

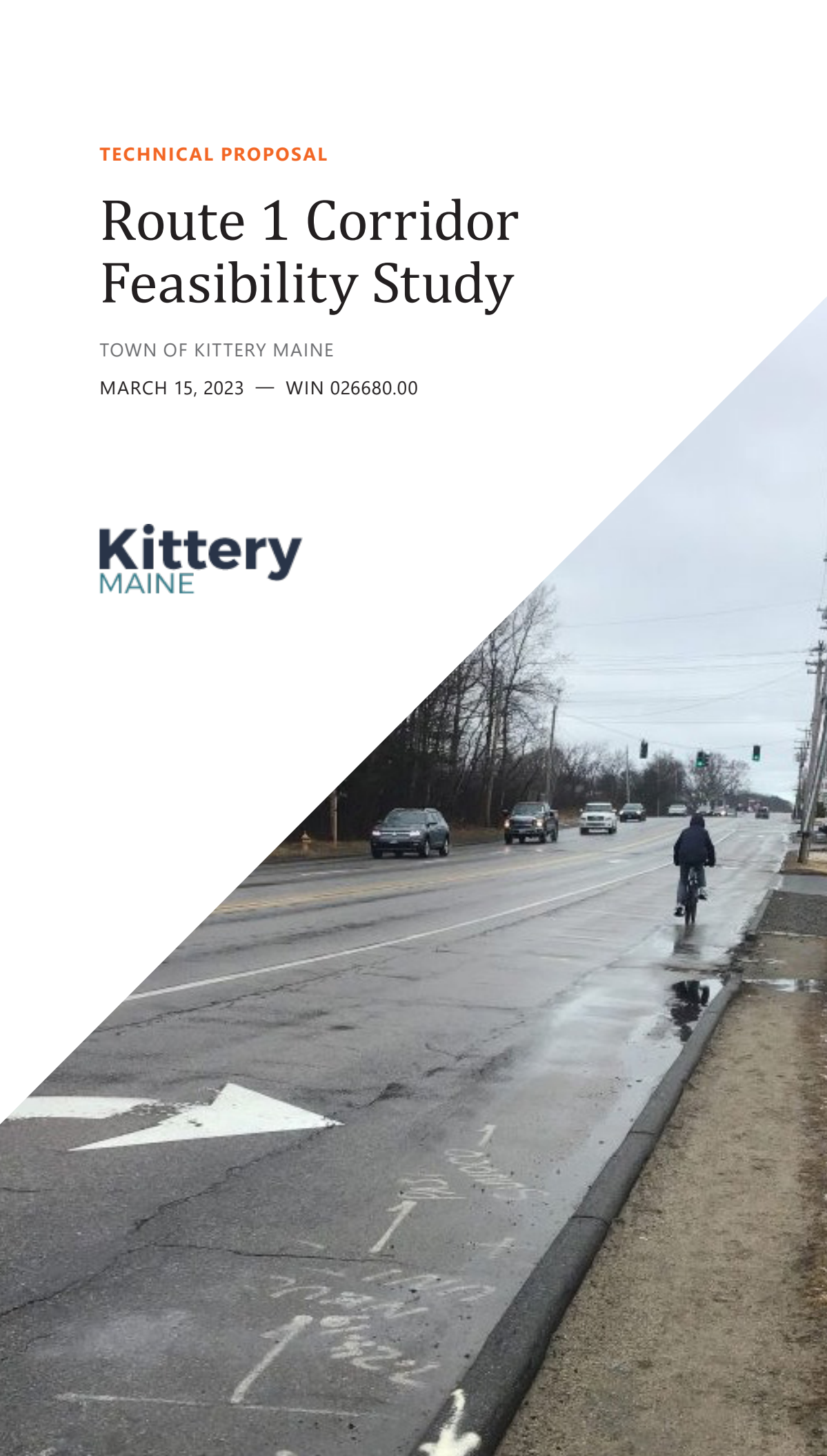
TECHNICAL PROPOSAL

Route 1 Corridor Feasibility Study

TOWN OF KITTERY MAINE

MARCH 15, 2023 — WIN 026680.00

Kittery
MAINE



TYLin



March 15, 2023

Kittery Town Hall
Town Manager's Office
200 Rogers Road
Kittery, ME 03904
ATTN: **Jason Garnham, Director of Planning & Development**

Subject: **Request for Proposal, Route 1 Corridor Feasibility Study**

Dear Jason,

In response to your RFP, TYLin is pleased to submit the attached Technical Proposal and our separately submitted Cost Proposal for the Route 1 Corridor Feasibility Study. Our Technical Proposal outlines our exceptional technical expertise in multimodal planning and design combined with our deep understanding of local conditions.

Why Select our Team?

- ▶ I have lived in York County for over 30 years and excited about the opportunity to meld my local knowledge of the corridor with my technical background as a Complete Streets expert. I have witnessed the evolution of the corridor and intimately understand the challenges the Town faces with on-going traffic congestion and providing a balanced transportation system for all users. I also have a deep understanding of the unique transportation conditions that exist in Kittery, through our work on the Foreside Land Use, Parking and Transportation Study; Transportation studies for the Portsmouth Naval Shipyard; and traffic management efforts associated with the recent work on the I-95 Piscataqua River Bridge project.
- ▶ TYLin and Mitchell Razor have successfully completed award winning studies in Maine. Our relationship and collaboration result in consensus-based recommendations that are community supported and implementable.
- ▶ TYLin is a national practice leader in Complete Streets and has the pulse on current state of the art planning tools for implementing bicycle and pedestrian infrastructure.
- ▶ TYLin has been a partner with MaineDOT on design, planning, and construction projects. We have a deep understanding of their standards, practices, and methods for improving roadways like Route 1. Most important is our strong relationships with MaineDOT staff that will help to complete the work efficiently, on schedule, and ready for Work Plan considerations.
- ▶ Both Mitchell Razor and I have exceptional communication skills that allow us to produce consensus-based recommendations through an engaging and thoughtful public outreach process. We view this process to be critically important and take pride in our approach and dedication to ensuring studies are inclusive and responsive to public feedback.
- ▶ We have teamed with Sam Schwartz, a TYLin Company for this important project. The Sam Schwartz team will provide expertise regarding transit and micro-mobility considerations. They will also provide general support for smart city and multi-modal opportunities. Their national experience will ensure recommendations seek a balance of current national trends with local Maine conditions.

TYLin

- ▶ Lastly, we have added the Maine-based firm Wright-Pierce for utility planning and sea level adaptation analysis. We are excited to have them on our team with their deep local experience and technical excellence.

We are excited about assisting the Kittery community in establishing a vision for Route 1 that changes the “car-centric” theme and establishes a corridor that is safe, attractive, and welcoming for all modes of transportation. As you will see in the Project Understanding section of our proposal, we envision a Route 1 that repurposes the roadway cross-section to encourage shoppers to park and walk to multiple stores, provides bicycle lanes so residents can safely bike to destinations along Route 1, and adds streetscape improvements to calm traffic and improve the visual character of the area. Our team has all the tools needed to evaluate alternatives and provide detailed data that will inform feasibility. We have worked on a number of MaineDOT VPI projects and know the importance of establishing a Purpose and Need Statement that will govern the study recommendations and future implementation. We thank you for your time in reviewing our proposal and look forward to the opportunity to collaborate with you. Please do not hesitate to contact me with questions by calling (207) 347-4354, or email at Thomas.Errico@TYLin.com.

Best regards,

T.Y. LIN INTERNATIONAL



Thomas A. Errico, PE
Senior Associate / NE Traffic Engineering Director



Kevin Ducharme, PE
Vice President, Principal-in-Charge

Table of Contents

A. THE TYLIN TEAM	1
B. PROJECT UNDERSTANDING	28
C. PRIOR EXPERIENCE	37
D. REFERENCES	74
E. SCHEDULE	75
F. CONTACT INFORMATION	76
G. SIGNATURE PAGE + INSURANCE	77

A. The TYLin Team

TYLin is excited for the opportunity to assist the Town of Kittery (the Town) in meeting the important objectives of this study. We have selected a team of professionals who are familiar with the study area, passionate about their work, and possess significant experience with similar studies. We intend to keep the purpose and need of this study at the forefront and develop implementable consensus-based recommendations that are ready for MaineDOT and Town considerations.

