

SLR International Corporation

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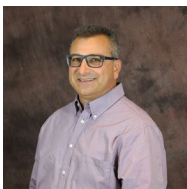
December 20, 2024

Mr. Tobey Reynolds, PE
Assistant Director of Project Development; Chairperson, Consultant Selection Committee
New Hampshire Department of Transportation

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

SLR International Corporation (SLR) is pleased to submit this Letter of Interest for the statewide on-call preliminary engineering prequalified list of consultants Local Public Agency (LPA) QBS contracts. SLR is a multidisciplinary engineering, environmental science, planning, landscape architecture, and construction services firm with offices located throughout New England, including Bedford, NH. We currently have 6 staff that are NHDOT LPA Certified.

SLR has successfully completed roadway design, bridge design, transportation planning and engineering, environmental, and related services throughout New Hampshire and New England, for over 100 New England municipalities and dozens of New Hampshire municipalities. Our staff have municipal experience in all of the planning and engineering service areas presented in the Request for Letters of Interest.



We are pleased to designate **Michael Zarba, PE** to serve as our primary Project Manager for assignments under this contract. Mike is a former Municipal Engineer, Highway Superintendent, and Public Works Director. He understands the need to balance state and municipal requirements. **Mike is a licensed PE in New Hampshire and is NHDOT LPA certified. He is currently serving as Project Manager for the Town of Hampton, NH on-call roadway engineering and coastal engineering contract, and is the Project Manager for the NHDOT Charlestown #40667 project.** **Shelley Plude, PE** will serve as the primary Senior Structural Engineer, Bridge Design Lead and Project Manager on selected assignments. Shelley is responsible for preparation of construction documents, existing conditions inspections/reports, structural type studies, and day-to-day project management on a variety of bridge projects including municipal, state, and federally funded rehabilitation, superstructure, and full bridge replacements. **Shelley is a licensed PE in New Hampshire and is NHDOT LPA certified.**



We currently have on-call municipal engineering and planning service contracts with Hampton, NH; Salem, NH; Manchester, NH; Rochester, NH; Dover, NH; and more than 50 active on-call contracts for municipalities in other New England states. SLR has been serving New Hampshire municipalities for three decades.

For subconsultants, **Doucet Survey** will provide topographic survey, ROW layout, and plan development, as required. Doucet currently has an on-call survey services contract with the Department. Their Bedford, NH office is located in the same building as SLR, which will provide for efficient coordination. **Preservation Company** will provide historic resource assessments, **Monadnock Archaeology** will provide archaeological assessments, and **Normandeau Associates** will provide assistance with environmental assessments and bat surveys as required. All of our subconsultants have previous working relationships with SLR, and are currently on the SLR team for the NHDOT Route 12 Charlestown project.

We look forward to the opportunity to receive prequalification for these municipal services. Feel free to contact Mike Zarba at mzarba@slrconsulting.com with any questions.

Best Regards,

SLR International Corporation

A handwritten signature in blue ink, appearing to read "Anthony Ciriello, Jr.".

Anthony Ciriello, Jr., PE
US Sector Leader – Government &
Infrastructure

A handwritten signature in blue ink, appearing to read "Michael Zarba".

Michael Zarba, PE
Principal Transportation Engineer
Maine Office Manager

PROJECT UNDERSTANDING & APPROACH

SLR staff are familiar with the NHDOT Local Public Agency Manual for the Development of Projects; and understand the roles and responsibilities for consultants, municipalities, NHDOT and FHWA. We are also familiar with the NHDOT wetlands, cultural resources, contamination, water quality, and air and noise programs and requirements. SLR staff are qualified to complete work in all of these areas, providing efficiencies and project cost effectiveness. Before submitting on any municipal engineering project, we review potential real or perceived conflicts of interest with other current or recent past projects.

SLR has successfully completed roadway design, bridge design, and related services for over 100 New England municipalities. We have staff with substantial experience working on Federally funded TAP, CMAQ, MOBRR, and SBA programs. We also have experience working with municipalities throughout New England assisting with Federal and state funded infrastructure grant programs.

SLR staff have substantial experience in the following municipal engineering services:

HIGHWAY DESIGN

Preliminary, Final, and Contract Planning

SLR has developed an extensive portfolio of highway and infrastructure improvement projects for municipalities, state agencies, and private developers. With a “Complete Streets” approach, our in-house staff can handle all aspects of a transportation improvements system, including planning, permitting, conceptual design, environmental assessment, pavement and drainage evaluation, safety concerns, and construction management services. Our in-house technical staff can handle all aspects of transportation improvement systems, including planning, permitting, conceptual design, environmental assessment, pavement and drainage evaluation, safety concerns, value engineering, cost estimating, final design, and construction management services.

Traffic Engineering: SLR offers a broad range of services in the area of traffic engineering and design. Work includes traffic impact and parking studies, access management, congestion mitigation, bicycle-pedestrian studies, traffic calming, transit studies, highway interchange planning, safety studies, traffic signal/communication systems design, intersection designs, signage, and pavement marking designs.

Stormwater Engineering

SLR has been at the forefront of stormwater engineering and management, ranging from development of regional and statewide regulations and guidelines to site-specific design of stormwater detention basins and treatment systems. Our staff are well versed in TR-20, HEC-1, and HEC-HMS hydrologic models.

Construction Phase Services: SLR administers construction support services that are an invaluable asset to our major design disciplines, providing the expertise of qualified professionals and field technicians in construction administration, engineering, and inspection. Members of the team are certified by National Institute for Certification in Engineering Technologies (NICET), the American Traffic Safety Services Association (ATSSA), and the NorthEast Transportation Technician Certification Program (NETTCP). The firm’s construction-phase services include bidding assistance, periodic site observations, resident engineering, review of contract submittals and payment requisitions, and project closeout.



Carpenter Street / Kingsbury Street area in Keene, NH showing previous poor stormwater management conditions, prior to SLR improvements.

BRIDGE AND CULVERT DESIGN

SLR has expertise in preliminary design, final design, and development of contract documents for bridge maintenance, rehabilitation, and replacement design for various bridge structures; inspection and load rating of various bridge types, including gusset plates, and completions of Bridge Rating Form 4 for as-built and as-inspected conditions; hydraulic calculation and analyses associated with bridges, waterways, and drainage structures; design of scour countermeasures and substructure protection; overhead sign structure design; retaining wall design; and bridge construction support services. SLR is a leader in New England in the incorporation of fluvial geomorphology in the assessment of culvert sizing and design to improve resiliency and sustainability. We were recently awarded an ACEC Engineering Excellence Award in Massachusetts for such a culvert design project.



