Wu, PhD, PE, SE – Bridge Technical Advisor

Dr. Wu has over 28 years of experience in bridge/structural engineering design, construction and project management. His experience and expertise includes bridge design and construction, management of transportation projects, seismic analysis, design and retrofit for bridges, accelerated bridge

construction, railway track and structure design, non-linear and FEM analysis of complicated structures.

RELEVANT EXPERIENCE:

- **MBTA**, PMCM Services for the Red/Orange Line Transformation Program
- **MBTA**, Worcester Line Track and Station Accessibility Improvements | Framingham, Natick & Weston, MA
- **MassDOT**, #77866 Dennis/Yarmouth- Route 28 over Bass River Bridge Replacement Project



Thomas French, PE – Bridge Technical Advisor

Tom has spent his career working both directly for the NHDOT, getting a solid foundation in Department standards and public outreach along the way, and with NHDOT in several capacities, including helping the Department execute an innovative deck replacement project over the course of

just one weekend on I-93 over Loudon Road, one of the state’s busiest lanes of highway.

RELEVANT EXPERIENCE:

- **NHDOT**, Statewide On-Call Bridge Design Services
- **City of Concord**, Storrs Street Extension (North)
- **City of Concord**, North Pembroke Road, Bridge Replacement



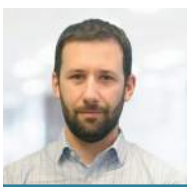
Phil Fusco, PE, PTOE – Multimodal Technical Advisor; Traffic Analysis/Signal Design

Phil has 35 years of experience in the design, construction, and management of multifaceted projects throughout New England. Phil has managed numerous complex roadway and multimodal transportation systems from pavement

preservation on local roadways to the design of complex system interchanges and transit corridors. Phil currently manages the New England highway civil, traffic and planning team and works with various project teams to provide high level technical expertise to develop the most efficient comprehensive designs that incorporate a broad range of transportation elements for complex designs.

RELEVANT EXPERIENCE:

- **NHDOT**, Ocean Boulevard US Route 1A | Hampton, NH
- **City of Manchester**, NH, South Willow Street NH Route 28
- **City of Worcester**, MassDOT District 3, Corridor Improvements to Chandler Street, Route 122 | Worcester, MA
- **RIPTA**, Downtown Transit Connector (DTC) | Downtown Providence, RI



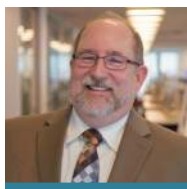
Nick Caron, PE, SE, LPA – Bridge Services Lead

Nick is a bridge engineer in HDR’s Bedford, NH, office. His experience includes concrete design, prestressed concrete design, steel design, seismic design considerations, bridge inspection, bridge load rating, right of way impact mitigation, plan development, contract documents development,

construction inspection, and project management.

RELEVANT EXPERIENCE:

- **City of Concord, NH**, Loudon Road Bridge, Br. No. 163/111 Design Phase Services
- **City of Concord**, NH, North Pembroke Road Bridge Replacement, Br. No. 183/156 Design and Construction Phase Services
- **NHDOT**, Seabrook-Hampton Bridge Replacement (NH Route 1A)



Kevin Slattery, PWS – Environmental Services Lead

Kevin is the New England Section Manager for Transportation Environmental Services in HDR’s Portland, ME office. He is an environmental planner, ecologist and project manager experienced with inland and coastal environments with over 43 years experience. He works directly with state/federal

permitting and resource agencies and will coordinate environmental documents, natural and cultural resource studies and permitting on any assignment.

RELEVANT EXPERIENCE:

- **City of Concord, NH**, Loudon Road over Merrimack River
- **City of Concord, NH**, North Pembroke Road Bridge Replacement
- **NHDOT**, Memorial Bridge Replacement (Design-build)
- **Town of Medfield, MA**, Rehabilitation of Green Street



Rebecca Elwood, PE – Municipal Facilities Lead

Rebecca is a project manager and process engineer with more than 21 years of wastewater industry experience. During this time, Rebecca has been responsible for planning, designing, and management of a variety of water and wastewater treatment projects that have touched a wide array of plant

processes. Rebecca also has extensive experience with deep tunnel pump station design, including design leadership on the \$100M LMRDP Dewatering Pump Station for the Metropolitan St. Louis Sewer District. Additionally, Rebecca has experience with state-of-the-art design technologies such as BIM and its integration with LiDAR.