TYLin offers more than 30 years of local experience with the capabilities of a national, Engineering News Record-ranked design firm (ranked 8th in transportation). Our group of professionals believes in providing creative, technically-sound solutions to a wide range of clients in the public, private, and not-for-profit sectors. Our planners, engineers, and technical support staff artfully combine theory, practicality, cost effectiveness, and aesthetics in assessing and identifying solutions that incorporate all users of the transportation system.

WHY TYLIN?

HIGHLY QUALIFIED PROJECT MANAGER

Tom Errico has over 30 years of experience providing similar transportation engineering services to municipalities and agencies throughout New England and beyond. He has led several successful planning studies, all of which have had public outreach components that were handled by Tom and his team. Tom has a passion for and is a recognized talent in the effective communication of technical topics to the general public and stakeholders. His ability to build consensus will be beneficial in ensuring a smooth process for the Town of Kittery.

Tom's extensive experience with similar studies, combined with his local knowledge, familiarity with MaineDOT standards, and nationally recognized Complete Streets expertise will undoubtedly be an asset to this study.

TIMELY, RELEVANT EXPERIENCE IN KITTERY

TYLin has completed multiple transportation and traffic projects within the Town of Kittery, including the Foreside Land Use, Parking, and Transportation Study, Route 103 Improvements, and Portsmouth Naval Shipyard Transportation Study.

In addition, we have provided multi-modal design, extensive traffic management, and related services for the Piscataqua River Bridge Rehabilitation project. In fact, **this project was recognized with an Honor Award for Engineering Excellence fo Traffic Management and Planning from ACSE Maine in 2022.**

EXCELLENCE IN PUBLIC OUTREACH

We believe project success is directly related to public involvement and development of consensus-based recommendations. TYLin will be leading this effort with support from Rasor. Tom Errico and Mitchell Rasor are an effective, award-winning public engagement team with a proven track record for developing informative and engaging public processes that ensure consensus-based recommendations.

SUCCESSFUL RESULTS ON SIMILAR STUDIES

Tom has led dozens of studies and implemented projects throughout the state of Maine that include condition assessments, analysis of future scenarios, and development of improvement alternatives. Examples of these projects include:

- ▶ Kittery Foreside Land Use, Parking, and Transportation Study
- ▶ Route 111 Transportation Alternatives/South Street Connections Study
- ▶ Route One Complete Streets Master Plan
- ▶ Pleasant Street Corridor Transportation Study

The details of these projects and others are listed in Section C Prior Experience, beginning on page 36.

NATIONAL ACCESS & PERSPECTIVE

Our Falmouth office frequently collaborates with other TYLin offices nationally and has access to the technical expertise of other TYLin companies like Sam Schwartz, who joins us on this project. Sam Schwartz is recognized for their transit expertise and is at the forefront of national trends and practices. Tom Errico is also active in the Institute of Transportation Engineers (ITE) and is a past President of the New England Section, giving him a broader perspective on the most efficient tools and methodologies for this study.

You can learn more about Sam Schwartz and our other subconsultant partners on the following page.

ONGOING EXPERIENCE WITH MAINE DOT STANDARDS

TYLin has been servicing MaineDOT for more than 30 years and has General Service Agreements in Highway, Traffic, Bridge, and Multimodal Engineering. Because projects may be located on MaineDOT controlled facilities, we believe our knowledge will ensure that identified projects are, in fact, approvable. While this may be considered of minor importance, our ability to work with MaineDOT staff on coordinating project specifics is a very important benefit of hiring TYLin.

Sam Schwartz

A TYLin Company

Sam Schwartz, a TYLin Company is a 160-person firm with a talented team of professional planners, engineers, designers, and data scientists in nine offices around the United States: New York City, Jersey City, Chicago, Washington D.C., Oakland, Los Angeles, Seattle, Philadelphia, and Tampa. An integrated firm, Sam Schwartz specializes in transportation and urban planning, traffic engineering, environmental planning, community engagement, strategic planning, and data analytics.

For more than 25 years, Sam Schwartz has been known as the transportation firm that solves the industry's most challenging problems by balancing exemplary technical skills with exceptional creative approaches—a combination that sets our work apart. While we employ staff with specialized technical skills, our projects are staffed with multi-disciplinary teams that eliminate silos and foster creative solutions. Our projects range from large multi-year engagements with extensive planning and engineering studies, to smaller, quickly executed projects that provide clients with impactful strategic insight.

Sam Schwartz has worked on transit corridor planning and street design with both large and small cities across the US. Our team excels at working directly with city staff and stakeholders to define and articulate a vision, mission, values, and goals, with a focus on how transportation can impact communities and people's day-to-day lives.

As Sam Schwartz is a TYLin Company, we are able to seamlessly collaborate on projects like the Kittery Route 1 Corridor Feasibility Study.

_rasor

Rasor has joined our team to provide services in land use planning, graphics, and public outreach support.

Rasor is an award-winning landscape architecture and urban design office. Mitchell Rasor is a trusted partner and has collaborated with TYLin on several similar projects in the past including the Kittery Foreside Land Use and Parking Study, the awarding winning 21st Century Downtown Master Plan in Windham, the South End Transportation Plan in Bath, the Bath Road / Route 1 Corridor Plan, and the Cushing Point Multimodal Corridor Study in South Portland. Tom Errico and Mitchell Rasor are an effective Public Engagement team and have a proven track record for building consensus based, implementable plans for municipalities across Maine.

Mitchell Rasor a landscape architect and urban designer, founded Rasor in 2000. The office collaborates with clients and communities in an engaging manner leading to informed and integrated decisions regarding land use, economic development, mobility, climate resiliency, strategic infrastructures, and public engagement.

TYLin and Rasor have worked together to complete 20 projects over the past 15 years.

WRIGHT-PIERCE

Engineering a Better Environment

Wright-Pierce has joined our team to provide utility infrastructure and sea rise adaptation services.

Wright-Pierce is an award-winning, multidiscipline engineering firm that has been providing drinking water, wastewater, and civil infrastructure services since 1947. Employee-owned and operated, the firm is made up of more than 300 engineers and support professionals located in offices throughout the Northeast and Florida. They complete many engineering projects each year, ranging in size from less than \$100,000 to more than \$100 million. They provide full engineering services from initial planning to design, bidding, construction administration, and operational support.

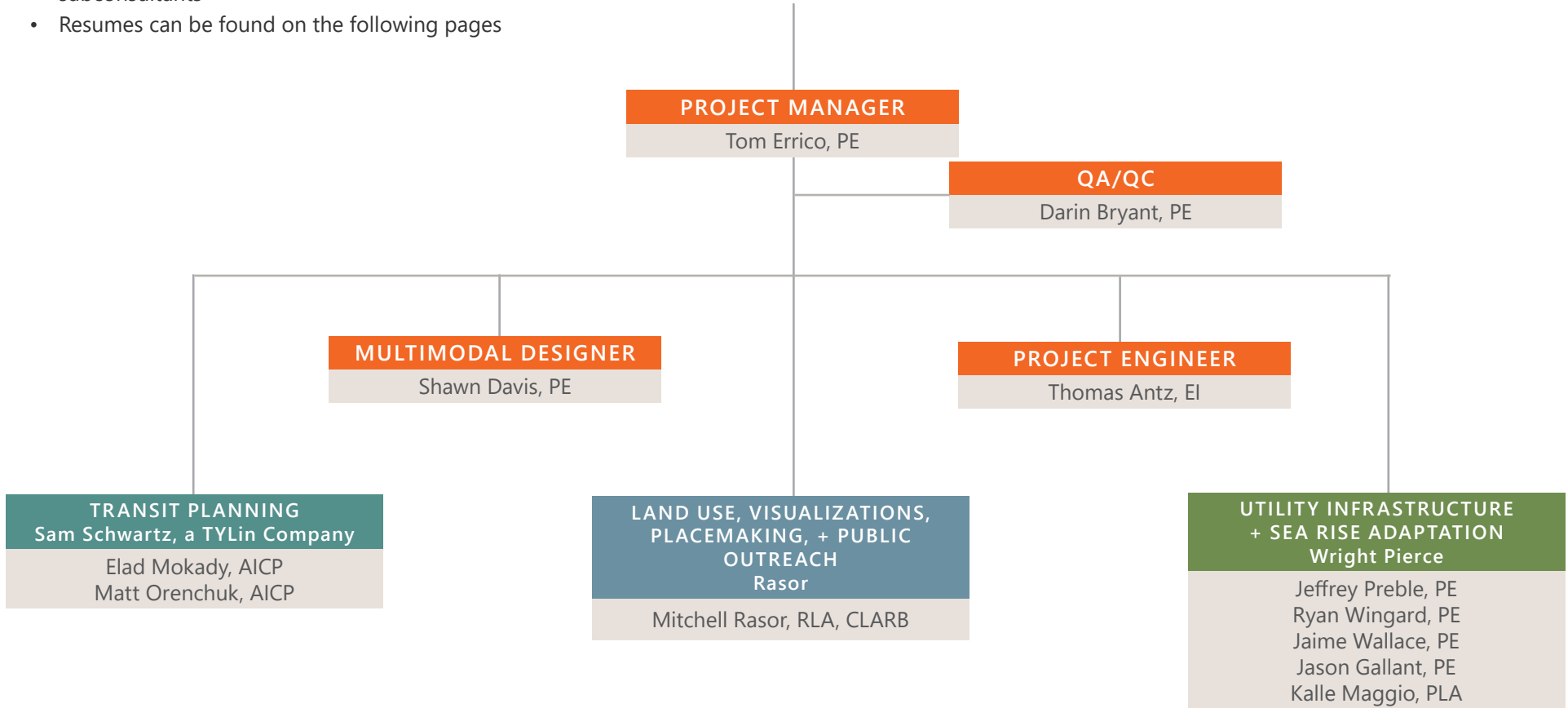
Wright-Pierce provides assistance with planning, permitting, and design of infrastructure and streetscape systems to create more vibrant communities and more successful institutions and businesses. Through their many years of experience in this arena, Wright-Pierce has developed a keen understanding of the technical and regulatory issues, as well as funding opportunities associated with the full spectrum of transportation system improvements.

Wright-Pierce is an award-winning, multidiscipline engineering firm that has been providing drinking water, wastewater, and civil

Wright-Pierce has joined TYLin on notable projects such as the on-going VPI Oquossoc Village Transportation Study and the City of Portland Back Cove Stormwater Storage project.

PROJECT TEAM

- Seasoned local experts
- Established relationships with all subconsultants
- Resumes can be found on the following pages



HOW INFORMATION WILL BE PRESENTED OR PUBLISHED DURING THE PROCESS

The goal is for all information to be communicated in clear and understandable language that does not require any understanding of planning or engineering jargon. Rasor Landscape Architecture will create graphic representations of study alternatives to help the public clearly see the possibilities. This information will be available in person at meetings, and online via a study page on the Kittery website. The Town will create the page, and the TYLin Team will provide content and regular updates. The TYLin Team will also provide content for the Town's Facebook page on a regular basis to link people directly to the study web page. The team will also provide press releases and updates on the study to local media for broad dissemination.



Thomas A. Errico, PE

Project Manager/Complete Streets Specialist

Tom Errico joined TYLin as a senior associate and New England traffic Engineering Director. His background in traffic engineering includes access management, corridor studies, traffic operations studies, pedestrian studies, parking studies, safety evaluations, and traffic impact studies. He 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.

YEARS OF EXPERIENCE

36

YEARS WITH TYLIN

23

EDUCATION

BS, Civil Engineering,
Northeastern University,
Boston, Massachusetts

M.S., Civil Engineering,
Northeastern University,
Boston, Massachusetts

LICENSE

Professional Engineer in
Maine #6618, Vermont
#6321, New Hampshire
#10096, Massachusetts
#37701

CERTIFICATIONS

Certified Maine DOT Locally
Administered Project
Manager

AFFILIATIONS

Member & Workshop
Instructor for The National
Complete Streets Coalition

2017 President of the New
England Section ITE (NEITE)
and Former Chair of the
NEITE Technical Committee

Member, Institute of
Transportation Engineers
(ITE), 1997-Present

Member of the Association of
Pedestrian and Bicycle
Professionals

AWARDS

2013 Transportation Engineer
of the Year – ITE (New
England Section)

2015 Distinguished Service
Award - ITE (New England
Section)

PROJECT EXPERIENCE

Town of Kittery, Kittery Foreside Land Use, Parking and Transportation Study | Kittery, Maine, USA

Project Manager

TYLin developed transportation recommendations for the Foreside area of Kittery that experiences traffic congestion and parking challenges associated with successful commercial developments and commuter traffic from the Naval Shipyard. The Study involved developing recommendations on transportation circulation, parking and land use that allow for a sustainable growth plan that ensures development intensities do not degrade the village character while allowing for reasonable economic growth.

Key tasks included, reviewing current parking requirements for site plan approvals; identifying strategies for increasing parking supply and efficiencies; evaluating the conversion of Government Street and adjacent side streets from their one-way configuration to two-way flow; and reviewing onstreet parking regulations for improved parking turnover and utilization.

Portsmouth Naval Shipyard (PSNY) Transportation Study, Kittery, ME, USA

Project Manager

The Study included the collection of transportation data and development of a VISSIM Model that simulated existing transportation conditions associated with morning and afternoon shift changes at the PNSY. Severe congestion occurs due to the large number of employees arriving and departing the Shipyard. The VISSIM model was being used to test the effectiveness of improvement actions and as a tool for presenting finding to a broad group of decision-makers including the Department of Defense.

Maine DOT, Piscataqua River Bridge Improvements | Kittery, Maine - Portsmouth, New Hampshire, USA

Senior Traffic Engineer

TYLin was selected to provide Phase I, II, and III preliminary design, final design, construction support, and traffic management services for the rehabilitation of this high volume bridge. Initially, our team performed preliminary engineering studies to determine the scope of repairs and remediation required to maintain the bridge, and to identify a way to move more traffic through the corridor using the existing bridge. TYLin proposed an intelligent transportation system (ITS) to dynamically use the shoulders as a fourth lane in each direction, which will greatly improve traffic flow.

Additional traffic related items included:

- Transportation Management Plan
- Maintenance of Traffic layout, signing, detailing, and plan development
- Detour layout, signing, detailing, and plan development for ramp closures
- Exit 2 on ramp traffic investigation
- Final striping layout
- ITS device layout

Maine DOT, Route 103 Improvements | Kittery, Maine, USA

Lead Traffic Engineer

Designed improvements to upgrade an existing traffic signal in association with reconstruction of Route 103 and construction of new sidewalks, ADA upgrades, crosswalks, and shared bicycle facilities.

City of Bath, BIW, Maine DOT, South End Transportation Study | Bath, Maine, USA

Project Manager

Responsible for the assessment of strategies to improve transportation conditions in the Bath Iron Works area of the City. As part of this effort, TYLin conducted safety evaluations at HCL locations. Work included an assessment of crash contributing factors and identifying mitigation strategies.

Town of Brunswick, Pleasant Street Transportation Corridor Study | Brunswick, Maine, USA

Project Manager

Developed multimodal, safety, and mobility recommendations for a busy stretch of roadway that has competing regional and local priorities.

Portland Area Comprehensive Transportation System (PACTS), Scarborough and Saco Route One Complete Streets Plan | Scarborough & Saco, Maine, USA

Project Manager

Developed a corridor plan that identifies and provides concept designs for multi-modal transportation opportunities. Provided transportation planning services with emphasis on access management practices, intersection improvement analysis, traffic signal optimization and coordination, multi-modal design, complete streets planning and design, and public process facilitation and presentation skills.