SLR-designed Pleasant Pond Road Bridge over Collins Brook, Francistown, NH

Geotechnical Evaluations, Analyses, and Design: SLR geotechnical engineers are involved with subsurface exploration programs; field testing; underpinning; temporary earth retaining systems; soil and rock slope stability; bedrock contouring; seismic analysis; and pavement evaluations and design.

ADDITIONAL WORK EFFORTS

Environmental Services: SLR's experience includes environmental and cultural resource identification and impact evaluation and minimization; preparation of appropriate state and NEPA environmental documentation, as well as natural and cultural resource investigations and permitting requirements.

Supplemental Added Services: SLR has offered a wide array of additional services to municipalities throughout New England, including:

Landscape Architecture for Context-Sensitive Design Solutions: SLR has nearly 20 landscape architects in New England. Our environmental and highway design teams integrate Landscape Architecture into almost every project for creative solutions aimed at streetscape, mitigating visual impacts, and restoring affected properties.

Resiliency, Climate Change Adaptation, and Rivers and Roads / Fluvial Geomorphology Assessments and Design: For projects in coastal areas, understanding the effects of Sea Level Rise may be key to developing solutions that will "adapt" to provide for maximum longevity. For roads adjacent to rivers prone to flooding, understanding changing rainfall patterns, including greater storm frequency and intensities, may be key to developing solutions that will be more "resilient" as we strive to combat climate change. SLR is a recognized leader in New England in the application of Rivers and Roads principles and practices to improve resiliency in the design of roadways, culverts, and bridges.

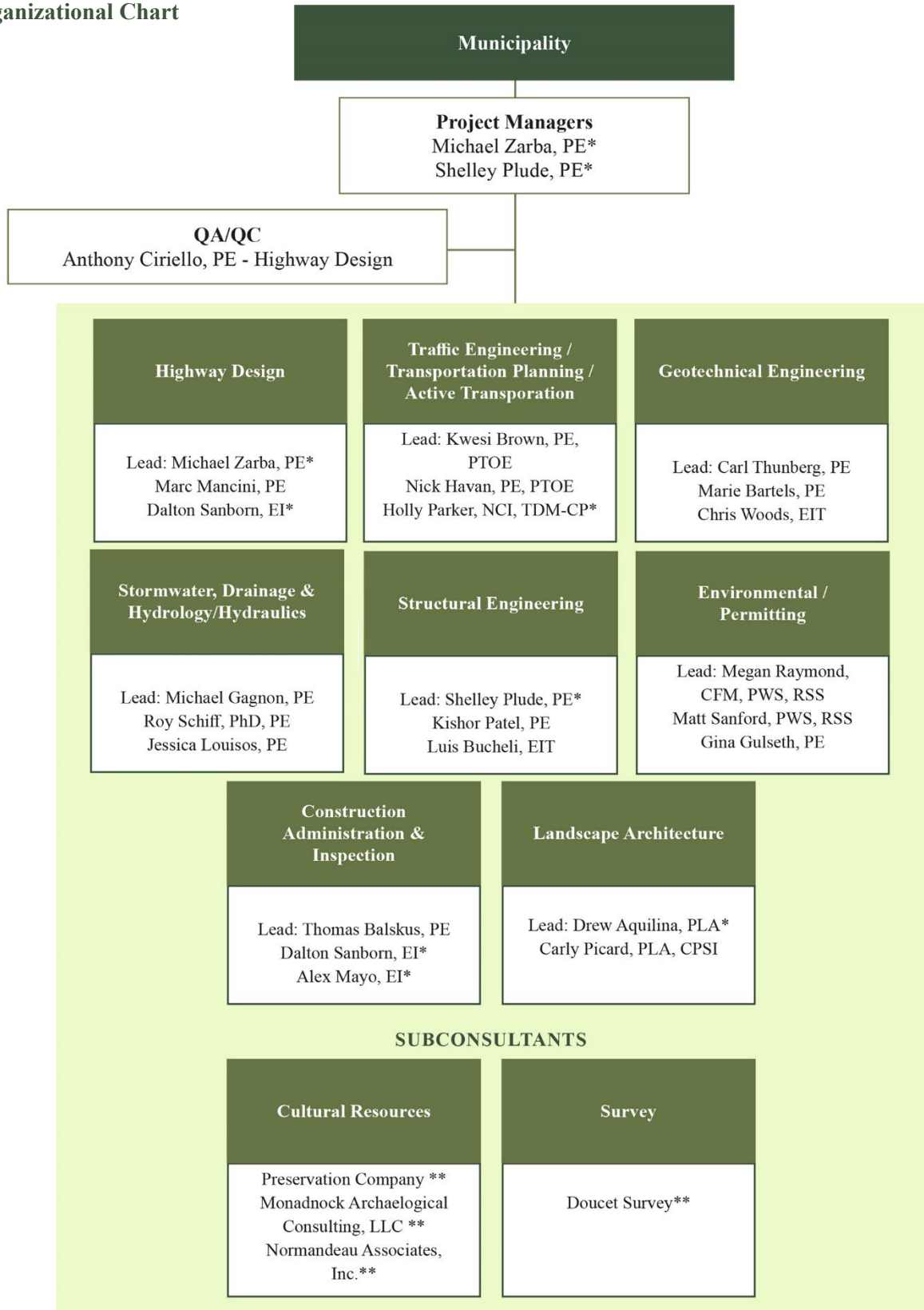
Water and Wastewater Design: SLR offers system evaluations, engineering and design, and construction oversight services.

Bikeways and Greenways: SLR is a leading consultant for the planning, design, and construction administration and inspection of bikeways and greenway projects. The firm has been involved in more than 100-miles of bikeway and multi-use trail projects throughout the East Coast. The nationally acclaimed Farmington Canal Greenway in Cheshire, Connecticut, designed by SLR, is the first Federally funded greenway and is recognized as one of the best trails in the country and has received several awards for its "Design Excellence."

Our approach to managing and completing municipal projects will be guided by the following:

- **Adherence to the NHDOT Local Public Agency Manual for the Development of Projects; and all applicable NHDOT Policies, Principles, and Practices**
- **Commitment to Quality Management (QM), incorporating Quality Assurance and Quality Control**
- **Proper Resource Allocation & Staffing**
- **Adherence to Project Schedule & Budget**

Organizational Chart



*NHDOT LPA Certification
**Subconsultant

PROJECT TEAM

SLR staff and subconsultant firms that will be available for assignments under this contract are identified on the table on the following table. Bios of the key management staff anticipated to be involved under the On-Call Highway Design Contract include the following:

Anthony Cirillo, PE will serve as the Principal-in-Charge for all assignments, overseeing corporate responsibilities and monitoring budget and schedule performance. Tony offers a strong background in infrastructure-related projects including highway and bridge construction and rehabilitation, interstate resurfacing and widening projects, traffic engineering, and utility construction projects including coordination, design, and approvals for rail crossings. He oversees the firms' state, municipal, and Federally funded transportation design and planning projects in accordance with Federal Highway Administration, State Departments of Transportation, and AASHTO standards.



Michael Zarba, PE, LPA will serve as Project Manager for most transportation planning and highway engineering assignments. Mike is a New Hampshire Professional Engineer with over 35 years of municipal and consultant engineering experience. He is NHDOT LPA certified. Mike has extensive design, management, and administrative work experience in municipal public works and consultant engineering firms. Mike has a broad knowledge of design, construction, and maintenance of public infrastructure. He also has experience in roadway design, municipal site plan revisions, drainage, and building maintenance. Mike brings extensive knowledge of, and experience in, designing, building, and maintaining public works facilities and public infrastructures.



Shelley Plude, PE, LPA will serve as the Project Manager for most bridge, culvert, and structural design assignments. Shelley is a New Hampshire Registered Professional Engineer with over 13 years of experience, and is NHDOT LPA certified. She serves as SLR's Structural and Bridge Design Lead, and is responsible for structural calculations and analysis, preparation of construction documents, existing conditions inspections/reports, structural type studies, and day-to-day project management on a variety of bridge projects including municipal, state, and Federally funded rehabilitation, superstructure, and full bridge replacements. Other projects include retaining walls and bulkheads, and pedestrian facilities.



The SLR Team includes the following subconsultants and areas of specialty. All of these firms are well-known to the Department, and each has had previous on-call survey or environmental contacts with the Department.

Doucet Survey, LLC will be responsible for all survey and right-of-way tasks. Steve Michaud, PS, CFS, Principal, will oversee all of their assignments.

Preservation Company will be responsible for historic resource assessments and documentation. Reagan Ruedig, Principal, will oversee all of their work.

Monadnock Archaeological Consulting, LLC will be responsible for archaeological assessments and field work. Robert Goodby, Principal, will oversee this work.

Normandeau Associates, Inc. will complete any required wetlands mapping and bat acoustic surveys. Jamie O'Brien will be the point person for this work.

The above SLR staff and subconsultant staff are all involved in the ongoing NHDOT Route 12 Reconstruction Project in Charlestown, NH.



Project Team

SLR Team Staff Support for LPA Projects
*NHDOT LPA Certification

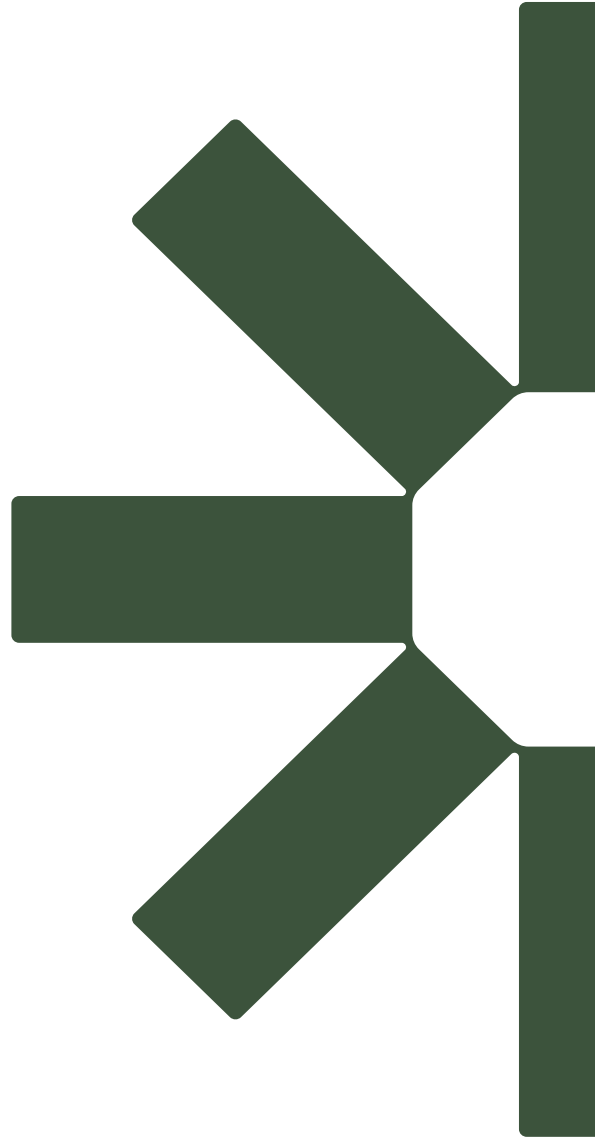
		PROJECT EXPERIENCE																
		YEARS OF EXPERIENCE	YEARS WITH FIRM	LPA CERTIFIED	PROJECT MANAGEMENT	HIGHWAY DESIGN	BRIDGE DESIGN	STRUCTURAL ENGINEERING	ALTERNATIVE PROCUREMENT METHODS	CORRIDOR STUDY PLANNING	BRIDGE INSPECTION	BRIDGE LOAD RATING	HYDROLOGY / STORMWATER	ENVIRONMENTAL	TRAFFIC ANALYSIS	GEOTECHNICAL ENGINEERING	SURVEY	PUBLIC INVOLVEMENT
KEY PERSONNEL	PROJECT ROLE																	
Tony Ciriello, PE	Principal-in-Charge	31	30		X	X	X	X	X	X			X	X	X			X
Michael Zarba, PE*	Project Manager; Transportation Engineering	36	6	X	X	X	X	X	X	X					X			X
Kwesi Brown, PE, PTOE	Traffic Engineering/Signals	23	13		X	X			X	X					X			X
Dave Sullivan, PE	Transportation Engineering	41	36		X	X				X					X			X
Marc Mancini, PE	Highway Design	8	5		X	X				X								X
Nick Havan, PE, PTOE	Traffic Engineering/Signals	39	2		X	X				X					X			
Mohamed Aguib, PE	Traffic Engineering/Signals	15	4			X				X					X			
Michael Gagnon, PE	Stormwater Design & Hydraulic Modeling	40	13		X	X							X	X				X
Heather Minott, EIT	Stormwater Design & Hydraulic Modeling	9	7			X							X	X				
Carl Thunberg, PE	Geotechnical Engineering	41	4		X							X				X		X
Chris Woods, EIT	Geotechnical Engineering	4	3													X		
Dalton Sanborn, EI	Highway Eng./CADD	3	3	X		X				X								
Alex Mayo, EI	Highway Eng./CADD	3	2	X		X												
Shelley Plude, PE*	Project Manager; Structural Engineering	13	13	X			X	X	X		X	X						X
Kishor Patel, PE	Structures Design and QC, Overhead Sign Structure Design	25	25				X	X	X		X	X						
Luis Bucheli, EIT	Structural Engineering	3	1				X	X			X	X						X
Mathew Sanford, PWS, RSS	Natural Resources Management, Wetland Studies, Permitting	24	23		X									X				X
Megan Raymond, CFM, PWS, RSS	Natural Resources Management, Wetland Studies, Permitting	25	7											X				X
Meaghan Fogarty	Natural Resources Management, Wetland Studies, Permitting	6	3											X				
Gina Gulseth, PE	Haz. Materials Assessments, Remediation	30	5		X													X
Roy Schiff, PhD, PE	Hydrology and Hydraulics, Flood Mitigation, Bank Stabilization	21	19		X								X	X				X
Jessica Louisos, PE	Hydrology and Hydraulics, Flood Mitigation, Bank Stabilization	17	17										X	X				X
Brian Cote, PE, CFM	Hydrology and Hydraulics, Flood Mitigation, Bank Stabilization	27	27										X	X				
Holly Parker, NCI, TDM-CP*	Transportation Planning	28	3	X							X			X				X
Neil Olinkski, AICP, PTP	Transportation Planning	21	19								X			X				
Drew Aquilina, PLA*	Landscape Architecture, Context Sensitive Design, Visualization	30	2	X										X				
Carly Picard, PLA	Landscape Architecture, Context Sensitive Design, Visualization	17	7											X				
Doucet Survey (subconsultant)	Survey/ROW	31	N/A														X	
Preservation Company (sub.)	Historic Resources	41	N/A											X				
Monadnock Arch. (sub.)	Archaeology	20	N/A											X				
Normandeau Assoc. (sub.)	Environmental resources/bat survey	54	N/A											X				

REFERENCES

- Project Name:** On-Call Engineering Services, Hampton, NH
Contact: Jennifer Hale, PE, Director of Public Works
Address: Town of Hampton, 100 Winnacunnet Road, Hampton, NH 03842
Phone: (603) 929-3202
Email: jhale@hamptonnh.gov
- Project Name:** Patricia T. Russell Park and Carpenter Street Roadway and Stormwater Improvements, Keene, NH
Contact: Andrew Bohannon, Deputy City Manager, former Director of Parks and Recreation
Address: City of Keene, 3 Washington Street, Keene, NH 03431
Phone: (603) 757-1835
Email: abohannon@keenenh.gov
- Project Name:** CTDOT Traffic and Safety Engineering On-Call Contract, Various Locations, Connecticut
Contact: Matthew Blume, PE, PTOE, Division Chief – Traffic Engineering
Address: Connecticut Department of Transportation (CTDOT), 2800 Berlin Turnpike, P.O. Box 317546, Newington, CT 06131
Phone: (860) 594-2248
Email: matthew.blume@ct.gov



Appendix



Michael F. Zarba, PE

Principal Transportation Engineer | Portland, ME



Michael Zarba is a Professional Engineer with over 30 years of municipal and consultant engineering experience. He has extensive design, management, and administrative work experience in municipal public works and consultant engineering firms. Mike has a broad knowledge of design, construction, and maintenance of public infrastructure. He also has experience in roadway design, municipal site plan revisions, drainage, and building maintenance. Mike brings extensive knowledge of, and experience in, designing, building, and maintaining public works facilities and public infrastructures.

Years of Experience

6 years with the firm
30 years with other firms

Education

BS, Civil Engineering

Technical Registrations

Professional Engineer - NH, ME, CT
NHDOT LPA Certification

On-Call Engineering Services for Site Assessments and Preliminary Designs to Mitigate Flooding in Hampton, NH Neighborhoods by Restoring Hampton-Seabrook Estuary Salt Marsh, Hampton, NH

Project Manager for roadway and drainage improvements along Greene Street, Gentian Road, and Kings Highway. Mike was responsible for providing the schematic layout and concept plan necessary to update the existing deteriorated stormwater infrastructure that was designed and installed with a different drainage area.

NHDOT Route 12 Reconstruction Project, Charlestown, NH

Project Manager for preliminary and final design to select an appropriate action that is supported by the community; technically feasible; environmentally permissible; and economical. This challenging project which will include traffic engineering and transportation planning; assessment of riverbank stabilization; an adjacent railroad operation; and environmental assessments.

On-Call Engineering Services; Salem, NH

Project Manager for an On-Call Engineering Services Contract with the Town of Salem, NH to include: Roadway Engineering; Active Transportation; Stormwater Engineering; Dam Engineering; and Facility Assessments, as needed.

Anthony A. Ciriello, Jr., PE

Sector Lead, Infrastructure | Cheshire, CT



Tony Ciriello is our US Infrastructure Sector Lead and offers a strong background in infrastructure-related projects including highway and bridge construction and rehabilitation, interstate resurfacing and widening projects, traffic engineering, and utility construction projects including coordination, design, and approvals for rail crossings. He oversees the firms' state, municipal, and Federally funded transportation design and planning projects.

Years of Experience

30 years with the firm
1 year with other firms

Education

BS, Civil Engineering

Technical Registrations

Professional Engineer - CT

On-Call Engineering Services; Salem, NH

Principal-in-Charge Project Manager for an On-Call Engineering Services Contract with the Town of Salem, NH to include: Roadway Engineering; Active Transportation; Stormwater Engineering; Dam Engineering; and Facility Assessments.

On-Call Engineering Services; Hampton, NH

Principal-in-Charge of Engineering Services Contract for the Town of Hampton, NH. To date, services have included several flooding mitigation studies in the coastal areas of the Town, and design of updated roadway and stormwater infrastructure improvement project in the Meadow Pond/King's Highway area.

NHDOT Route 12 Reconstruction Project, Charlestown, NH

Principal-in-Charge for the Route 12 Reconstruction Project in Charlestown, NH. This challenging project will include roadway widening; improved geometry; improvements to the current deteriorated stormwater and drainage system; environmental assessment and documentation; minimization of impacts to wetland, floodplains, and interruptions to an adjacent railroad operation; and public participation.



Mike Gagnon brings over 30 years of diverse project experience with the preparation of feasibility studies, engineering reports, construction drawings, regulatory permits, technical specifications, and cost estimates. Mike has been responsible for engineering services associated with many transportation, land development, and water resource projects throughout southern New England from inception through construction. He has expertise in stormwater management design and hydraulic modeling. He has vast knowledge of local, state, and federal land use and environmental regulations, with several years of project development experience and coordination with local and state agencies.

Years of Experience

13 years with the firm
27 years with other firms

Education

BS, Civil Engineering

Technical Registrations

Professional Engineer - MA, CT, NH

NHDOT Route 12 Reconstruction Project, Charlestown, NH

Lead Drainage and Stormwater Engineer for the NHDOT Route 12 Reconstruction Project in Charlestown, NH. This challenging project will include roadway widening; improved geometry; improvements to the current deteriorated stormwater and drainage system (evident by a recent roadway wash-out in the study area); environmental assessment and documentation; minimization of impacts to wetland, floodplains, and interruptions to an adjacent railroad operation; and public participation.

MassDOT Task-Based Services On-Call: Hydrologic, Hydraulic & Scour Analysis for Accelerated Bridge Program

Project Manager for rapid responds analysis and design for bridges located in Taunton, West Stockbridge, West Bridgewater, & Westfield, MA. Responsible for hydrologic and hydraulic analysis and report preparation. Data collection and site investigation consisted of site visits to document existing conditions, sediment samples for sieve analysis and subsequent scour analysis, obtaining previous hydraulic models and reports as prepared for the National Flood Insurance Program (NFIP), bridge drawings, FEMA mapping, and GIS information.

Thomas P. Balskus, PE

US Manager of Construction Engineering | Cheshire, CT



Tom Balskus offers a broad range of experience in the areas of civil and construction engineering. Project experience includes design of stormwater management, highway design, sanitary sewer, and dam/spillway design. Construction experience includes inspection and administration, feasibility, and project coordination on state and Federally funded transportation and other infrastructure projects.

Years of Experience

26 years with the firm
4 years with other firms

Education

BS, Civil Engineering
BSCCE Courses

Technical Registrations

Professional Engineer - CT
ACI - Concrete Field Testing Level I

Safety and Traffic Improvements to Route 4 from the Farmington River to Mountain Spring Road (CTDOT Project No. 51-260), Farmington, CT

Provided construction engineering and inspection services for CTDOT for the reconstruction of Route 4 and a new local road including installation of watermain, sanitary sewer, storm sewer, gas and communication utility relocations, controlled material handling, retaining walls, box culvert, roadway reconstruction with staged construction, signalized intersections, and significant prosecution and progress/maintenance and protection of traffic requirements.

Marc S. Mancini, PE

Associate Transportation Engineer | Cheshire, CT



Marc Mancini is an Associate Transportation Engineer with experience preparing technical reports, developing roadway construction plan sets, bid documents, traffic signal design and conducting traffic analysis. Marc's work involves planning for corridor studies, multi-modal transportation circulation, and context-sensitive transportation operation analysis. He is proficient in the use of software programs including ArcGIS, AutoCAD, Civil 3D, MicroStation, Open Roads, HCS and Trafficware Synchro.

Years of Experience

5 years with the firm
3 years with other firms

Education

BS, Civil Engineering

Technical Registrations

Professional Engineer - CT

Route 12 Improvement Project (NHDOT), Charlestown, NH

Lead Highway Design Engineer for the NHDOT Route 12 Reconstruction Project in Charlestown, NH. This challenging project will include roadway widening; improved geometry; improvements to the current deteriorated stormwater and drainage system; environmental assessment and documentation; minimization of impacts to wetland, floodplains, and interruptions to an adjacent railroad operation; and public participation.

High Street Complete Streets Improvements, Bridgewater, MA

Transportation Engineer responsible for the planning and design of complete streets components along a 0.3-mile section of High Street between Route 28 (Main Street) and the High Street Bridge. The planning and design process included a review of the Town's Complete Streets Prioritization Plan, identification of safe pedestrian and bicycle mobility, a review of utility impacts and the redesign of High Street to include sidewalks and bike lanes.

Nick Havan, PE, PTOE, ENV SP

Principal Transportation Engineer | Boston, MA



Nick Havan is a Principal Transportation Engineer with over 37 years of experience in both the public and private sectors, including 14 years of experience with the Massachusetts Department of Transportation. Expertise includes preparing traffic impact studies; integrating sustainable and multi-modal design elements; providing signal design; performing parking studies and analyses; providing wayfinding design; and preparing construction phase traffic management plans.

Years of Experience

1 year with the firm
37 years with other firms

Education

BS, Civil Engineering

Technical Registrations

Professional Engineer - MA, NH

NHDOT Route 12 Reconstruction Project, Charlestown, NH

Traffic Engineering Lead for the NHDOT contract involving the widening and reconstruction of a section of Route 12 in Charlestown, NH. Increased shoulders will be designed to accommodate and improve safety for pedestrians and bicyclists.

Matthew Sanford, MS, PWS, RSS

US Manager of Ecology | Cheshire, CT



Matthew Sanford is the firm's Manager of Ecology with experience in the areas of natural resources, vegetation management, invasive species control, GPS resource mapping, GIS modeling, water quality monitoring, watershed planning, wetland assessment, and peer review services. He is a Professional Wetland Scientist and is a Registered Soil Scientist, and has expertise in United States Army Corps of Engineer (USACE) wetland delineations.

Years of Experience

23 years with the firm
1 year with other firms

Education

MS, Wetland Biology
BS, Natural Resource
Management

Technical Registrations

Certified ACOE Wetland Delineator
Professional Wetland Scientist
Registered Soil Scientist

NHDOT Route 12 Reconstruction Project, Charlestown, NH

SLR Lead Environmental Scientist for the project which will include roadway widening; improved geometry; improvements to the current deteriorated stormwater and drainage system; and environmental assessment.

Shelley Plude, MS, PE

Senior Structural Engineer, Bridge Design Lead | Cheshire, CT



As a Senior Structural Engineer, Shelley Plude is responsible for structural calculations and analysis, preparation of construction documents, existing conditions inspections/reports, structural type studies, and day-to-day project management on a variety of bridge projects including municipal, state, and Federally funded rehabilitation, superstructure, and full bridge replacements. Other projects include retaining walls and bulkheads, pedestrian facilities, and dams and fishways.

While completing her master's at the University of Connecticut, she served as a graduate research assistant responsible for conducting research in the field of damage detection as a part of the bridge health monitoring program.

Years of Experience

13 years with the firm

Education

MS, Structural Engineering
BS, Civil Engineering

Technical Registrations

Professional Engineer - CT, CT, ID,
MA, ME, NH, NY, OR, VT, WA
NHDOT LPA Certified

NHDOT Route 12 Reconstruction Project, Charlestown, NH

Lead Bridge Engineer and Structural Engineer for the NHDOT Route 12 Reconstruction Project in Charlestown, NH. This challenging project will include roadway widening; improved geometry; improvements to the current deteriorated stormwater and drainage system (evident by a recent roadway wash-out in the study area); environmental assessment and documentation; minimization of impacts to wetland, floodplains, and interruptions to an adjacent railroad operation; and public participation.

Replacement of Nonnewaug Road Bridge (State Project No. 10-88), Bethlehem, CT

Served as the Project Manager and Structural Design Engineer for the replacement of the Nonnewaug Road bridge. The existing bridge will be replaced on a new roadway alignment allowing the new bridge to be built off-line while maintaining the existing roadway throughout the majority of construction. Tasks included inspection of the existing structure, structural design, development of plans, specifications, and cost estimate, and shop drawing review.

Roy Schiff, PHD, PE

Principal Water Resources Engineer & Scientist | Waterbury, VT



Roy Schiff specializes in river and floodplain restoration, geomorphic and habitat assessment, flood mitigation, hydrology and hydraulics, transportation resilience, sediment transport analysis, and bank stabilization. In addition to applied restoration work such as channel creation, bank stabilization, and dam/levee removal, he has been involved in several research projects across Vermont and the region evaluating the economic impacts of living in floodplains, drafting best

engineering practices to reduce future flood risks, improving protocols for habitat assessment, and creating guidelines for channel restoration.

Years of Experience

19 years with the firm
2 years with other firms

Education

PhD, Stream Restoration &
Aquatic Ecosystems
MS, Environmental Science
& Engineering
BS, Civil Engineering

Technical Registrations

Professional Engineer - VT
Certified Soil Evaluator, University
of Massachusetts

On-Call Engineering Services, Hampton, NH

Project Manager for assignments under this 5-year on-call roadway engineering and coastal engineering services contract. Responsible for performing technical oversight for all of the tasks associated with the firm's first assignment which required a Flood Control Study for the Route 1A corridor.

Magalloway River Bank Stabilization Project, Errol, NH

Project Manager for preliminary and final design of a unique engineered log jam/bank revetment using trees, rock ballast, and plantings for this project located in a National Wildlife Refuge.



Holly Parker is a Principal Transportation Planner with over 25 years of experience in active transportation planning. She has a deep understanding of the planning and public engagement required to support walking, cycling, and transit, and to encourage shared vehicle use. She has formalized this experience with a National Charrette Institute (NCI) and Transportation Demand Management Certified Professional (TDM-CP) training and certification. She recently received the Transportation Equity Fundamentals Certification.

Years of Experience

3 years with the firm
25 years with other firms

Education

MS, Environmental Studies
BA, Political Science

Technical Registrations

National Charrette Institute
Transportation Demand Management
Certified Professional
Transportation Equity Fundamentals
Certification
NHDOT LPA Certification

Parking Supply/Demand Analysis for Downtown Portsmouth, Portsmouth, NH

As a subconsultant to Desman Design Management, served as a Principal Transportation Planner with responsibilities of multi-modal design, Transportation Demand management, and public engagement.

Town-Wide Walk/Bike Master Plan, Brattleboro, VT

Serving as Project Manager for the development of a Town-wide walk/bike master plan that will provide a roadmap to a safer, more convenient, and more connected network for those that walk and bike in Brattleboro.

Carl W. Thunberg, PE

Principal Geotechnical Engineer | Bedford, NH



Carl Thunberg is a Principal Geotechnical Engineer with over 30 years of experience in geotechnical analysis, design, and construction. His areas of expertise include deep and shallow foundation analysis/design for bridges, roadways, buildings, dams, slopes, retaining walls, dewatering, landfills, and planning the execution of large-scale subsurface exploration programs on land and over water. Carl has a strong reputation for professionalism, quality, practicality, teamwork, and an ability to manage projects to successful technical and financial outcomes.

Years of Experience

3 years with the firm
34 years with other firms

Education

BS, Civil Engineering
BS, Hydrology

Technical Registrations

Professional Engineer - NH, CT,
ME, MA, NY, RI, VT, WA, OR

NHDOT Route 12 Reconstruction Project, Charlestown, NH

Lead Geotechnical Engineer for improvements to a section of Route 12 in Charlestown, NH for the NHDOT. The project will include roadway design, traffic engineering, environmental assessment, structural engineering, and geotechnical engineering services.

Nashua Department of Public Works Office Building, West Hollis Street, Nashua, NH

Project Manager for the geotechnical engineering study for a proposed DPW Administrative Office building adjacent to the Four Hills Landfill. A report including subsurface conditions and the geotechnical implications of these conditions with respect to design and construction for the proposed building was prepared.

APPLICABLE WORK EXPERIENCE

ROADWAY PROJECTS

Route 12 Charlestown #40667: The NHDOT has contracted with SLR on the Charlestown #40667 project, which involves the reconstruction and rehabilitation of NH Route 12 in Charlestown, NH. The project area is approximately 2.4-linear-miles of NH Route 12 from the Route 12A intersection in the south to Almar Street in the north. The section of Route 12 north of Almar Street has been previously improved, and construction of improvements along Route 12 south of Route 12A was recently completed. The project will widen the shoulders in each direction, for a net addition of approximately 6-feet along the travel way.



Hampton, NH On-Call Roadway Engineering and Coastal Engineering Services:

On-Call Contract – services to include, as required: roadway design; traffic signal operations and design; coastal engineering services; drainage evaluation and design; hydraulic modeling; sustainable shoreline design; structures inspection and design; and public participation. SLR is currently working on its first assignment, which involves a combination of highway, stormwater, and coastal planning and design to complete the Meadow Pond / King’s Highway Flood Mitigation

Study. This study will analyze the existing impacts from sea-level rise, increase in frequency and intensity of storms, tidal influences, existing floodplain conditions and storage, as well as existing restriction from bridge outlet structures and stormwater management systems, and will propose phased improvements to reduce the frequency and intensity of flooding currently experienced by residents in this coastal neighborhood of Hampton.



Magalloway River Bank Stabilization - Errol, NH: SLR worked with NHDOT on concept design and JP Sicard on final design to stabilize a section of river bank along the Magalloway River in Errol near New Hampshire Route 16. We designed the engineered log jam / bank revetment using trees, rock ballast, and plantings. The project is located in a National Wildlife Refuge and thus aquatic and riparian habitat restoration were important factors of the bank stabilization project. The road was moved as part of the design to help establish a stable slope. The project included survey, site assessment, alternatives analysis, and design. We will also be assisting with construction oversight to implement the design. Computations

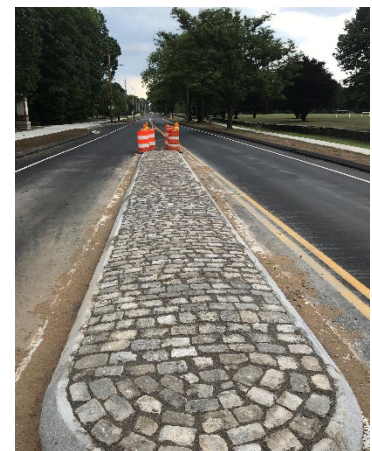
were performed using USDA methods to confirm that footer, key, stacked and racked logs would be stable based on geotechnical, buoyancy, and hydraulic forces. *This project was awarded an ACEC-NH Engineering Excellence Award.*

Western Avenue Complete Streets Improvement Project - Westfield, MA:

SLR assisted the City of Westfield on improvements to this 2.7-mile arterial. The key to our success was in assigning an internal team inclusive of engineers, planners, environmental scientists and regulatory specialists, landscape architects, and bike/pedestrian planning staff.

Improvements included:

- Intersection and traffic signal reconstruction
- Construction of a new traffic signals
- Raised and flush median treatments
- Multi-use path along Western Avenue and Lloyds Hill Road
- Pavement reclamation with areas of full-depth pavement widening
- New pavement and granite curbing



- Pedestrian improvements including pedestrian signals, crosswalks, and handicap ramps
- Traffic signs and pavement markings
- Reconstruction of side street intersections and driveway aprons to meet new roadway grades
- Drainage improvements including infiltration measures
- Extension of sanitary sewer lines
- New water service connections and hydrants to the 12” water main
- Corridor landscape restoration

Colby College Athletics Center Intersection Review & Roundabout Design - Waterville, ME: SLR assisted Colby College in the development and design and engineering for roadway and streetscape improvements for a roundabout at the new Colby College Athletics Center in Waterville, ME. The complex, totaling 350,000-square-feet, includes an indoor 200-meter track, the state’s only Olympic sized pool, a multi-level 13,500-square-foot fitness center, squash courts, and atrium. The center and roundabout opened in late 2020. The roundabout serves as a gateway to the campus from points to the south via Kennedy Memorial Drive. The roundabout further incorporates a walking trail alongside Johnson Pond. *This project was awarded an ACEC-ME Engineering Excellence Award.*



West Street Roadway Rehabilitation - Goshen, MA: SLR assisted the Town of Goshen with the design, permitting, and preparation of construction plans for the reconstruction of West Street, a rural collector with one lane in each direction. The roadway is a vital link between Goshen and its community, as it serves as the primary bus route to the neighboring New Hingham Elementary School in Chesterfield. The 2-mile-long reconstruction project involved minor widening to achieve a more bicycle and pedestrian friendly corridor, as well as pavement reclamation, landscaping, and rehabilitation of a 72-inch corrugated metal culvert. The project corridor features historic structures, dry laid stone walls, mature trees, and adjacent lands with state-regulated environmental restrictions.



Reconstruction of Chase Avenue - Waterbury, CT: SLR was retained by the City of Waterbury to assist with the reconstruction of 5,700-linear-feet of Chase Avenue, beginning at the intersection of Waterville Street and ending at North Main Street. The work involved roadway reconstruction and widening to accommodate two lanes in each direction, the construction of left-turn lanes at a number of side streets and major commercial drives, drainage improvements, and associated traffic signal modifications. Existing signals were upgraded and expanded as part of a closed-loop system that included emergency vehicle pre-emption. Analysis was performed using SYNCHRO, Version 7, a software package approved by the CTDOT. Extensive utility coordination and test pits were required for design of drainage systems, construction of retaining walls, and widening. The project team worked closely with Yankee Gas and CT utilities to locate and administer test pits and revised drainage design to minimize extent of gas main relocations overall. The firm also provided construction administration services for the second phase of construction.



BRIDGE / CULVERT PROJECTS

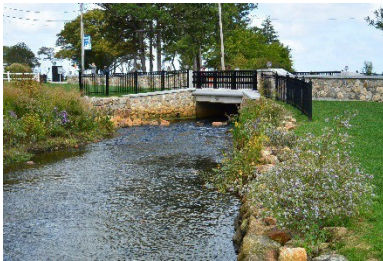


Pleasant Pond Road Bridge over Collins Brook – Franconia, NH:

SLR provided structural engineering and design services to Hanson Pipe & Precast. SLR designed a vehicular bridge and developed complete shop drawings for the precast concrete culvert, footing, and wingwalls for Pleasant Pond Road Bridge over Collins Brook. The bridge is 22-foot-wide by 7-foot-high by 30-foot-long. SLR performed all necessary design and load rating calculations for the structure. The design was developed with consideration of foundation design parameters established by the project team's geotechnical engineers. The structure was built with little

temporary and permanent impacts to the watercourse.

Vineyard Road over Burlington Brook – Burlington, CT: SLR was retained by the Town of Burlington for the design of a bridge replacement at Vineyard Road over Burlington Brook. The design conforms to CTDOT and federal standards. The existing bridge, constructed in 1954, is a single 52-foot span with a superstructure consisting of steel stringers with a cast-in-place concrete deck. The sufficiency rating for the bridge had fallen below 50% due to the poor condition of the steel stringers. The bridge width is 22-foot curb-to-curb with concrete curb and steel posts with cable guiderail along each fascia. The bridge superstructure is supported on concrete abutments. The firm provided survey; hydrologic, hydraulic, and scour analysis; wetland delineation; permitting; and roadway engineering and structural engineering services.



Replacement of Town Brook Bridges -

Plymouth, MA: The Town of Plymouth retained SLR to design the removal of several dams and outlet structures and replacement with three bridges. This work, along with the design of channel modifications, allowed restoration of herring migration through this section of Town Brook. SLR was responsible



for the design of the bridge replacements and dam removals, roadway modifications, hydraulic modeling, environmental permitting, stream channel modifications, landscape architecture, preparation of construction cost opinions, preparation of construction documents, shop drawing review, construction administration, and on-site project representation services.



Route 7 (Cold Spring Road) Culvert Replacement/Rivers and Roads

Process – Williamstown, MA; MassDOT: The Rivers and Roads program was developed in consultation with SLR, who was selected by MassDOT to evaluate and design improvements to a culvert with chronic maintenance needs and high flood risk. This project is unique in that it is one of the first in Massachusetts to be guided by the principals of fluvial geomorphology – the science of river form and process. Experience shows that culverts and other transportation infrastructure are most resilient to flooding and erosion if they are designed to match the channel they are located in. For this project the existing culvert was too small, poorly aligned, and unable to properly

transport sediment from the steep upstream watershed. *The project was awarded an ACEC-MA Engineering Excellence Award.*

Culvert Prioritization Model: Aiding Communities in the Selection of Priority Restoration Projects - Southern New Hampshire: The Southern New Hampshire Planning Commission, in association with New Hampshire Department of Transportation, retained SLR to screen culverts in the Piscataquog River watershed for risk. The screen draws on existing data to evaluate geomorphic compatibility, structural condition, aquatic organism passage, structure criticality, and ultimately risk. Local data can also be entered into the model to screen structures.

Blacks Road Bridge over Honeypot Brook - Cheshire, CT: SLR has completed services for the reconstruction of the Blacks Road Bridge over Honeypot Brook in Cheshire, Connecticut. The existing structure was a single 15-foot span comprised of prestressed concrete double-tee beams supported by stone masonry abutments. The bridge has a curb-to-curb width of 26-feet and an out-to-out width of 28.5-feet. Considering the existing condition of the substructure, SLR recommended a full replacement of the bridge. Our type study evaluated three structure alternatives, taking into consideration the needs of the town, hydraulics, construction, maintenance, impact to the environment, existing utilities (including the nearby wellfield), and estimated construction costs.



River Road Bridge over Pomperaug River (LOTICIP) - Southbury, CT: SLR provided design for rehabilitation of the River Road Bridge over Pomperaug River, a 100% CTDOT-funded local project. The existing bridge was constructed in 1962 and is a three-span structure (48'-88'-48') with a superstructure that consists of steel beams with a cast-in-place concrete deck. The curb-to-curb width of the bridge is 40' with a concrete safety curb and parapet with two-rail metal bridge railing. The three-span superstructure is supported by two concrete piers, and cast-in-place concrete abutments with wingwalls to retain the steep roadway slopes. As part of preliminary engineering, our design

team developed three alternatives, including steel and concrete alternatives, and evaluated the potential for implementation of Accelerated Bridge Construction techniques. The project team conducted a full hydraulic analysis and scour assessment in order to confirm visual inspection reports and to aid in designing scour countermeasures. Scour countermeasures designed included sheeting the abutment footings below the mud line with large, rounded boulders to the surface in order to maintain stream conditions supportive of the local fish habitat.

Nonnewaug Road Bridge (State Project No. 10-88), Bethlehem, CT: SLR was retained by the Town of Bethlehem to perform design and construction inspection services for the replacement of Nonnewaug Road Bridge. SLR designed a 32-foot precast concrete arch on a new alignment which allowed Nonnewaug Road to remain open throughout most of the construction, a benefit to both the traveling public and the active farm operation adjacent to the bridge. With the bridge being highly visible to neighboring properties and the abutting farm being named after the existing bridge, special care was taken in selecting the aesthetic treatments including a stone form liner, painted bridge rail, and timber guiderail on the approaches.



TRANSPORTATION CORRIDOR PROJECTS

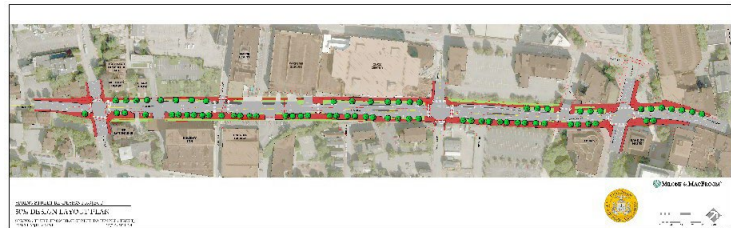


College Street Corridor Study and Redesign - Brunswick, ME: SLR was retained by the Town of Brunswick to provide engineering design, master planning and construction administration services for the College Street Reconstruction project. The project consisted of full-depth reconstruction of approximately 1,800-linear-feet of roadway, realignment and construction of new sidewalks on both sides of College Street and along Coffin Street, replacement and temporary bypass of an existing 6” water main with a new larger 12” main, removal and replacement of sewer manholes and pipe, evaluation (camera and inspection) of existing storm drainage system and design of improvements, and the redesign of

three roadway intersections including College Street at Maine Street, College Street at Park Row, and College Street at Harpswell Road.

Spring Street Corridor, Streetscape and Redesign - Portland, ME: SLR was retained by the City of Portland to provide engineering design and landscape architecture services to redesign an approximately 2,400-foot section of downtown Spring Street. The project included:

- Larger pedestrian walkways, open spaces, and small pocket parks
- Reduced number of travel lanes and pavement widths
- Formal bike lanes
- Formal transit stops
- Curb line bump-outs to reduce
- pedestrian crossing distances and to better define parking areas
- Increased on-street parking
- Highlighting and branding of the area with art and historic elements
- Period street lighting
- Street trees and appropriate landscaping
- Decorative street bollards
- Destination signing and kiosks



In addition, within the available right-of-way, there were low-impact stormwater quality treatments incorporated, such as rain gardens, into the esplanade areas.