RELEVANT EXPERIENCE:

- **Metropolitan St. Louis Sewer District**, General Services Agreement - Facility and Sewer Design
- **NYCDEP, Upgrade of Mersereau Avenue**, Mayflower Avenue, and Richmond Avenue Pumping Stations
- **Metropolitan St. Louis Sewer District**, Grand Glaize WWTF Building, Screen, Tank and Switchgear Repairs



Stephen Boyington, PE – Bridge Design/Ancillary Structures

Steve is a senior bridge/structural engineer in HDR’s Bedford, NH, office. He has performed design and/or analysis of precast/prestressed concrete deck beam and girder bridges, single- and multiple-span steel girder bridges, steel truss bridges and precast concrete arch bridges. He is experienced

in preparation of documents for alternative delivery projects and has worked as a member of design teams on design-build and PPP projects.

RELEVANT EXPERIENCE:

- **NHDOT**, Interstate Exit 4A Project
- **VTrans**, On-call Services Railroad Bridge Inspection and Load Rating Analysis
- **NHDOT**, Walpole 14540U Project (Replacement of Bridge 079/067)



Paul Lefebvre, PE, LPA – Bridge Design/Ancillary Structures

Paul is a Structural Engineer has 14 years of experience in the design and load rating of bridges. His experience includes the design detailing review load rating and project management of conventionally-reinforced precast concrete structures including box culverts rigid frames arches retaining walls

foundations vaults cisterns and manholes. His responsibilities at the Bedford office include the structural design detailing and load rating of bridges.

RELEVANT EXPERIENCE:

- **City of Concord, NH**, North Pembroke Road Bridge Replacement, Br. No. 183/156 Design Phase Services
- **NHDOT**, Seabrook-Hampton Bridge Replacement, Br. No. 235/025
- **NHDOT**, Preservation of (4) Bridges on NH Route 11 in Sunapee, NH



Stanley Karpinski, PE – Inspection & Load Rating; Peer Review

Stanley is experienced in the inspection of structures including tunnels and bridges. He has performed load ratings concurrent with inspections using programs including AASHTO. His design experience includes bridge rehabilitation and widening

projects and he has completed inspections on complex bridges including movable, swing-span, single and double leaf bascule and vertical lift structures.

RELEVANT EXPERIENCE:

- **NHDOT**, Sarah Long and Memorial Bridges
- **MassDOT**, Non-NBIS Bridge Inspections
- **City of Charlotte**, Charlotte Bridge Inspections NQ
- **Nebraska Department of Roads, NE**, Fracture Critical Bridge Inspection



Tyler Valila, PE – Highway Design

Tyler joins the Bedford office as a geometric subject matter expert, bringing over 7 years of experience in technical analysis and supporting assistance on a variety of projects including mixed-use trails, alternative intersections, roadway design, and complete streets. He is skilled at concept

development, cost estimating, and traffic analysis. Tyler has over a year of experience in Florida as a Local Agency Programs (LAP) Project Manager with District 5 where he assisted local agencies in programming, project schedules, funding, deliverable reviews, application reviews, and more. With his background in traffic, final design, and LAP Project Management, Tyler understands the distinct needs of projects from concept through construction.

RELEVANT EXPERIENCE:

- **Florida Department of Transportation (FDOT)**, District 5 General Engineering Consultant (GEC)
- **Seminole County**, Rolling Hills Phase 1 Roadway Design
- **City of Altamonte Springs**, Spring Oaks Blvd Study and Design
- **City of Orlando**, Edgewater Drive Complete Streets Design



Debbie Finnigan, PE, LPA – Traffic Analysis/Signal Design

Deborah is a project manager for traffic engineering services in HDR’s Boston, Massachusetts office serving clients throughout New England. She has 35 years of experience as a municipal engineer, and planning, transportation systems,

traffic engineering, and construction management for consultants. Her expertise includes traffic planning and engineering studies, site plan review, roadway safety, project development, traffic operations, and safety studies, traffic signal engineering, roadway design, and maintenance and protection of traffic.

RELEVANT EXPERIENCE:

- **MassDOT**, Route 43 Complete Streets Improvements | Williamstown, MA
- **NHDOT**, Improvements to Ocean Boulevard (NH 1A) | Hampton, NH
- **City of Cambridge**, River Street Reconstruction Project | Cambridge, MA
- **MBTA**, Plan for Accessible Transit Infrastructure (PATI), Boston, MA



Matthew Golde, PE – Accessibility/ADA

Matt brings 13 years of experience in transportation and land development. He is responsible for project management, roadway and drainage design, traffic engineering, and the design of ADA compliant pedestrian facilities. He has led project teams, produced plan sets for project submittals, as

well as performed quality control tasks. He also has a strong knowledge in the fields of CAD and GIS. Matt also chairs our National Accessibility Team and has the opportunity to tap into this team for standards being used across the country.

RELEVANT EXPERIENCE:

- **MassDOT**, CRC25
- **MassDOT**, ADA Retrofits at Various Locations
- **MassDOT**, Springfield Underpass



Scott Peterson, PTP – Transportation Planning

Scott has 31 years of experience in travel demand modeling and multimodal planning. His multimodal experience has supported numerous, freight, highway, bicycle, pedestrian, aviation, and transit planning studies. As a transportation planner, he has overseen development of travel demand

forecasts, air quality inventories, environmental justice analysis, land use studies, and economic impact assessments. Prior to joining HDR he was the Director of Technical Services for the Boston Region MPO overseeing MPO planning efforts, corridor studies, CMAQ Grants, the freight program, NEPA projects, state environmental submissions, FTA New Starts applications, and public outreach to stakeholders.

RELEVANT EXPERIENCE:

- **Boston Region MPO**, Long Range Transportation Plans
- **Boston Region MPO**, 3-C Planning Conformity Analysis and CMAQ Grants
- **MassDOT**, Allston I-90 Multimodal Study
- **MassDOT**, Subregional Transportation Analysis for the Lower Mystic Working Group



Brett Battaglia, PWS, CWS, CPESC – Ecological Studies, NEPA & Permits

Brett has over 26 years of professional experience specializing in wetlands; environmental permitting and agency consultation; wildlife and wetlands sciences; land use management and planning; threatened and endangered

species surveys and habitat assessments; environmental impact review; and construction inspections.

RELEVANT EXPERIENCE:

- **NHDOT**, NH Route 32 over Martin Brook
- **City of Concord, NH**, North Pembroke Road Bridge Replacement Project
- **Maine Turnpike Authority**, Exit 45 Interchange Reconfiguration Project
- **Maine Turnpike Authority**, Maine Turnpike Widening Project



Julie Stein, ENV SP, LEED AP – Hydrology/Hydraulics/Resiliency

Julie is an urban planner specializing in water resources bringing over 19 years of experience in stormwater, watershed and drainage infrastructure planning. She focuses on alternatives evaluations and life-cycle assessments for

NPDES compliance, resiliency, risk based flood protection, and structural and nonstructural stormwater management design. Prior to joining us, Julie held the position of Director of the Office of Wet Weather Planning and Water Quality Policy for New York City Department of Environmental Protection (DEP).

RELEVANT EXPERIENCE:

- **NHDOT**, Ocean Boulevard – NH Route 1A
- **NYCDEP**, MS4 Stormwater Program
- **City of Newark**, MS4 Compliance Support Services



Max Rolandi, PhD, PE – Geotechnical

Dr. Rolandi is a geotechnical engineer with 15 years of experience working on transportation, water, residential/commercial, municipal and industrial projects. Dr. Rolandi’s experience includes geotechnical site characterization, geotechnical data analysis, geotechnical design of shallow and

deep foundations, ground improvement, support of excavation, earth retaining structures, slope stability, earthquake engineering, and engineering services during construction.

RELEVANT EXPERIENCE:

- **MBTA**, Green Line Extension, Cambridge, Somerville, Medford, MA, 2017
- **Town of Orange**, Orange, MA, Main Street Bridge Replacement
- **MassDOT**, General Edwards Bridge, Revere and Lynn, MA
- **MassDOT**, Whitmanville Road over Whitman River, Westminster, MA

Applicable Work Experience



PROJECT RELEVANCE

- Highway & Bridge Preliminary and Final Design
- Traffic control design
- Bridge rehabilitation and preservation
- Traffic analysis and signal design
- Drainage design and stormwater BMP selection
- Geometric layout and Interim interchange modifications
- Environmental documentation/permitting
- Technical writing
- Geotechnical Evaluation and Design
- Topographic survey & ROW layout
- Public involvement
- LPA/NHDOT coordination assistance

Loudon Road Bridge Rehabilitation City of Concord, NH

Concord, NH

HDR performed a preliminary design/type study and environmental screening for this planned bridge rehabilitation and is now moving forward with Final Design. The project involves extensive traffic and safety analysis to understand the preferred corridor cross-section, both across the bridge and on the approaches to the adjacent I-93 interchange. Based on the proximity and influence of the I-93 interchange, multiple lane configuration and traffic signal operational scenarios were developed to identify the preferred corridor multi-modal cross-section and intersection configurations. The Study and design is funded through the NHDOT State Bridge Aid (SBA) program and funded by FHWA through construction.



PROJECT RELEVANCE

- Highway preliminary design
- Bridge preliminary Design
- Planning level corridor study
- Design of roadway approach
- Traffic analysis and intersection design
- Technical writing
- Topographic survey
- ROW layout and plan development
- Public involvement

Storrs Street Northern Extension City of Concord, NH

Concord, NH

HDR completed a feasibility study and preliminary design of the Storrs Street northern extension in downtown Concord that will provide access to developable lands and enhance the connectivity for all modes between North Main Street/ Storrs Street and US Route 202/I-393. The corridor will serve as a key north-south link into the downtown core of Concord and reduce traffic demand along Main Street. The study also included stakeholder involvement and NHDOT Bureau of Rail and Transit coordination on a possible relocation/siding to facilitate the proposed roadway alignment and a land use assessment which involved coordination with the Planning Director.



PROJECT RELEVANCE

- Highway preliminary design
- Planning level corridor study
- Environmental Analysis
- Traffic analysis and intersection/roundabout design
- Technical writing
- Public involvement

Whitney Road Corridor Planning Evaluation City of Concord, NH

Concord, NH

HDR completed this corridor buildout study for the City of Concord to determine the highest potential value and best use of a tract of land for over 300 acres of multiple privately-owned parcels in Concord NH bounded by I-93, the Merrimack River, Hoit/Whitney Roads and Sewalls Falls Road. HDR also evaluated the anticipated program level costs and feasibility of constructing a new public roadway on new location from the intersection of Hoit/ Whitney Roads (in the vicinity of I-93 Exit 17) southerly to the intersection with Sewalls Falls Road for purposes of supporting potential future development along the conceptual corridor.



PROJECT RELEVANCE

- Bridge preliminary/final design
- Development of contract plans/documents
- Design of roadway approach, guardrail and superelevation design
- Environmental documentation/permitting
- Hydraulic calculations and analyses
- Geotechnical evaluations and analysis
- Topographic survey & ROW layout
- Public involvement

Replacement of North Pembroke Road Bridge City of Concord, NH

Concord, NH

HDR provided Engineering Study, Preliminary and Final Design, and Construction Phase Services to the City of Concord and the Town of Pembroke for this NHDOT State Bridge Aid Funded project. The Engineering Study evaluated rehabilitation or replacement options for the 3-span, 112' steel stringer-bridge.

The project was advertised for construction in May of 2021, and construction began in July. HDR provided office support and field support services during construction including shop drawing reviews, RFI responses, and site inspections. The project achieved substantial completion in November of 2021, and final completion in April 2022.



PROJECT RELEVANCE

- Highway preliminary/final design
- Traffic analysis, intersection and signal design
- Development of contract plans/documents
- Environmental documentation/permitting
- Hydraulic analysis and BMP selection
- Technical writing
- Topographic survey & ROW layout
- Public involvement
- LPA/NHDOT coordination assistance

Weston/South Willow (19-15 CMAQ) City of Manchester, NH

Manchester, NH

HDR is supporting the City of Manchester, NH for this project which received a grant approval through the Congestion Mitigation and Air Quality (CMAQ) Improvement Program for funding improvements to the Weston Road/South Willow Street intersection to address safety and operational issues and reduce delay/congestion. The project involves HDR assisting the city with Preliminary Design, Environmental Permitting, Final Design, Right-of-Way acquisition assistance as well as development of Contract Documents and Bidding Services for the design and construction of this important intersection. The scope of services included coordination with the City through the NHDOT in accordance with the Local Public Agency Manual for the Development of Projects (LPA).



PROJECT RELEVANCE

- Highway and Bridge preliminary design
- Sidewalk and shared use path designs
- Corridor Planning, Traffic analysis, intersection & signal design
- Hydraulic calculations, analyses and BMP selection
- Environmental documentation/permitting
- Technical writing
- Topographic survey & ROW layout
- Public involvement

Lebanon Exit 18 Interchange Evaluation and Design NHDOT

Lebanon, NH

HDR evaluated the Exit 18 interchange on Interstate 89 and a segment of NH Route 120 from the intersection of Hanover Street extending north to Etna Road. There are long queues on both the Exit 18 interchange ramps and the NH Route 120 corridor due to high traffic volumes during the morning and evening peak hours. HDR is developing two design alternatives that will improve safety and mobility of the interchange and the Route 120 corridor for all users.

HDR is currently finalizing conceptual layouts and interchange options including program costs along with an evaluation of impacts to environmental resources with a public meeting targeted in the Spring of 2024.



PROJECT RELEVANCE

- Highway preliminary design
- Sidewalk and shared use path analysis and design
- Traffic analysis, signal design and intersection layouts
- Planning level corridor study
- Environmental analysis and documentation
- Drainage Analysis and BMP Selection
- Topographic survey & ROW layout
- Public involvement
- LPA/NHDOT coordination assistance

Hampton Improvements to Ocean Boulevard (NH Route 1A)

NHDOT

Hampton, NH

HDR evaluated multimodal transportation alternatives for a 3.3 mile stretch of Ocean Boulevard. The project deviates from a traditional design approach, focusing on enhancing the safety and mobility of bicyclists and pedestrians while maintaining vehicular operations.

Project design efforts included modeling corridor and intersection modifications and alternatives that reflect the diverse stakeholder engagement process, road diet options, safety improvements to water quality treatment, parking configurations, integration of a bicycle facility, and improvement to the safety of pedestrian crossings with traffic signals and other treatments.



PROJECT RELEVANCE

- Highway & bridge preliminary/final design
- Development of contract plans/documents
- Bridge rehabilitation and preservation
- Environmental documentation/permitting
- Hydraulic calculations and analyses
- Technical writing
- Geotechnical evaluations and analysis
- Topographic survey & ROW layout
- Public involvement
- LPA/NHDOT coordination assistance

Sunapee Bridge Preservation

NHDOT

Sunapee, NH

HDR provided Bridge Design Services and Traffic Management Design for bridge preservation of four bridges in the Town of Sunapee. HDR performed a visual inspection of the bridges and approach roadways. As part of this inspection, HDR identified areas where repair and improvement were required. Design services included repairs to decks, copings, bridge and approach railings aimed at preserving these bridges and improving the roadway approaches. Traffic design services were provided for each of the bridge sites.



PROJECT RELEVANCE

- Shared use path & Pedestrian crossing design
- Bridge & Railroad preliminary/final design
- Development of contract plans/documents
- Environmental documentation/permitting
- Stormwater pump station design
- Technical writing
- Geotechnical evaluations and analysis
- Topographic survey & ROW layout
- Public involvement

North End Pedestrian Pass Under the Connecticut River Line MassDOT

Springfield, MA

The new North End Pedestrian Pass Under the Connecticut River Line project provides a safe and direct connection beneath a busy railroad line between two established Springfield North End neighborhoods where none previously existed, resulting in much-needed access to important goods and services and community resources.

HDR performed overall project management, civil/traffic/safety engineering, layout and design of the pedestrian path, underpass design and ADA compliance, security and communications, structural design quality control, railroad coordination/staging and track design, drainage and pump station design, public outreach, preparation of the contract documents, resident engineering services and construction administration.



PROJECT RELEVANCE

- Multi-modal & Highway preliminary/final design
- Traffic analysis, intersection and signal design
- Development of contract plans/documents
- Environmental documentation/permitting
- Hydraulic calculations and analyses
- Technical writing
- Topographic survey & ROW layout
- Public involvement
- Local Agency coordination assistance

River Street Reconstruction Project City of Cambridge, MA

Cambridge, MA

The reconstruction project is under construction and will serve to maximize safety and convenience for all modes of travel with the replacement of existing, outdated traffic signal equipment at five intersections to allow improved operations, a lane reduction plus space for dedicated bicycle facilities.

Work includes roadway, traffic signal and streetscape improvements and features full-depth pavement reconstruction and overlay, cement concrete sidewalks and pedestrian ramps, granite curb, separated bike lanes, storm drain improvements, utility adjustments, pavement markings, signage, traffic signals, street lighting and landscape/architecture elements.



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and reduction of material use.

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