PACTS, 21st Century Downtown Master Plan | Windham, Maine, USA

Project Manager

Provided planning and engineering services, as well as final design, for downtown improvements in North Windham. Project goals included developing a comprehensive vision for transportation improvements, creating a transportation system that provides for multiple modes of transportation, further economic development opportunities through improved transportation, focus on implementation by identifying specific projects and funding mechanisms, and furthering the "sense of place" in Windham's commercial center.

Bangor Area Comprehensive Transportation System (BACTS), Broadway Corridor Study | Bangor, Maine, USA

Project Manager

Performed a study of the Broadway Corridor in Bangor, which serves as a main link between I-95 and major towns, as well as an important internal link between major commercial, residential, educational, and recreational land uses within the community. Project goals included preserving existing roadway capacity over the long term (2035 design year) to facilitate through traffic movement and minimize congestion while providing safe vehicular access to new and existing development along Broadway, as well as maintaining the functional integrity and safety of the corridor, while accommodating the public and private needs for access and adjacent land parcels.

Town of Millinocket, Bicycle & Pedestrian Safety Study | Millinocket, Maine, USA

Project Manager

Developed recommendations for both short and long-term improvements for bicycle and pedestrian modes. Recommendations envision transportation options that support the goals for livability and sustainability, promote walking and bicycling as an integral part of an active lifestyle, and foster a sense of community while complimenting economic development efforts.

City of Biddeford, Route 111 Transportation Alternatives/South Street Connections Study | Biddeford, Maine, USA

Project Manager

Investigating the benefit of constructing a new parallel roadway from the Exit 32 interchange on the Maine Turnpike, parallel to Route 111 towards the west. Additionally, a new roadway connecting South Street to Exit 32 and Route 111 is also being evaluated. TYLin is providing overall study project management, traffic engineering, roadway concept planning/engineering, multi-modal planning, and cost estimating.

Town of Skowhegan, Second Bridge Feasibility Study | Skowhegan, Maine, USA

Project Manager

Completed a mobility analysis of the existing crossing of the river. This project also involved extensive origin-destination traffic data collection and analysis utilizing Streetlight Data to help understand user patterns and determine recommendations of improvements. Other factors of consideration included consistency with local plans, environmental impacts, cost and practicality of implementation, and resiliency of the system as a whole.

Town of Wiscasset, Bath Road Master Plan | Wiscasset, Maine, USA

Project Manager

Maximized development opportunities along Bath Road on Route 1 through the strategic coordination of traffic infrastructure improvements, land use policies, and design standards, while maintaining or improving the mobility and safety of U.S. Route 1. By planning for growth, Bath Road increased safety, reduced congestion, and enhanced the visual character for the corridor. Ultimately, this Master Plan was intended to help Wiscasset shape a future for Bath Road and surrounding areas that reflects the needs and values of the community and preserves the Midcoast Region's most important arterial highway.

City of Portland, On-Call Traffic Engineering Services | Portland, Maine, USA

Program Manager & Traffic Engineer

Responsible for providing technical assistance on a host of traffic related tasks including development reviews (for large developments including the Packard Shopping Center and the Ocean Gateway project), traffic support for construction projects, neighborhood traffic management, traffic calming, traffic signalization design, pedestrian accommodations, and general traffic engineering tasks. Mr. Errico is a member of the City's Pedestrian Crosswalk Committee and provides technical guidance on bicycle and pedestrian issues.



Darin Bryant, PE

QA/QC Engineer

Darin has been with TYLin since 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.

YEARS OF EXPERIENCE

35

YEARS WITH TYLIN

35

EDUCATION

BS, Civil Engineering,
University of Maine

LICENSE

Professional Engineer, Maine
#6853

Professional Engineer,
Vermont #6102

Professional Engineer,
Washington, D.C. # PE901490

CERTIFICATIONS

MDOT Local Project
Administration Certification,
Nov 2018

ADDITIONAL TRAINING

ADDITIONAL TRAINING:
"Bicycle Facility Training",
Vermont Agency of
Transportation, July 2016

"Pedestrian Facility Design",
UMass Transportation
Training Institute, February
2016

"Street Lighting Design
Training", Vermont Agency of
Transportation, October 2015

"Work Zone Speed
Management", Transportation
Research Board Webinar,
November 2015

Complying with the MUTCD:
Traffic Signing for Horizontal
Curves Seminar, ASCE, April
2014

Local Project Administration
Certification Course, Maine
Department of
Transportation, November
2013

PROJECT EXPERIENCE

MaineDOT, Kittery Route 103 Improvements | Kittery, Maine, USA

Project Manager/Senior Project Engineer

TYLin was selected for the design of this ½ mile urban roadway improvement project which included sidewalk and crosswalk improvements, on-street parking upgrades, traffic signal improvements at the entrance to the Portsmouth Naval Shipyard, improved pedestrian safety features and roadway overlay. Drainage and maintenance of traffic design was also required. Significant coordination with the MaineDOT, the Town of Kittery, the Portsmouth Naval Shipyard and the Regional Planning Commission was necessary to ensure the project met local expectations. Mr. Bryant was responsible for managing all project coordination, design and quality assurance efforts on this project, as well as oversight of design checks and CAD production.

Maine DOT, Route 1A Improvements Phase II, Final Design | Hampden, Maine, USA

Senior Project Engineer

This project consisted of 1.73 miles of roadway reconstruction including 16 side roads and over 130 driveways. Design comprised a combined open/closed drainage system coordinated with buried water and sanitary sewer utilities, addition of a raised sidewalk the entire project length, improved turning movements and safety within the corridor, historical elements, and right-of-way/ property impacts.

Morrill's Corner Roadway Improvements Phase I & II | Portland, Maine, USA

Project Manager

TYLin is responsible for preliminary and final design through PS&E complete and includes project management and coordination with all stakeholders including the public. Design tasks include horizontal and vertical alignment, traffic volume forecasts, roadway typical sections, upgrading drainage, upgrading intersections, and providing and engineers' estimate.

VTrans, Route 7 Intersection Improvements | Colchester, Vermont, USA

Project Manager/Senior Project Engineer

TYLin was selected for the preparation of Conceptual, Preliminary and Final design plans for this ½ mile urban roadway project. Includes overlay and widening for most of the project, with complete pavement structure replacement. Also includes the addition of a bicycle/pedestrian path, two traffic signals, turning lanes, curbing, and an enclosed drainage system. Responsible for managing all design and quality assurance efforts, development of special provisions, oversight of design checks, CAD production, and public coordination.

Town of Camden, Riverwalk and Public Landing Feasibility Studies | Camden, Maine, USA

Project Manager

Responsible for oversight of project, coordination with the client, development of Feasibility Studies, and conceptual layouts for the public landing improvements. TYLin performed feasibility studies on the potential for a 2-1/2 mile trail adjacent to the Megunticook River and upgrades to the existing public landing to improve safety and provide best uses. The TYLin Team, was responsible for inventory of existing conditions and uses; community involvement (including open forums/design charrettes), Public Meetings, and workgroup interactions; development of conceptual plans and cost estimates; natural resource identification and listing of required environmental permits; identification of ROW concerns/issues; preparation of economic impact analyses, and identification of possible funding sources.

Town of Yarmouth, Beth Condon Memorial Pathway Extension, Final Design, Phase 1 - Route One Bicycle and Pedestrian Path | Yarmouth, Maine, USA

Project Manager

Final design, contract document preparation and engineering services during construction for two sections of path along Route One (0.5 and 0.29 miles). These two sections comprise the first phase being constructed from those recommended in the Beth Condon Memorial Pathway Extension Feasibility Study previously conducted by a team which included Mr. Bryant. Design includes subbase and pavement, drainage, fencing, and traffic signal modification. One section was based on "road diet" principles which included a reduction in the number of travel lanes on the roadway. The projects also required coordination with permitting, geotechnical, landscape and survey subconsultants, the Town of Yarmouth, the MaineDOT, and utility companies and included the development of a public participation process.

Town of Freeport, Route 1 Sidewalk | Freeport, Maine, USA

Project Manager / Senior Project Engineer

Responsible for the design of a 730' sidewalk along Route 1 in Freeport. The sidewalk will connect the downtown Freeport area with a Metro Breez regional bus stop and various commercial businesses and hotels along Route 1. Responsibilities included oversight of design, development of the quantity estimate, and coordination with MaineDOT to have the project bid as part of a MaineDOT paving project.

MaineDOT, Route 88 Sidewalk | Falmouth, Maine, USA

Project Manager / Senior Project Engineer

Responsible for the conceptual and final design of 750' of sidewalk connecting the town owned Underwood Park to Johnson Road and the Town Landing Store. Responsibilities included oversight of preliminary and final design, completion of a public meeting, and development of the cost estimate, specifications, and bidding documents.

MaineDOT, Frank J. Wood Bridge | Brunswick, Topsham, Maine, USA

Project Manager / Senior Project Engineer

TYLin is under contract with MaineDOT to provide preliminary design services that investigate multiple rehabilitation and replacement alternatives for this bridge improvement project, and then to provide final design services for the selected alternative. The existing bridge is a three-span 810' steel truss bridge in an urban setting adjacent to historic mills and a power-generation dam. This bridge is a highprofile bridge between two community-focused towns with healthy bicycle and pedestrian contingencies and widespread public interest in the project. Preliminary design investigations involved detailed analysis, design, and evaluations of two bridge rehabilitation alternatives and five bridge replacement alternatives and included extensive public involvement processes. Final design efforts have included development of approach roadways and sidewalks, park amenities on each approach in coordination with numerous stakeholders, and design of complex steel girders with an unorthodox span arrangement due to site constraints. Mr. Bryant is the Project Manager for the final design phase of the project.

Abbot Laboratories, Inc., Saco Street/Eisenhower Drive Intersection | Westbrook, Maine, USA

Senior Project Engineer

TYLin was contracted by Abbot Laboratories, Inc. to design and oversee construction for intersection improvements related to an August 2020 MaineDOT Traffic Movement Permit. This project includes the preparation of Plans and Estimates for improvements that consist of the installation of a new traffic signal at the Saco Street/Eisenhower Drive intersection, construction of opposing, dedicated left-turn lanes on both Saco Street approaches, and relocation of the existing curb and sidewalk to accommodate the widening required to incorporate the turning lanes. Responsibilities include oversight of preliminary and final design, and development of the cost estimate and bidding documents.



Shawn Davis, PE

Multimodal Engineer

Shawn joined TYLin after a 16-year career with the Maine DOT. His strong project management and highway design skills were honed at Maine DOT 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. He also served as Senior Project Manager in the Eastern Region for many highway improvement projects.

PROJECT EXPERIENCE

YEARS OF EXPERIENCE

17

YEARS WITH TYLIN

3

EDUCATION

BS, Civil Engineering,
University of Maine

LICENSE

Professional Engineer, Maine
#12272

CERTIFICATIONS

Certificate, National
Transportation Leadership
Institute, 2018, Indiana
University, AASHTO
Sponsored

MaineDOT LPA Certified

MaineDOT, Kittery Route 103 Improvements | Kittery, Maine, USA

Senior Project Engineer

TYLin was selected for the design of this ½ mile urban roadway improvement project which included sidewalk and crosswalk improvements, on-street parking upgrades, traffic signal improvements at the entrance to the Portsmouth Naval Shipyard, improved pedestrian safety features and roadway overlay. Drainage and maintenance of traffic design was also required. Significant coordination with the Maine DOT, the Town of Kittery, the Portsmouth Naval Shipyard and the Regional Planning Commission was necessary to ensure the project met local expectations.

Maine DOT, Skowhegan Bridge Feasibility and Planning Study | Skowhegan, Maine, USA

Senior Transportation Engineer

TYLin was selected to perform this planning study which includes a mobility analysis of the single crossing of Kennebec River in Skowhegan. Working closely with Maine DOT and the town of Skowhegan, this project involves extensive origin-destination traffic data collection to help understand user patterns that will help to determine recommendations of improvements. Other factors of consideration include consistency with local plans, environmental impacts, cost and practicality of implementation, and resiliency of the system.

Town of Millinocket, Bicycle & Pedestrian Safety Study | Millinocket, Maine, USA

Senior Project Engineer

Developed recommendations for both short and long-term improvements for bicycle and pedestrian modes. Recommendations envision transportation options that support the goals for livability and sustainability, promote walking and bicycling as an integral part of an active lifestyle, and foster a sense of community while complimenting economic development efforts.

Maine DOT, South Street Sidewalk Construction, | Blue Hill, Maine, USA

Project Manager

Project Manager overseeing design of the addition of ADA compliant sidewalks and shoulder construction in Blue Hill. This project is an LPA with the town of Blue Hill that is administered by Maine DOT and, as such, involves much coordination with the town as a stakeholder.

Maine DOT, Pittsfield Route 11 Highway Rehabilitation, | Pittsfield, Maine, USA

Project Manager

TYLin was selected to perform design services for this 1.8-mile project due largely to our practical approach to problem solving. As an urban roadway previously built with a concrete base, geometric alterations are very limited. Work involves scrutiny of existing alignment to afford a best-fit design, while considering impacts to drainage and abutters. Additionally, to preserve the existing concrete core and afford a widening to accommodate present-day standards, a composite pavement structure was designed to limit differential transverse settlement. Other factors of consideration include coordination with the town to integrate an ongoing sidewalk reconstruction project, and with the Maine Central Institute to accommodate the re-design of their campus as it abuts Route 11.

Maine DOT, Route 1A RAMP Drainage Improvements | Machias, Maine, USA

Project Manager

Project Manager/Lead Designer producing a practical design to improve drainage along Court Street and evaluate a possible addition of a sidewalk. This project involves careful consideration of alignment and footprint to reduce potential right of way impacts.

Washington County Council of Governments, Bold Coast Scenic Bikeway | Washington County, Maine, USA

Project Manager

TYLin was selected for field verification and layout of this bike route because of our ties to Washington County and rural Maine. This project involves verification of concept and field location of signage for the Bold Coast Scenic Bikeway, the spans from Gouldsboro to Calais, ME.

Maine Turnpike Authority, Route 109 / Exit 19 Intersection Improvements | Wells, Maine, USA

Lead Highway Engineer

Highway Engineer for the improvements of State Route 109 and the intersection at Exit 19 of the Maine Turnpike. The Maine DOT Route 109 Study performed by TYLin recommended improvements to this corridor. This project included extending the merge along eastbound Route 109, changing the intersection to have dual left turn lanes, and associated traffic signal modifications. Additional improvements included new signing. A large portion of the project is to install an overhead guide sign for lane assignments on eastbound 109 to improve safety. Responsible for preliminary and final design to develop PS&E bid documents.

Maine DOT, Route 26/North Raymond Road Traffic Signal Design | Gray, Maine, USA

Lead Highway Engineer

Lead Highway Engineer for creating geometric improvements at the intersection and addition of a center turn lane to improve mobility. This project involves the installation of a signal and is aimed at safety and mobility improvements along the HCP 1 corridor of Route 26.

Morrill's Corner Roadway Improvements Phase I & II | Portland, Maine, USA

Senior Engineer

TYLin is responsible for preliminary and final design through PS&E complete and includes project management and coordination with all stakeholders including the public. Design tasks include horizontal and vertical alignment, traffic volume forecasts, roadway typical sections, upgrading drainage, upgrading intersections, and providing and engineers' estimate.

Maine Turnpike Authority, Pavement Rehabilitation, Guardrail, and Drainage Improvements | Biddeford & Saco, Maine, USA

Engineer of Record

Responsible for the design and plan production to improve the condition of the pavement and make safety improvements. In addition, this project includes the design of a deceleration lane at SB Exit 32, and necessary stream relocation.

Maine DOT, Route 1A Improvements – Hampden Maine Phase II, Final Design | City, Maine, USA

Project Manager

Project Manager for the final design of 1.73 miles of roadway reconstruction including 16 side roads and over 130 driveways. Design comprised a combined open/ closed drainage system coordinated with buried water and sanitary sewer utilities, addition of a raised sidewalk the entire project length, improved turning movements and safety within the corridor, historical elements, and right-of-way/ property impacts.



YEARS OF EXPERIENCE

3

YEARS WITH TYLIN

3

EDUCATION

BS, Civil Engineering,
University of Maine

LICENSE

Engineer Intern, Maine, #7799

CERTIFICATIONS

Autodesk Civil3D Training

Bentley Open Roads Designer
Training

PROFICIENCIES (E.G. SOFTWARE)

- Autodesk Civil3D
- Bentley Open Roads

Thomas W. Antz, EI

Roadway Designer

Thomas supports TYLin's surface transportation group as a designer/technician and as a construction inspector. A graduate of the University of Maine at Orono with a Bachelor of Science degree in Civil Engineering, Thomas also has experience working at Maine DOT in the Planning and Project Development Division.

PROJECT EXPERIENCE

Maine DOT, Kittery Route 103 Improvements | Kittery, Maine, USA

Jr. Roadway Designer

TYLin designed this ½ mile urban roadway improvement project which included sidewalk and crosswalk improvements, on-street parking upgrades, traffic signal improvements at the entrance to the Portsmouth Naval Shipyard, and improved pedestrian safety features and roadway overlay. Drainage and maintenance of traffic design was also required. Significant coordination with the Maine DOT, the Town of Kittery, the Portsmouth Naval Shipyard, and the Regional Planning Commission was necessary to ensure the project met local expectations.

Town of Millinocket, Bicycle & Pedestrian Safety Study | Millinocket, Maine, USA

Jr. Roadway Designer

Assisted in the development of recommendations for both short and long-term improvements for bicycle and pedestrian modes. A key part of the recommendations is constructing a shared-use path from the downtown to the commercial district to the east abutting an existing state highway.

Town of Brunswick, Pleasant Street Transportation Corridor Study | Brunswick, Maine, USA

Jr. Roadway Designer

Assisted in the development of multimodal, safety, and mobility recommendations for a busy stretch of roadway that has competing regional and local priorities. The study objective was to analyze potential improvement strategies to improve congestion and safety along the corridor without widening Pleasant Street.

Maine DOT, Pittsfield Route 11 Highway Rehabilitation, Pittsfield, Maine, USA

Jr. Roadway Designer

TYLin was selected to perform design services for this 1.8-mile project due largely to our practical approach to problem solving. As an urban roadway previously built with a concrete base, geometric alterations are very limited. Work involves scrutiny of existing alignment to afford a best-fit design, while considering impacts to drainage and abutters. Additionally, to preserve the existing concrete core and afford a widening to accommodate present-day standards, a composite pavement structure was designed to limit differential transverse settlement. Other factors of consideration include coordination with the town to integrate an ongoing sidewalk reconstruction project, and with the Maine Central Institute to accommodate the re-design of their campus as it abuts Route 11.

Town of Falmouth, Route 88 Crosswalk and Sidewalk Design | Falmouth, Maine, USA

Project Engineer

The Town of Falmouth selected TYLin to complete the design of four crosswalk locations and sidewalk connections along Route 88 in Falmouth, Maine. The project locations are at the intersection of Route 88 and Johnson Road, the intersection of Route 88 and Depot Road, and a midblock crossing located near Old Mill Road. The design minimizes impacts to surrounding properties and roadways. TYLin was responsible for preliminary design, completion of the Preliminary Design Report, presenting the project at a public meeting, final design, and development of the cost estimate, specifications and bidding documents.

Maine DOT, Route 26/North Raymond Road Traffic Signal Design | Gray, Maine, USA

Jr. Roadway Designer

Jr. Roadway Designer responsible for creating geometric improvements at the intersection and addition of a center turn lane to improve mobility. This project involved the installation of a signal to improve safety and mobility along the HCP 1 corridor of Route 26.

Maine Turnpike Authority, Route 109 / Exit 19 Intersection Improvements | Wells, Maine, USA

Jr. Roadway Designer

Assisted on this roadway improvement project. Project included extending the merge along eastbound Route 109, changing the intersection to have dual left turn lanes, and associated traffic signal modifications. A large portion of the project is to install an overhead guide sign for lane assignments. TYLin was responsible for final design to develop PS&E bid documents and plans for traffic maintenance during construction. Thomas assisted in drainage design, maintenance of traffic design, sign detailing, and sign placement.

Maine DOT, Route 1A Improvements – Hampden, Maine Phase II, Final Design | City, Maine, USA

Jr. Roadway Designer

This 1.73-mile roadway reconstruction project included 16 side roads and over 130 driveways. Design comprised a combined open/ closed drainage system coordinated with buried water and sanitary sewer utilities, addition of a raised sidewalk the entire project length, improved turning movements and safety within the corridor, historical elements, and right-of-way/property impacts.

Vermont Agency of Transportation (VTrans), Statewide Southeast Sign Replacement Project | Vermont, USA

Jr. Roadway Designer

TYLin was responsible for roadway engineering services in support of a statewide system sign replacement program that involved the replacement of signing on 40 miles of roadway that does not meet current standards. Mr. Antz was responsible for the design of various street and destination signs according to VTrans standards and needs.

Maine DOT, Frank J. Wood Bridge | Brunswick - Topsham, Maine, USA

Jr. Roadway Designer

TYLin is under contract with Maine DOT to provide preliminary design services that investigate multiple rehabilitation and replacement alternatives for this bridge improvement project, and then to provide final design services for the selected alternative. The existing bridge is a three-span 810 ft steel truss bridge in an urban setting adjacent to historic mills and a power-generation dam. This bridge is a high-profile bridge between 2 community focused Maine towns with healthy bicycle and pedestrian contingencies and widespread public interest in the project. Pre-liminary design investigations involved detailed analysis, design, and evaluations of two bridge rehabilitation alternatives and five bridge replacement alternatives and included extensive public involvement processes. Final design efforts have included development of park amenities on each approach in coordination with numerous stakeholders and design of complex steel girders with an unorthodox span arrangement due to site constraints.

Elad Mokady, AICP

Senior Transit Planner



A forward-thinking transportation planner and project manager, Mr. Mokady works closely with transit agencies, departments of transportation, and private developers, leading the development of complex transit operation solutions. Through his current work and his previous leadership roles with transit authorities, Mr. Mokady has gained a wide perspective of in fostering sustainable transportation systems in urban and suburban areas.

Relevant Experience

Brooklyn Bus Network Redesign, NEW YORK, NY

Sam Schwartz is working as part of a team to redesign the entire bus network of Brooklyn, NY. Mr. Mokady serves as a Deputy Project Manager, leading Sam Schwartz's transit planning, graphics, and data analytics teams. Utilizing Python programming and other data analytics tool, Mr. Mokady and the team created state-of-the-art route profiles, which were praised by MTA and its patrons. Further, the team analyzed system-wide bus load patterns to propose the rationale for the bus routes headway and service span.

Transit Cities Program, PHILADELPHIA, PA AND NEW ORLEANS, LA

In collaboration with TransitCenter, Sam Schwartz has engaged numerous US cities to assist municipal governments and transit agencies in developing a cohesive and collaborative strategy for enhancing transit services through operational, geometric, and policy improvements. Mr. Mokady served as Transit Planner and Analyst on the project. Based on his hands-on planning experience in bus corridor enhancements, he proposed a plan to enhance the existing transit amenities along planned transit corridors. Plans included bus stop relocations and amenities enhancement, in addition to street redesign, revised parking regulations, improved bike connections and walkability treatments.

TCAT Transit Development Plan, ITHACA, NY

Sam Schwartz led the planning process of the 2020-21 Transit Development Plan (TDP), which will guide TCAT's transit network development in the next 10 years. Mr. Mokady served as the Project Manager and led, oversaw a team of planners and engineers who explored best practices, challenges, and opportunities to optimize TCAT's existing

Years of Experience

11 Years

Education

Master of Community Planning

University of Cincinnati, 2011

B.A. in Geography and Environmental Development

Ben Gurion University of the Negev (Israel), 2009

Professional Affiliations

American Institute of Certified Planners

Institute of Transportation Engineers, Transit Standing Committee

Publications

"Bus Network Development and Prioritization Treatments", 2022 ITE Northeastern District Annual Meeting, Ithaca NY

"Bus Prioritization in the Urban Environment", Moderator of ITE Webinar, December 2020

"Mitigating Traffic to Improve Bus Operations: Lessons from NYC", 2019 APTA Sustainability & Multimodal Planning Conference, Boston MA

"LaGuardia Airport Future Accessibility and Traffic Assessment", 2019 TRB Annual Meeting, Washington DC

Sam Schwartz

A TYLin Company₁₃

bus network and tailor the service to evolving demands through extensive research, analysis, and engagement of both the public and stakeholders, as well as TCAT internal staff.

MTA-NYCT Bus Dept. Traffic Engineering Service, NEW YORK, NY

As Project Manager, Mr. Mokady continues Sam Schwartz's 20-year history of serving as trusted advisors for the largest transit operator in the United States. Task orders issued under this contract have ranged from traffic assessments of major bus arterials to bus terminal operations analyses and bus priority treatments. The exposure to the nuts-and-bolts of New York City Transit's operations has provided Mr. Mokady with a deep knowledge and understanding of the needs and challenges facing the agency and the realities of operating a transit agency in one of the busiest cities in the world.

Shared Transit Data & Planning Tools Assessment, NEW YORK STATE

Sam Schwartz is working as part of a team to evaluate the next generation of transit data and planning tools in partnership with NYSDOT and NYSAMPO. The team is now collaborating with several MPOs and transit agencies, including CDTA, to implement pilot projects utilizing technology tools. Mr. Mokady is leading the CDTA pilot project, which focuses on restructuring and ridership projection of the bus routes serving Troy, NY. Previously, he supported the evaluation of the planning and technology priorities of MPOs and transit authorities across NY State.

Downtown Connection Service Analysis & Electrification Strategy, NEW YORK, NY

Sam Schwartz led a plan to modernize and electrify the Alliance for Downtown New York's "Downtown Connection" bus service. Mr. Mokady led the service analysis task that closely assessed

the route performance and tested potential service improvements, consistent with the electrification strategy. The team also tested the service compatibility with potential battery electric transit vehicles and modelled the financial costs/savings associated with various scenarios.

WBP Trolley Amenities Assessment, WEST PALM BEACH, FL

Serving as a Transit Planner on this project, Mr. Mokady evaluated the proposed trolley routing, including their stop locations, passenger amenities, Park&Ride and transfer options. This study was part of a comprehensive assessment of the City of WPB, envisioning an efficient and equitable multimodal transportation system.

Operational Assessment of the New Port Authority Bus Terminal, NEW YORK, NY

As part of a larger review of the design for a new Port Authority Bus Terminal (PABT), Sam Schwartz performed a detailed operations review and provided feedback on key elements of the design from traffic engineering and transit planning perspectives. As the transit planning lead, Mr. Mokady analyzed bus operations at the PABT and its vicinity, evaluating the feasibility to operate existing service during construction.

Elevated Standards for Bus Operations, TRANSIT-CENTER, NEW YORK, NY

Mr. Mokady served as a co-author; he interviewed planners and schedulers from 8 transit agencies across the US, as well as transportation scholars from both the US and Europe. Based on the interviews, the study team compiled an analysis of best practices. Aiming to guide bus agencies in the efforts to increase service reliability, Sam Schwartz and TransitCenter developed a set of white papers that document existing practices and offer practical approaches in scheduling, dispatching, and engagement of bus operators.

Matt Orenchuk, AICP



Principal + Transit and Rail Practice Leader

Mr. Orenchuk specializes in bus and rail operations planning, corridor planning, and long range and strategic planning. He has worked in major metropolitan areas across the US providing insight into transit operations and policy goals. His work helps clients realize agency objectives and improve quality of life for riders by efficiently delivering service improvements.

Relevant Experience

Chicago RTA Strategic and 10-Year Financial Plan (2022-), CHICAGO, IL

Matt is the principal-in-charge for the consultant team leading the strategic plan for RTA. The team is helping RTA develop vision, goals, and strategies to address the major upheaval that COVID-19 has placed on the region's transit system, including a \$700M funding gap projected for 2026. Work is expected to continue throughout 2022, with a plan adoption in January 2023.

CTA Better Streets for Buses Project (2021-), CHICAGO, IL

Matt is the principal in charge for the CTA project making recommendations to improve street configurations to address speed and reliability issues with CTA buses. Matt's team provided major public engagement support and is using that feedback to update the plan, including both proposed corridors for improvement and the proposed toolbox CTA and CDOT can use to address bus operational issues.

***Queens Bus Network Redesign (2019-20), QUEENS, NEW YORK**

Matt was technical manager for the Queens Bus Network Redesign (QBNR) conducted for the New York City MTA. As one of the largest and most heavily utilized bus networks in the United States, the QBNR required a thorough technical analysis. This work included review of existing conditions, assessment of service deficiencies, and review of a complex AVL database that resulted in revised travel times for recommended routes.

Brooklyn Bus Network Redesign (2022-), BROOKLYN, NEW YORK

Matt was principal-in-charge for Sam Schwartz' role on the Brooklyn Bus Network Redesign (BkBNR) conducted for the New York City MTA. Matt's team managed the development of route profiles and communication of

Years of Experience

18 Years

Education

Master of Urban Planning

University of Michigan, 2007

B.S. Civil Engineering

University of Notre Dame, 2002

Certifications

American Institute of Certified Planners

Professional Affiliations

American Planning Association

American Public Transit Association

**Projects completed prior to Sam Schwartz*

**Sam
Schwartz**

A TYLin Company₁₅

the recommendations, and also supported the route recommendations developed for the project.

***Flushing-Jamaica Select Bus Service Project (2015-16), QUEENS, NY**

This study for the New York City DOT analyzed SBS improvements connecting downtown Flushing with Jamaica Center in Queens. Matt conducted the transit operations planning for the study, and helped the consultant team develop and assess the alternatives for the study. A final alternative, selected in 2015, was constructed in 2017 and is now in operation in the borough.

***South Brooklyn Select Bus Service Project (2016-17), BROOKLYN, NY**

Mr. Orenchuk managed his firm's role on the South Brooklyn SBS study for New York City DOT as a subcontractor. The study considered SBS improvements for the B82 bus line that connects Coney Island with Canarsie via Kings Highway and Flatlands Avenue. Mr. Orenchuk completed a complex travel time analysis that incorporated existing and future conditions to help the study team determine the overall benefit of the SBS improvement.

***Far Rockaway Transit Development Project (2016), QUEENS, NY**

Matt managed his firm's role on the Far Rockaway Transit Development study for New York City DOT as a subcontractor. The study analyzed several different transportation alternatives for downtown Far Rockaway, centered on Mott Avenue at the A-train subway terminal. Matt conducted the transit operations analysis for the study and then helped develop a recommended transit plan for the area.

***Pulse 95th Street Corridor BRT Project (2018), CHICAGO, IL**

Matt was his firm's project manager for the consultant team that developed a service plan for the proposed 95th Street Pulse (BRT) corridor for Pace Suburban Bus. Matt's team created a detailed running time model, station to station travel times,

assessed operating savings in scenarios with TSP and queue jumps, developed operating statistics, and created draft timetables and schedules. These materials were used by Pace in their decision-making process as the project moves forward.

***Pace I-294 Corridor Study (2020-21), SUBURBAN CHICAGO, IL**

Matt was his firm's project manager as a sub-consultant for the I-294 corridor study for Pace Bus. Under Matt's direction, his team supported the market analysis, including creating a tableau dashboard of trips and leading a workshop with Pace planners. Matt's team then created service plan options for new I-294 services traveling the corridor. These plans included travel times and frequency, along with distinct route alignments.

***East West BRT Project (2016-18), MILWAUKEE, WI**

Matt was his firm's project manager for the East West BRT Feasibility Study in Milwaukee. The study analyzed BRT alternatives connecting downtown to the Milwaukee Regional Medical Campus six miles to the west. Particularly challenging was the four-month timeframe for the study – a result of Milwaukee County DOT's desire to submit the project to FTA for consideration in the FY2018 budget. Matt completed mainline and background bus analysis for each alternative, including the estimate of run times with and without dedicated lanes.

***NoHo-Pasadena BRT Technical Study (2015-2020), LOS ANGELES, CA**

Matt was part of two phases of the NoHo-Pasadena BRT study at a previous employer. Phase 1 considered various BRT alignments to connect North Hollywood Red/Orange Line Station to Burbank, Glendale, and Pasadena job centers. Phase 2 refined the concept and helped steer the project through alignment criticism in Eagle Rock. Matt's work included the development of a service plan for each alignment, including the calculation of key operating statistics and travel time estimates.

Mitchell Rasor: RLA, CLARB
Principal

Mitchell Rasor, Rasor Principal, has over 20 years of experience with landscape architecture and urban design focusing on the integration of mobility, downtowns, waterfronts, and economic development. He founded Rasor in 2000. Mitchell has been honored by numerous organizations including the Maine Association of Planners (seven times), GrowSmart Maine (four times), The National Endowment for the Arts, The AIA, The ASLA, MaineBiz, MoMa/PS1, The EPA, and The Congress for The New Urbanism.

Select Projects

- 21st Century Downtown Master Plan, North Windham, ME
- 3 Lincoln Street Master Plan, Biddeford, ME
- Antrim Commons Mill Site Mix-Used Redevelopment, Antrim, NH
- Housing Planning and Design: Rasor is currently designing and permitting 600 units of housing in Topsham, Westbrook, Gray, Lewiston, and Scarborough.
- Bath Road / Route 1 Master Plan, Wiscasset, ME
- Bayside Transportation / Resiliency Master Plan and Urban Design, Portland, ME
- Beggar's Wharf Master Plan and Design, Rockland, ME
- Beth Condon Route 1 / Memorial Pathway Master Plan, Yarmouth, ME
- Boardwalk Restoration Design and Waterfront Master Plan, Sandwich, MA
- Broadway Corridor Study, Bangor, ME
- Buford Avenue Infill Redevelopment Master Plan, Atlanta, GA
- Bucksport Downtown Master Plan, Bucksport, ME
- Bug Light Waterfront Park, South Portland, ME
- COVID-19 Main Street Responsive Planning and Design, Rockland, ME
- Cushing's Point Transportation and Land Use Study, South Portland, ME
- Downtown Revitalization Master Plan, Rockland, ME
- Downtown / Harbor Master Plan, Belfast, ME
- Erie Canal Corridor Master Plan and Port Designs, Monroe County, NY
- Eastside Waterfront Park Design and Permitting, Boothbay Harbor, ME
- Eastern Waterfront Master Plan, Portland, ME
- Falmouth Route 1 Infill Redevelopment Zoning Standards, Falmouth, ME
- Falmouth Shopping Center Redevelopment Master Plan, Falmouth, ME
- Firehouse Village / Route 1 Mixed-Use Redevelopment Plan, Scarborough, ME
- Front Street and Harbor Village Master Plan, Belfast, ME
- Kittery Foreside Transportation, Parking, and Land Use Study, Kittery, ME
- Lincolnville Harbor Master Plan and Market Study, Lincolnville, ME
- Main Street Gateway TOD Master Plan, Westbrook, ME
- Millinocket Bicycle and Pedestrian Plan, Millinocket, ME
- Minot Ave Smart Corridor Study, Auburn, ME
- Morrill's Corner Redesign, Portland, ME
- New Auburn Village Center Master Plan / The Riverway Park and Neighborhood Design, New Auburn, ME
- Pleasant Street Transportation and Land Use Study, Orono, ME
- Reclaiming Franklin Street Master Plan, Portland, ME
- Route 1 Infrastructure and Streetscape Plan, Falmouth, ME
- South Street Village / Turnpike Spur 300-Acre TOD Master Plan, Biddeford, ME
- South End Neighborhood Transportation and Waterfront Master Plan, Bath, ME
- Topsham Fair Mall Road Master Plan, Topsham, ME
- Union Station TOD Resiliency and Urban Design, New Haven, CT
- Waterfront Area Redevelopment Plan, Rockland, ME
- West Commercial Street Multi-Modal Working Waterfront Master Plan, Portland, ME

Education

- Harvard University Graduate School of Design, Cambridge, MA: Masters in Landscape Architecture
- Oberlin College, Oberlin, OH: BA English/Environmental Art



Jeffrey D. Preble, PE

SENIOR PROJECT MANAGER

Project Assignment: Project Manager

Education

B.S., Civil Engineering,
University of Maine, Orono

Professional Registration

Maine
New Hampshire
Connecticut

Experience

38 Years

Joined Firm

2001

Professional Affiliations

Maine Water Utilities
Association (MWUA)

Maine Rural Water
Association (MRWA)

Maine Chapter American
Public Works Association

Presentations

Preble, J., "Replacing a
Package Plant with a Pump
Station" MEWEA Fall
Conference 2020

Preble, J., "Coordinating
Utility Improvements with
Maine Department of
Transportation" MEWEA Fall
Conference 2019

Experience Summary

Jeff is a senior project manager in the Civil Practice Group at Wright-Pierce. He has extensive experience in downtown planning, stormwater management plans, street and highway design and reconstruction, site design, sewer separation, storm drainage projects, surface water treatment, water distribution systems, water system planning and analysis, sewer replacements, wastewater pump stations, sanitary landfills, transfer stations, and recycling and wastewater systems.

Relevant Project Experience

Oquossoc Village Corridor Study, Rangeley, ME

Project Manager for Oquossoc Village corridor study to address community goals around improved road conditions for passenger and recreational vehicular flow and pedestrian and bicycle safety.

Downtown Revitalization Plan, Rangeley, ME

Project Manager for development of a Downtown Master plan for the villages of Rangeley and Oquossoc. Plan will enable the Town to seek Community Development Block Grants for various projects.

Downtown Flood Protection and Parking Updates, Damariscotta, ME

Project Manager for designing flood protection in the community's downtown. Also includes parking updates and stormwater improvements.

Allen Street Reconstruction, Rangeley, ME

Project manager for the reconstruction of Allen Street, including roadway, sidewalk, drainage, water main replacement, and utility services

Climate Adaptation Plan, Rangeley, ME

Project manager for developing a Climate Adaptation Plan for the Town's wastewater collection and treatment system.

Downtown Parking Improvements, Rangeley, ME

Project manager for improving the arrangement of parking stalls in downtown Rangeley. Provided assessment and modifications to existing handicap ramps, curbing and cross walk locations.

Main Street Sidewalk, Rangeley, ME

Project manager for a new sidewalk along Main Street in Rangeley to connect a section of sidewalk to an existing sidewalk on Loon Lake Road.

Overlook Sidewalk, Rangeley, ME

Project manager for the design and permitting associated with a new sidewalk

connecting downtown Rangeley to the Scenic Overlook overlooking Rangeley lake.

Rangeley Building Supply Crosswalk, Rangeley, ME

Project manager for the design of a new crosswalk to serve the employees of a local business. Project involved new handicapped ramps, rapid flashing solar beacons, and sidewalk connections.

Foundry Road Improvements, Livermore Falls, ME

Project Manager for a roadway improvement project undertaken in conjunction with a water main replacement project. Road improvements focused on drainage improvements, refining the profile of the road, and replacing base gravel materials.

Brunswick Avenue, Gardiner, ME

Project Manager for the replacement of a granite block retaining wall, sidewalk upgrades, and mill/fill paving project in downtown Gardiner.

Old Jay Hill Road, Jay, ME

Project manager for reconstruction of Old Jay Hill Road, including drainage, roadway profiles adjustments, and funding agency assistance.

Bald Mountain Road, Rangeley, ME

Project manager for the replacement of two multi-culvert crossings. