

TYLin



**STATEMENT OF QUALIFICATIONS**

**Statewide On-Call Preliminary Engineering  
Prequalified List of Consultants for LPA  
Qualifications-Based Selection Contracts**

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

DECEMBER 27, 2022



December 27, 2022

William J. Oldenburg, PE  
Assist. Director of Project Development  
New Hampshire Department of Transportation

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

Dear Mr. Oldenburg:

T.Y. Lin International (TYLin) is pleased to submit this letter in response to NHDOT's request for the subject services. Our staff has extensive on-call experience and is eager to assist project sponsors on their important design projects. We have the technical expertise, capacity, and flexibility to jump right into any project, large or small, to ensure project sponsors meet schedule and budgetary requirements.

### The TYLin Team

We propose a team led by Kevin Ducharme, PE (NHDOT LPA Certified); Rick Hebert, PE; Thomas Errico, PE (NHDOT LPA Certified); and Shawn Davis, PE. This team is also complemented by Norman Baker, PE for Quality Management. Our team also includes three specialty design subconsultants who are experienced in NHDOT work and have previous LPA project experience. Our team members and responsibilities follow:

**TYLin (Falmouth, ME)** - project management services; highway design efforts; bridge design efforts; traffic control design; hydraulic calculations and analyses associated with bridges, waterways, and drainage structures; traffic analysis, overhead sign structure design, retaining wall design; technical writing assignments, including preparation of reports, procedures, etc.; assist in alternative procurement methods; and assist in coordination between the LPA and NHDOT

**GZA GeoEnvironmental, Inc (Keene and Bedford, NH)** – Geotechnical Investigations/Engineering

**Morris Communications (Kennebunkport, ME) (DBE)** – Public Outreach

**Pathways Consulting, LLC (Lebanon, NH) (DBE)** – Environmental Permitting, Survey, ROW Mapping

### Why Prequalify the TYLin Team?

TYLin offers project sponsors the ability to:

- ▶ work with a consultant with significant exposure to the importance of schedule and cost controls.
- ▶ take full advantage of lessons learned from other recent LPA projects.
- ▶ engage a team who is familiar with this type of work ensuring great communication and teamwork.
- ▶ add decades of constructability experience to assist the designs.
- ▶ apply our knowledge from other states and how new ideas may benefit the local areas.

We trust that you will find the TYLin Team well qualified to provide services for LPA projects. We enjoy working with our clients in a team environment to deliver successful projects that we can all be proud of. If you wish to contact me, please feel free to reach out to [Kevin.Ducharme@TYLin.com](mailto:Kevin.Ducharme@TYLin.com) or 207.347.4328.

Sincerely,

Kevin S. Ducharme, PE  
Program Manager and Principal-in-Charge, TYLin

## 2. PROJECT UNDERSTANDING AND APPROACH

T.Y. Lin International (TYLin) understands that The New Hampshire Department of Transportation (NHDOT) seeks to develop a prequalified long list of Highway and/or Bridge Design Engineering Services consultants to be available for Local Public Agencies to short list from in the development of QBS based Agreements in support of locally administered projects. This prequalified list will facilitate the efficient selection of consultants needed to provide Highway and/or Bridge Design Engineering Services for various LPA transportation projects located throughout the State. The Department will only be prequalifying firms, the Department will not be selecting or assigning work.

### MANAGEMENT & DELIVERY OF PROJECTS

TYLin is fully aware that the LPA process is documented in the LPA manual that can be found online at <https://www.nh.gov/dot/org/projectdevelopment/planning/lpa.htm>.

Given our southern Maine location, many municipalities in New Hampshire are located nearer to our Falmouth, ME office than several of our Maine projects. All design work will be developed in our Falmouth office allowing NHDOT municipalities easy access to the designers for formal and/or over-the-shoulder reviews at any time.

**TYLin understands the critical importance of on-time delivery of project services.** We start with closely coordinating with the Project Sponsor during the finalization of the project assignment scope of work to ensure all critical interim and final project milestones developed with NHDOT as part of the Project Schedule are clearly understood and accounted for in the proposed design schedule. **To keep projects on schedule from the time of inception, TYLin prepares a project specific design Work Plan at the initiation of all assignments that will align with the project schedule agreed to as part of the Local Project Agreement.** Potential impacts to the schedule are reviewed and discussed as they arise. Any major deviations are identified early on, and remedial measures are developed, discussed with NHDOT / Municipal staff and implemented immediately.

All TYLin staff are actively encouraged to keep the following guidelines of service at the forefront of their interactions with clients.

1. Innovate – look for better solutions.
2. Be practical and realistic.
3. Communicate early and often.

### TYLIN RANGE & DEPTH OF EXPERIENCE

#### WORLDWIDE QUALIFICATIONS

Founded over 60 years ago, TYLin has grown from a small minority-owned business enterprise to its an international, multi-disciplinary design firm ranking 31st on Engineering News Record's list of top 500 U.S. design firms and 8th in transportation design with over 3,000 employees globally. The mainstay of TYLin's New England experience is our 35+ years of providing highway and bridge design and planning services to agencies and municipalities throughout the region including: NHDOT, MaineDOT, Maine Turnpike Authority, Vermont AOT (VTrans), MassDOT, and numerous local municipalities from our Falmouth, ME office.

#### DEMONSTRATED RECORD OF PERFORMANCE SUCCESS

Our record of successful project performance is demonstrated by our continued reselection to on-call engineering design services contracts with public agencies and municipalities such as MaineDOT, Vermont AOT, MassDOT, and the Cities of Auburn, Lewiston, and Portland, ME.

- ▶ **North Haven "Beach Bridge", ME** | "As a Local Project Administrator with no background in civil engineering and working in a small community, I have found T.Y. Lin engineers not only patient and instructive, but flexible and creative in responding to local needs and concerns. It has been, and continues to be, a pleasure to work with them." - Joe Stone, North Haven Town Administrator
- ▶ **Belfast Harbor Walk, ME** | "T.Y. Lin did an exemplary job on delivery of this [LPA] project." - Aurele Gorneau, II, MaineDOT, Project Manager, Belfast Harbor Walk
- ▶ **Duxbury Emergency Bridge Replacement Project, VT** | TYLin completed final design in 6 weeks and delivered a quality set of plans and special provisions under budget.

- ▶ **Hackett Road Bridge, Auburn, ME** | TYLin was able to successfully pivot the project from a slow-paced repair project to a very fast-paced project with significant coordination with another consultant. TYLin used staff from other offices to support other ongoing design efforts in order to dedicate much of the local staff to this project during the critical few weeks of design and detailing efforts. Unique complications often found in bridge rehabilitation projects were overcome at a rapid pace.
- ▶ **Kittery/Portsmouth Piscataqua River Bridge Rehabilitation, ME and NH** | This award-winning project included complex coordination with multiple agencies and stakeholders. We also developed the construction contract documents for approximately 2% of the construction bid.

### AVAILABLE RESOURCES

We are very pleased to offer New Hampshire municipalities an outstanding group of senior design professionals with extensive bridge and highway design services experience with MaineDOT, VTrans, and MassDOT On-Call Contracts. These highly experienced staff members and their support teams have the capacity to provide the level of service to NH municipalities that all our clients have come to expect from us. TYLin's Falmouth office now totals 49 staff members:

- ▶ **Bridge Design:** 5 engineers
- ▶ **Transportation & Traffic Engineering:** 6 engineers
- ▶ **Site/Civil/Drainage Design:** 6 engineers
- ▶ **CADD:** 3 technicians
- ▶ **Paving design/Constructability Reviews/Construction Inspection:** 2 managers supported by 22 designers, resident engineers, senior inspectors, and inspectors
- ▶ **5 admin./business development** support staff

We can also draw on the resources of our more than 1000 technical experts located throughout the country for more technical support if needed.

TYLin uses MicroStation/Inroads as well as Auto-Cad/Civil 3D.

### CONTROLLING PROJECT SCHEDULE

Workload and specific project schedules will be discussed and updated as needed at Team progress meetings. Our proposed Project Manager will be in regular contact with the Project Sponsor and will provide regular email updates, progress reports, and schedules updates. TYLin is committed to providing on-time deliveries of all products. Potential impacts to the schedule will be reviewed and discussed as they arise. Any major deviations will be identified early on, and remedial measures will be developed, and implemented immediately.

### CONTROL AND MONITOR PROJECT COSTS

Successful control of project costs will be based on identifying design and construction optimization opportunities and working closely with the Local Sponsor to monitor the estimated construction cost of the project during the design process. Cost control review is an integral element of our overall design development to ensure that the overall budget for a project is not exceeded. Constructability and cost control recommendations will be integrated in order expedite the schedule and control scope and cost creep.

### CONTROL PROJECT QUALITY

TYLin will conduct internal design checks at chosen milestones, consistent with our company Quality Management Plan. Internal review comments are incorporated in the construction documents. All comments received from these reviews will be documented for final disposition with the reviewer prior to advancing to the next stage as logical. If needed to maintain the schedule, the design team will continue to advance the design of the project on all aspects not controlled by an outstanding review comment rather than wait for final resolution on all comments.

### ENSURE CONSTRUCTABILITY

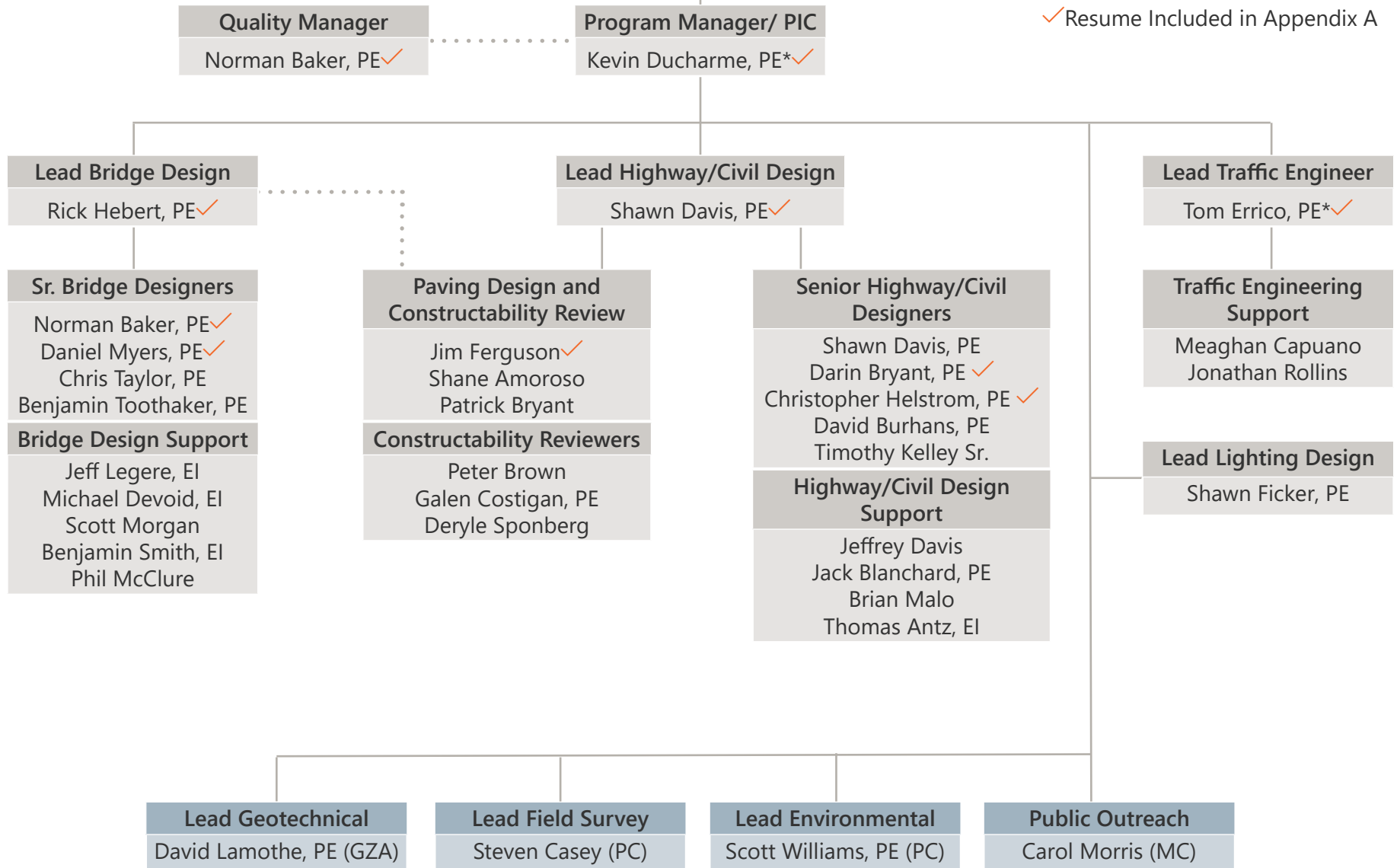
A key component to Quality Control is Constructability Reviews. Constructability reviews will allow our designers the opportunity to assemble plans and specifications that are clear to contractors and minimize the amount of risk that is included in their bid. These reviews occur early on in the design process to ensure that standard equipment can be utilized as much as possible to keep costs down.

### 3. Organizational Chart



**LEGEND**

- GZA - GZA GeoEnvironmental, Inc.
- PC - Pathways Consulting (DBE)
- MC - Morris Communications (DBE)
- \*New Hampshire LPA Certification
- ✓ Resume Included in Appendix A



# 4. Project Team

HIGHWAY AND BRIDGE DESIGN  
ENGINEERING SERVICES IN SUPPORT OF  
LPA PROJECTS

\*NH PE License

Key Personnel	Project Role	YEARS OF EXPERIENCE	YEARS WITH FIRM	PROJECT MANAGEMENT	HIGHWAY DESIGN	BRIDGE DESIGN	STRUCTURAL ENGINEER	ALT. PROCUREMENT METHODS	CORRIDOR STUDY PLANNING	BRIDGE INSPECTION	BRIDGE LOAD RATING	HYDROLOGY	ENVIRONMENTAL	TRAFFIC ANALYSIS	GEOTECHNICAL ENGINEER	SURVEYOR	PUBLIC INVOLVEMENT	LPA CERTIFIED
K. Ducharme*	Program Manager/PIC	34	34	✓	✓			✓	✓			✓					✓	✓
N. Baker	Quality Manager	42	9	✓		✓	✓	✓		✓	✓						✓	
R. Hebert*	Lead Bridge	32	30	✓		✓		✓		✓	✓	✓					✓	
S. Davis	Lead Highway	17	4	✓	✓			✓	✓								✓	
T. Errico*	Lead Traffic	37	23	✓	✓	✓		✓	✓					✓			✓	✓
C. Taylor*	Sr. Bridge Design	27	21	✓		✓	✓	✓		✓	✓						✓	
D. Myers*	Sr. Bridge Design	15	11	✓		✓	✓			✓	✓	✓					✓	
B. Toothaker	Sr. Bridge Design	12	9	✓		✓	✓			✓	✓						✓	
J. Legere	Bridge Design	23	4			✓	✓			✓	✓							
M. Devoid	Bridge Design	21	4		✓	✓	✓											
S. Morgan	Bridge Design	34	33		✓	✓		✓										
B. Smith	Bridge Design	3	3			✓	✓				✓							
P. McClure	Bridge Design	23	20		✓	✓		✓										
J. Ferguson	Constructability	44	11	✓	✓			✓										
S. Amoroso	Constructability	11	12	✓	✓													
P. Bryant	Constructability	10	10	✓	✓													
P. Brown	Constructability	38	4		✓	✓												
G. Costigan	Constructability	52	9		✓													
D. Sponberg	Constructability	53	12	✓	✓			✓										
D. Bryant	Sr. Highway	36	36	✓	✓				✓									✓
D. Burhans	Sr. Highway	24	23	✓	✓				✓			✓						
C. Helstrom	Sr. Highway	21	<1	✓	✓							✓						
T. Kelley Sr.	Sr. Highway	36	32		✓	✓		✓										
J. Davis	Highway Design	34	34		✓			✓										
J. Blanchard	Highway Design	10	10		✓													
B. Malo	Highway Design	7	7		✓													
T. Antz	Highway Design	4	4		✓	✓												
M. Capuano	Sr. Traffic	19	7		✓	✓			✓					✓			✓	
J. Rollins	Traffic Design	5	5		✓				✓					✓				
D. Lamothe	Geotechnical PIC	28	24	✓	✓	✓		✓		✓					✓		✓	
C. Snow	Geotech. Review	35	22	✓	✓	✓		✓		✓					✓		✓	

HIGHWAY AND BRIDGE DESIGN  
ENGINEERING SERVICES IN SUPPORT OF  
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\*NH PE License

		YEARS OF EXPERIENCE	YEARS WITH FIRM	PROJECT MANAGEMENT	HIGHWAY DESIGN	BRIDGE DESIGN	STRUCTURAL ENGINEER	ALT. PROCUREMENT METHODS	CORRIDOR STUDY PLANNING	BRIDGE INSPECTION	BRIDGE LOAD RATING	HYDROLOGY	ENVIRONMENTAL	TRAFFIC ANALYSIS	GEOTECHNICAL ENGINEER	SURVEYOR	PUBLIC INVOLVEMENT	LPA CERTIFIED
Key Personnel	Project Role																	
S. Williams	Environmental	25	16	✓	✓				✓			✓	✓		✓		✓	✓
S. Casey	Survey	32	13	✓												✓		
C. Morris	Public Outreach	31	16	✓													✓	

**SUBCONSULTANT PARTNERS**

GZA – GEOTECHNICAL SERVICES | *Located in Meredith, Keene, and Bedford, NH*

Founded in 1964 the company has grown into a major multi-disciplinary, employee-owned firm that focuses on environmental, geotechnical, ecological, water, and construction management services. With a staff of more than 700 people in 31 offices in the New England, Mid-Atlantic and Great Lakes regions of the United States. GZA currently has a task order contract with NHDOT to provide geotechnical engineering services for roadway and bridge projects. GZA has extensive experience with LPA transportation projects in New Hampshire including, Greenhill Road Bridge over the Isinglass River, North Pembroke Road Bridge over Soucook River, Academy Street Bridge over Durkee Brook and Court Street Bridge over Durkee Brook, Hannah Nutter Road Bridge, Horace Greeley Road Bridge Over Pulpit Brook, Sewalls Falls Road Bridge, and Loon Mountain Bridge.

PATHWAYS CONSULTING (DBE) – ENVIRONMENTAL ENGINEERING, SURVEY, AND RIGHT-OF-WAY SERVICES | *Located in Lebanon, NH*

Pathways Consulting, LLC provides land use planning, surveying, civil and environmental engineering, and construction assistance. Recent LPA design and construction administration services projects include Route 120 Pedestrian and Bicycle Improvement Project, Lebanon, NH - City of Lebanon; Elkins Road/Wilmot Center Road Transportation Enhancement Project, New London, NH - Town of New London; and B.E.S.T Avenue Safe Routes to School, Merrimack Valley School District - Village of Penacook, City of Concord, NH. We are familiar with all aspects of the LPA process including scoping/budgeting, surveying, environmental analysis, planning, design, historical and archaeological assessments, permitting, contract documents, bidding, and construction observation.

MORRIS COMMUNICATIONS (DBE) – PUBLIC OUTREACH | *Located in Kennebunkport, ME*

In the past 16 years, Morris Communications has led community outreach for municipal and state transportation and planning projects in dozens of New England communities. Morris’s work focuses on communities looking to make changes in transportation infrastructure or to broaden the transportation uses available to the community. Typically, growth, mobility and quality of life issues are key concerns for the community. Skills include identifying and reaching out to key audiences, facilitating productive meetings, creating layperson friendly project descriptions, managing conflict, creating user-friendly social media and providing compelling final report documents. Morris’s work in New Hampshire has included extensive experience in Portsmouth-area communities as part of the team for the Memorial Bridge replacement. Planning work for NHDOT and NHDRED has taken place in communities such as Keene, Lancaster, Concord, Exeter, Lebanon, Antrim, Seabrook, Berlin and Nashua.

## 5. References

Municipality/Agency Name and Location	Contact Name, Title, Tel#, Email	Associated Projects
<b>City of Auburn</b> 60 Court Street Auburn, ME 04210	<b>Dan Goyette</b> City Engineer (207) 333.6601 dgoyette@auburnmaine.gov	<ul style="list-style-type: none"> <li>▶ Rodman Road Paving Project (LPA)</li> <li>▶ Route 4 Design and Paving (LPA)</li> <li>▶ Helm Bridge</li> <li>▶ New Auburn Village Master Plan</li> </ul>
<b>MaineDOT</b> 24 Child Street, Augusta, ME 04330	<b>Nate Howard</b> Project Manager, Bureau of Planning (207) 624-3310 Nathan.Howard@maine.gov	<ul style="list-style-type: none"> <li>▶ Route 112/I-95 Exit 36 Area Transportation Study</li> <li>▶ Wells Route 109 Corridor Transportation Study</li> </ul>
<b>City of Saco</b> 300 Main Street Saco, ME 04072	<b>Joseph Laverriere</b> City Engineer (207) 284-6641 jlaverriere@sacomaine.org	<ul style="list-style-type: none"> <li>▶ Route 112/I-95 Exit 36 Area Transportation Study</li> <li>▶ Route One South Complete Streets Plan (Saco and Scarborough)</li> </ul>
<b>Additional Reference if desired</b>		
<b>Town of Yarmouth</b> 200 Main St., Yarmouth, ME 04096	<b>Steve Johnson</b> Town Engineer (207) 846-2401 x 224 SJohnson@yarmouth.me.us	<ul style="list-style-type: none"> <li>▶ Beth Condon Trail Design and Construction Inspection (LPA)</li> </ul>



## 6. Appendix

### RESUMES

<p><b>Kevin Ducharme, PE</b> <i>Program Manager and Principal-in-Charge</i></p>	<p><b>Certifications &amp; Registrations:</b> Professional Engineer: NH   ME   VT   MA   CT   RI   WV   OR   VA   FL   NY   OH <b>NHDOT LPA Certified</b> MaineDOT LPA Certified</p>	<p><b>Total Experience:</b> 34 years <b>Education:</b> B.S. Civil Engineering, Purdue University, 1988</p>
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In his nearly 35 years at TYLin, Mr. Ducharme he has worked as Project Manager, Program Manager, and Principal-in-Charge for projects with various agencies including; Maine Turnpike Authority, MaineDOT, and Massachusetts DOT. He has also been involved with numerous projects for other public agencies across New England and the nation. Kevin’s broad range of experience includes project management, roadway geometrics and drainage design, stormwater management, utility coordination, parking and grading design and layout, construction phasing and maintenance of traffic design, pedestrian facilities, hydraulic and scour evaluation/mitigation, and environmental mitigation. Relevant projects/programs that Kevin has experience with include:

- ▶ **Piscataqua River Bridge Rehabilitation, Kittery, ME and Portsmouth, NH | *Lead Design Engineer for Maintenance of Traffic***
- ▶ **Millyard Bridges, Manchester, New Hampshire (NHDOT) | *Peer Review Engineer***
- ▶ **Maine Turnpike Authority On-Call Bridge & Highway Design Services Contract (2012 - Present) | *Program Manager***
- ▶ **MaineDOT On-Call Bridge, Highway & Multi-modal Design Services Contract (1994 - Present) | *Principal-In-Charge***
- ▶ **MassDOT On-Call Bridge Design Services Contracts (1996 to 2004 & 2014 to 2021) | *Principal-In-Charge***
- ▶ **Frank J. Wood Bridge Replacement, Brunswick-Topsham, ME | *Quality Reviewer***
- ▶ **Route 1 Roadway Reconstruction/Rehabilitation, Whiting/Edmunds TWP, ME | *Quality Reviewer***

<p><b>Norman Baker, PE</b> <i>Quality Manager</i></p>	<p><b>Certifications &amp; Registrations:</b> Professional Engineer: ME</p>	<p><b>Total Experience:</b> 42 years <b>Education:</b> B.S. Civil Engineering, University of Maine at Orono, 1979</p>
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With 32 years of experience at MaineDOT prior to joining TYLin, Mr. Baker brings a wealth of knowledge and skills in the areas of quality control, structural design, project and team management, and organizational leadership. Among his most notable achievements at MaineDOT were his work with TYLin as the Project Manager for the Casco Bay Bridge between Portland and South Portland, ME, his management of the Locally Administered Projects program, and the revitalization of the design-build contracting process. Norm’s relevant TYLin experience includes:

- ▶ **Piscataqua River Bridge Rehabilitation, Kittery, ME and Portsmouth, NH | *Sr. Project Engineer***
- ▶ **Frank J. Wood Bridge Replacement, Brunswick-Topsham, ME | *Project Manager for Phase I***
- ▶ **2 Bridge Repairs, Falmouth to New Gloucester, ME | *Project Manager***
- ▶ **5 Bridge Repairs, Falmouth to West Gardiner, ME | *Project Manager***
- ▶ **Bernard Lown Peace Bridge Rehabilitation Phases I-III, Lewiston-Auburn, ME | *Quality Assurance Manager***
- ▶ **Penobscot River Bridge, Howland-Enfield, ME | *Project Manager***
- ▶ **Blackstrap Road Underpass, Falmouth, ME | *Technical Advisor/Quality Reviewer for services on this bridge rehabilitation and highway approach work project.***

<b>Shawn Davis, PE</b> <i>Lead Highway/Civil Design</i>	<b>Certifications &amp; Registrations:</b> Professional Engineer: ME Certificate, National Transportation Leadership Institute, 2018, Indiana University, AASHTO Sponsored MaineDOT LPA Certified	<b>Total Experience:</b> 17 years <b>Education:</b> B.S. Civil Engineering, University of Maine at Orono, 2005
<p>Mr. Davis joined TYLin after a fourteen year career with the Maine Department of Transportation. Shawn’s strong project Management skills and highway design experience were honed at MaineDOT where he served as a lead designer for several complex roadway design projects in the northern section of Maine including Wallagrass Route 11 Reconstruction, and the Caribou Connector new construction, and as Senior Project Manager in the Eastern Region for many highway improvement projects.</p> <ul style="list-style-type: none"> <li>▶ <b>Piscataqua River Bridge Rehabilitation, Kittery, ME and Portsmouth, NH   Project Engineer</b></li> <li>▶ <b>Route 109/Exit 19 Improvements, Wells, ME   Project Engineer</b></li> <li>▶ <b>Route 103/Government Street Intersection Improvement Project, Kittery, ME   Lead Highway Engineer for designing improvements that accommodate new and upgraded sidewalks and afford on-street parking along Route 103 in association with signal upgrades and mobility improvements.</b></li> <li>▶ <b>Route 26/North Raymond Road Traffic Signal Design, Gray, ME   Lead Highway Engineer for creating geometric improvements at the intersection and addition of a center turn lane to improve mobility.</b></li> <li>▶ <b>2004 – Oct 2018: Engineer for MaineDOT. Most recent position at MaineDOT was Transportation Resource Manager for MaineDOT in Bangor.</b></li> </ul>		

<b>Rick Hebert, PE</b> <i>Lead Bridge Design</i>	<b>Certifications &amp; Registrations:</b> Professional Engineer: NH   ME   VT   MA	<b>Total Experience:</b> 32 years <b>Education:</b> B.S. Civil Engineering, University of Maine, 1989; M.S., Civil Engineering, University of Maine, 1993
<p>Mr. Hebert has more than 30 years of specialized experience leading multi-discipline project teams on bridge project assignments under on-call programs. His experience includes dozens of projects under these programs and includes work for the MaineDOT, MassDOT, and Vermont Agency of Transportation. His background includes the inspection, analysis, design, and preparation of construction documents for a variety of steel, timber, and concrete bridge structures.</p> <ul style="list-style-type: none"> <li>▶ <b>Millyard Bridges, Manchester, New Hampshire   Project Manager/Senior Bridge Engineer</b></li> <li>▶ <b>Route 12 over Cold River, Walpole, NH   Project Engineer</b></li> <li>▶ <b>Frank J. Wood Bridge Replacement Inspection and Phase I, Brunswick-Topsham, ME   Senior Bridge Engineer</b></li> <li>▶ <b>New Road over West Branch of the Housatonic River, Pittsfield, MA   Project Manager/Senior Bridge Engineer</b></li> <li>▶ <b>Hamlin Street over Acushnet River, Acushnet, MA   Project Manager / Senior Project Engineer</b></li> <li>▶ <b>Goodwin Bridge, Mariaville, ME   Senior Project Engineer</b></li> <li>▶ <b>U.S. Route 2 Bridge No. 44 over New England Central Railroad and I-89, Middlesex, VT   Project Manager/Senior Project Engineer</b></li> <li>▶ <b>Penobscot River Bridge, Howland-Enfield, ME   Project Manager/Senior Project Engineer</b></li> </ul>		

<b>Tom Errico, PE</b> <i>Lead Traffic Engineer</i>	<b>Certifications &amp; Registrations:</b> Professional Engineer: NH   ME   VT   MA <b>NHDOT LPA Certified</b> MaineDOT LPA Certified	<b>Total Experience:</b> 37 years <b>Education:</b> M.S., Civil Engineering, Northeastern University, Boston, MA, 1996; B.S., Civil Engineering, Northeastern University, Boston, MA, 1985
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Mr. Errico’s background in traffic engineering includes access management, corridor studies, traffic operations studies, pedestrian studies, parking studies, safety evaluations, and traffic impact studies. Tom has significant experience in designing traffic signals, developing and maintaining traffic plans, and determining intersection and roadway design requirements for highway projects, including auxiliary lanes, bicycle and pedestrian facilities, signing, and traffic control. He has worked extensively with traffic engineering software such as SYNCHRO, SimTraffic, HCS, TRANSYT-7F, PASSER, and CORSIM. Relevant project experience includes:

- ▶ **Route 111 Corridor Study, Windham, NH | Project Manager/Traffic Engineer**
- ▶ **Route 111/Kimball Hill Road Traffic Study, Hudson, NH | Traffic Engineer**
- ▶ **Piscataqua River Bridge Rehabilitation, Kittery, ME and Portsmouth, NH | Traffic Engineer**
- ▶ **Saco Route 112/I-95 Exit 19 Area Transportation Study, Saco, ME | Project Manager**
- ▶ **Route 109/Exit 19 Improvements, Wells, ME | Traffic Engineer**
- ▶ **Skowhegan 2nd Bridge Feasibility and Planning Study, ME | Project Manager**
- ▶ **Maine Street Feasibility Study, Brunswick, ME | Project Manager**

<b>Daniel Myers, PE</b> <i>Lead Traffic Engineer</i>	<b>Certifications &amp; Registrations:</b> Professional Engineer: ME   OK MaineDOT LPA Certified	<b>Total Experience:</b> 15 years <b>Education:</b> B.S. and M.S., Civil Engineering, Oklahoma University, May and Dec 2006 respectively
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Mr. Myers joined TYLin’s structural engineering group from the Oklahoma Department of Transportation, where he was a structural engineer in the bridge division. He brings significant technical capabilities for a wide variety of complex structural analysis, design, and detailing issues, and also brings practical field experience as a construction project resident and inspector. He has experience as project manager and lead bridge engineer, responsible for managing work efforts, coordinating with clients, and presenting projects to the public. He has technical experience in a wide range of areas, including steel and prestressed concrete bridge design and detailing, bridge foundation design, bridge hydraulics modeling, load rating a range of bridge structure types, construction project inspection, post-tensioning of precast structures, finite element analysis, concrete material research, and sign structure analysis.

- ▶ **Piscataqua River Bridge Rehabilitation, Kittery, ME and Portsmouth, NH | Project Manager**
- ▶ **Frank J. Wood Bridge Replacement Inspection and Phase I, Brunswick-Topsham, ME | Lead Bridge Engineer**
- ▶ **Northern Bridge Repairs, Statewide, ME | Project Manager**
- ▶ **Bridge Load Ratings, Statewide, ME | Project Manager**
- ▶ **Bernard Lown Peace Bridge, Lewiston-Auburn, ME | Lead Bridge Engineer**
- ▶ **Hackett Road Bridge Rehabilitation - Auburn, ME | Project Manager**

<b>Jim Ferguson</b> <i>Lead Paving Design &amp; Constructability Review</i>	<b>Certifications &amp; Registrations:</b> MaineDOT LPA Certified NETTCP Paving Inspector	<b>Total Experience:</b> 44 years
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Mr. Ferguson has nearly 35 years of experience with the MaineDOT, 28 years directly related to highway related construction. His experience ranges from on the ground inspection of all construction activities to managing projects at the project resident and project manager level. Jim has worked on many of the largest projects that have been constructed under MaineDOT management over the years. As a TYLin team member he provides valuable input by reviewing all design plans for constructability. His depth of experience provides solutions that often improve project quality without increasing cost.

- ▶ **Region 1 Paving Projects | Project Manager**
- ▶ **Route 1 Roadway Reconstruction/Rehabilitation, Whiting/Edmunds TWP, ME | Constructability Review**
- ▶ **Paving Project – Mile Marker 57 – 59.5. | Project Manager who oversaw design and contract development to ensure conformance with MTA and MaineDOT standards.**
- ▶ **Blackstrap Road Underpass, Falmouth, ME | Constructability Review and utility coordination services on this bridge rehabilitation and highway approach work project.**
- ▶ **Exit 52, Bridge Rehabilitation, Falmouth, ME | Constructability Review and utility coordination services on this bridge rehabilitation and highway approach work project.**
- ▶ **I-78/SR61 Interchange Improvements and I-78 Mainline Structure Widening/Replacement, Berks County, PA | Constructability Review**

<b>Darin Bryant, PE</b> <i>Senior Highway Design</i>	<b>Certifications &amp; Registrations:</b> Professional Engineer: ME   DC   VT	<b>Total Experience:</b> 36 years
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Mr. Bryant joined TYLin in 1986. He has been involved in both the roadway and bridge approach design fields since joining the firm. His roles and responsibilities include oversight of bridge approach design including erosion protection and stormwater control, and maintenance of traffic design. His experience includes a variety of projects ranging from the planning phase through permitting to the final P.S. & E. stage of development. Currently, he is a Senior Roadway Engineer and Project Manager in our Falmouth office.

- ▶ **Statewide Southeast Sign Replacement Project, Statewide, VT | Project Manager**
- ▶ **Frank J. Wood Bridge, Brunswick - Topsham, ME | Project Manager**
- ▶ **Roadway and Safety Engineering Services Retainer Contract | Program Administrator**
- ▶ **Route 7 Intersection Improvements, Colchester, VT | Project Manager and Senior Project Engineer**
- ▶ **New Road over West Branch of the Housatonic River, Pittsfield, MA | Senior Project Engineer responsible for review of roadway approach, maintenance of traffic, and erosion protection/sediment control design for the project.**

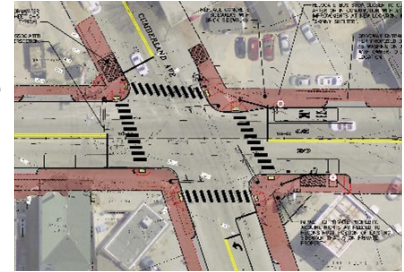
<b>Christopher Helstrom, PE</b> <i>Senior Highway Design</i>	<b>Certifications &amp; Registrations:</b> Professional Engineer: ME	<b>Total Experience:</b> 21 years
<p>Mr. Helstrom recently joined TYLin after 10 years at MaineDOT as a lead highway designer, prior to which he worked in the private sector across New England as a geotechnical engineer. He has extensive experience in highway reconstruction, pavement section and drainage design, slope stabilization, and in-stream culvert replacement. Mr. Helstrom has designed many complex projects involving full depth reconstruction, travel lane and shoulder reconfiguration, guardrail upgrades, erosion control, temporary maintenance of traffic and detour planning, ADA enhancements, and multi-use trail construction. Over the last decade he has been the Engineer of Record on several MaineDOT projects and is experienced in the associated environmental permitting, right-of-way acquisition, and geotechnical considerations.</p> <ul style="list-style-type: none"> <li>▶ <b>Lincoln Connector Trail, Washington D.C.   Lead Designer</b></li> <li>▶ <b>Route 11 Soucy Hill Reconstruction, T14-R6 and T15-R6, ME   Lead Designer</b></li> <li>▶ <b>Route 1 Culvert Rehabilitation and Drainage Improvements, Grand Isle, ME   Project Engineer</b></li> <li>▶ <b>Route 164 Culvert Replacement, Presque Isle, ME   Engineer of Record</b></li> <li>▶ <b>2012 – June 2022: Engineer for MaineDOT. Most recent position at MaineDOT was Transportation Engineer II</b></li> </ul>		

## APPLICABLE WORK EXPERIENCE

### EXPERIENCE WITH LOCALLY ADMINISTERED PROJECTS

#### Washington Avenue Roadway/Intersection, Traffic Signals, Sidewalk and Streetscape Project | Portland, Maine

The project area includes the intersections of Washington Avenue with both Congress Street and Cumberland Avenue, the segment between the two intersections, and the segment between the Cumberland Avenue intersection and a point approximately 225 feet to the north (just north of the Coffee by Design on Washington Avenue). The scope of work for the two intersections includes 50% design for ADA-compliant curb ramps, replacement of traffic signal equipment and updates to the signal timing, roadway striping, and curb and drainage modifications associated with these and other safety or streetscape improvements.



For the segments between intersections, the scope includes 50% design of sidewalk and streetscape improvements, including rehabilitation and/or reconstruction of sidewalks and curbing, street lighting, street trees, bus shelters, and other streetscape enhancements. This includes evaluating and modifying as necessary driveway entrances for access management purposes, as well as ADA-compliance. Improvements to roadway striping and signage, curb reveal, and associated drainage modifications are also included. Finally, identification of the level of roadway rehabilitation necessary is also within the scope of this project.

#### Belfast Harbor Walk | Belfast, Maine

TYLin provided trail design and Local Project Administration expertise on Segments 1-4 of the Belfast Harbor Walk. This paved shared-use trail will be 10-12 feet in width and run approximately 0.6 miles near the shoreline of the City of Belfast within existing parks, street rights-of-way, and other City property. The work included walkway designs, solutions to existing drainage issues, bicycle/pedestrian issues and safety, and traffic calming. A 95-ft-long timber boardwalk ramp was designed as part of this project.



#### Helm Bridge | Auburn, Maine

TYLin provided bridge design and construction inspection services for the replacement of the existing single lane bridge on a local town owned dead end roadway. TYLin developed a precast bridge system to minimize road closure duration to 2 weeks. The bridge provides access to two gravel supply businesses and two residences. The low traffic volumes did not warrant the replacement of the existing bridge with a wider two-lane bridge. A single lane temporary bridge was used to maintain traffic during construction.



#### Route 4 Paving | Auburn, Maine

This Locally Administered Project was a shim, overlay and shoulder rehabilitation project to reconfigure the lanes in order to incorporate a new two-way center left turn lane. TYLin provided a design to reduce accidents on this heavily travelled section of Route 4. TYLin completed the design and provided the Inspection during construction, bringing the project to a successful completion on schedule and within budget.



## Helm Bridge | Auburn, Maine

TYLin provided preliminary engineering studies and final design of the replacement structure through the state's Locally Administered Project process. TYLin was responsible for maintaining the general aesthetics of the original structure and accommodating island access constraints and costs. single lane, two span replacement structure is 17.33 ft wide and 95 ft long normal abutments. TYLin investigated and suggested the use of GRS abutments to reduce project cost and schedule by eliminating the need for costly cast in-place concrete foundations with cofferdams. TYLin also suggested the re-use of a granite pier to further reduce costs and allow for shorter beams compared to a single span structure.



## Beth Condon Memorial Pathway | Yarmouth, Maine

This contract included a feasibility study for use of "road diet" principles to accommodate a pedestrian/bicycle path along the remaining portion of the Phase One corridor. It also included final path design, drainage design, signing and utility coordination and traffic analyses at the East Main Street Ramp/Route One intersection to developed plans for the proposed lane reduction/stripping revisions. Necessary signing for project safety and traffic signal modifications to provide for appropriate phasing and timing for the one-lane southbound scenario were also included in this LPA project.



## Rodman Road Resurfacing | Auburn, Maine

TYLin provided Preliminary Engineering for Rodman Road Resurfacing. This LPA project began at the intersection of Washington Avenue South and continuing 1.03 miles to the intersection of Hotel Road. The project included pavement resurfacing, striping (conforming to the City's complete street policy), and gravel shoulders.



## SELECT NEW HAMPSHIRE EXPERIENCE

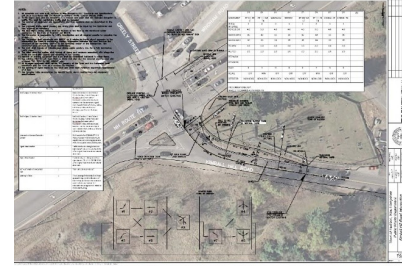
### Route 111 Corridor Study | Windham, New Hampshire

TYLin is currently working to identify priority needs that will improve the safety and mobility of all users. The study will consider erosion control measures, traffic control measures, drainage, hydraulic studies, treatments to minimize environmental impacts, traffic counts, traffic analysis, highway signs, traffic control signals, roundabouts and pavement markings. The study also includes transit as well as pedestrian and bicycle facility considerations.



## Route 111/Kimball Hill Road Traffic Study | Hudson, New Hampshire

As a subconsultant, TYLin provided traffic engineering services in conjunction with implementation of improvements at the Route 111/ Kimball Hill Road intersection in Hudson. Work included: developing existing design hour traffic volumes; conducting a Synchro analysis; developing traffic signal modification plans; providing traffic engineering support during construction; and final inspection of traffic signal modifications including field adjustment of timings.



## Manchester Millyard Bridges | Manchester, New Hampshire

As a subconsultant, TYLin performed investigations and final design and traffic management plans for two bridges (I-293 over Northbound On-Ramp and Northbound On-Ramp over South Branch Piscataquog River). The preliminary design phase considered several bridge rehabilitation and replacement types and span arrangements. TYLin recommended a superstructure replacement with modified bridge end details for the On-Ramp Bridge.



## ADDITIONAL RELEVANT EXPERIENCE

### BRIDGE REPAIR, REHABILITATION & REPLACEMENT DESIGN EXPERIENCE

#### Maine Turnpike Authority (MTA):

Under our recent Bridge and Highway Design Services On-Call contract, TYLin has completed the following bridge rehabilitation projects:

- ▶ Northern Bridge Repairs
- ▶ Bridge Repairs – Auburn to Litchfield
- ▶ Dennett Road Bridge – Kittery
- ▶ Ferry Road Bridge – Lewiston
- ▶ 2 Bridge Repairs - Gray
- ▶ Bridge Repairs 1 – North of Portland
- ▶ Bridge Repairs 2 – North of Portland
- ▶ Piscataqua River Bridge Rehabilitations – Falmouth
- ▶ Blackstrap Road Bridge Rehabilitation – Falmouth
- ▶ Exit 52 Bridge Rehabilitation – Portland

TYLin has also completed the Biddeford Interchange Ramp Bridge over the Turnpike mainline associated with the Biddeford Interchange Improvement project.

#### MaineDOT:

TYLin has provided bridge design services to MaineDOT for nearly 40 years, with 35+ MaineDOT bridge replacement and rehabilitation projects to our credit. Recent MaineDOT On-Call bridge projects include:

- ▶ Piscataqua River Bridge Rehabilitation – Kittery/Portsmouth
- ▶ Frank J Wood Bridge Replacement over the Androscoggin River – Brunswick/Topsham
- ▶ Peace Bridge Rehabilitation over the Androscoggin River – Lewiston/Auburn
- ▶ Grist Mill Bridge Replacement – Hampden
- ▶ New Crane Bridge Replacement – Whiting
- ▶ Goodwin Bridge Replacement - Mariaville
- ▶ Upper Canal and Morse Bridge Rehabilitations - Rumford
- ▶ Bridge Load Ratings - Statewide



### **Vermont Agency of Transportation (VTrans):**

TYLin has worked with VTrans on bridge design projects out of our Falmouth office since 1988. The scopes of work for these projects have varied widely and include bicycle/pedestrian and vehicular bridge replacement design, bridge rehabilitation design, and bridge repairs (including wearing surface and membrane replacements). Our most recent bridge projects under their on-call program include:

- ▶ VT Route 100 Emergency Bridge Replacement - Duxbury
- ▶ VT Route 15A over Lamoille R. - Morrystown
- ▶ Bridges 20 and 58 - Barton Village
- ▶ VT Route 110 Bridges 9 and 10 - Chelsea
- ▶ US Route 2 over I-89 and NECRR – Middlesex

### **Massachusetts Department of Transportation (MassDOT):**

TYLin is providing design services to MassDOT for bridge replacements and rehabilitations as part of their Bridge Design Master Services Agreement. Replacements and rehabilitations TYLin has designed include the following projects:

- ▶ Hamlin Street over Acushnet River - Acushnet
- ▶ New Road over Housatonic River - Pittsfield
- ▶ Longley Road over Malpus Brook - Shirley

### **MAINLINE AND INTERCHANGE PAVING DESIGN EXPERIENCE**

TYLin has completed the following recent paving projects:

- ▶ MTA Mile 74.9 to Mile 79.8 Paving
- ▶ Rodman Road Overlay – City of Auburn/ MaineDOT
- ▶ Three Pavement Overlay Projects - MaineDOT
- ▶ MTA Mile 57 to Mile 59 Paving
- ▶ Route 4 Safety and Paving Project, City of Auburn/MaineDOT
- ▶ Wilmington-Brattleboro, VT Paving/Safety Project

Our Paving Design Lead, Jim Ferguson, brings to the NHDOT his 33 years of experience at MaineDOT with paving projects of all types. He

fully understands pavement design elements, the paving process, and the various challenges and solutions to common paving project issues.

### **TRANSPORTATION STUDY EXPERIENCE**

TYLin staff has managed and/or participated in a number of transportation studies including:

- ▶ Saco, ME Route 112/I-95 Exit 36 Area Transportation Study
- ▶ Skowhegan, ME 2ND Bridge Feasibility Study
- ▶ Wells, ME Route 109 Transportation Study
- ▶ Bath, ME South End Transportation Study
- ▶ Auburn, ME Court Street Improvement Study
- ▶ Brunswick Maine Street Feasibility Study
- ▶ Saco/Scarborough, ME Rte 1 Complete Streets Plan
- ▶ Portland, ME Area Interchange Study
- ▶ Gray/New Gloucester, ME Access Study
- ▶ Central York County ME Connections Study
- ▶ Gray, ME Route 26 Corridor Study
- ▶ Falmouth, ME Route 1 Infrastructure Study evaluating alternative improvements at the Falmouth Route 1 Spur Interchange
- ▶ Falmouth, ME Route 100 Corridor Study identified improvement needs at the Exit 53 intersection
- ▶ Bangor, ME Broadway Corridor Study for BACTS assessed improvement needs at the I-95 interchange, and
- ▶ Assisted PACTS with the update of their Long-Range Transportation Plan that includes consideration of future facility opportunities.

### **INTERCHANGE & INTERSECTION IMPROVEMENT DESIGN EXPERIENCE**

TYLin's Maine-based staff has worked on a variety of interchange and intersection improvement projects over the past 25 years including:

- ▶ Maine Turnpike Route 109/Exit 19 Area Improvements – Wells
- ▶ Maine Turnpike Kittery Shoulder Improvements to Exit 2
- ▶ Maine Turnpike Route 100/Exit 53 Traffic Signal Study

- ▶ Maine Turnpike Exit 19/Route 109 Intersection Improvements – Wells
- ▶ MaineDOT Route 26/North Raymond Road – Gray
- ▶ Hotel Road/ Stevens Avenue – Auburn, ME
- ▶ I-64 MacCorkle I/C - South Charleston, WV
- ▶ Route 27/244 Interchange Improvements – Arlington, VA
- ▶ Caribou, ME Connector Interchange Design-Build
- ▶ Maine Turnpike Biddeford Interchange
- ▶ IDEXX TMP Improvements on County Road, Spring Street and Saco Street in Westbrook, ME

These projects involved significant traffic to be accommodated, numerous stakeholders (including utilities and community members) to be coordinated, and unique design solutions to reduce right-of-way impacts, reduce construction schedules and save cost.

#### OTHER HIGHWAY DESIGN/STUDY EXPERIENCE

##### **MaineDOT:**

TYLin has been part of MaineDOT's GCA program for highway design since its inception in 1994 and we have worked on a variety of local and regional roadway design projects from large to small. In fact, we have been providing highway design services to MaineDOT for over 30 years, working on over 60 projects in that time. Recent MaineDOT highway projects to our credit include:

- ▶ US Route 1 Reconstruction/Rehabilitation – Whiting/Edmunds
- ▶ US Route 1 Rehabilitation – Frenchville/Ft. Kent
- ▶ US Route 201 Rehabilitation - Caratunk
- ▶ Route 109 Rehabilitation - Acton
- ▶ Route 1A Rehabilitation – Hampden

In addition, TYLin has provided lighting design, utility coordination, and ROW mapping services to MaineDOT as part of our MaineDOT highway and bridge design projects for nearly 30 years, working on over 40 projects in that time including projects such as US Route 2 Roadway Improvements in Bethel-Gilead, the Caribou Connector, and other major roadway projects.

##### **Vermont Agency of Transportation (VTrans):**

TYLin has worked with VTrans on bicycle/ pedestrian facility and roadway design projects out of our Falmouth office since 1988. The scopes of work for these projects have included bike/ pedestrian path design, intersection and sidewalk design, roadway design, pavement management, signing, permitting, and intersection signalization. Projects include:

- ▶ 6 Signing Improvement Projects - Statewide
- ▶ Route 7/Pinnacle Road Intersection Improvements – Rutland
- ▶ Roadway Slope Stabilization – Woodstock
- ▶ Culvert Replacement – Woodstock and Winhall
- ▶ Redmond Road Bicycle/Pedestrian Path – Williston
- ▶ Roadway approach design for over 15 bridge replacement/rehabilitation projects

TYLin has been involved in the VTrans' On-call Highway Design program for over 16 years, completing 12 projects in that time. These projects involved roadway widening, intersection reconfiguration, mitigation of high crash locations, sign improvement, and bicycle & pedestrian facility design. We also maintain a 3-Year Roadway and Safety On-Call Contract with VTrans.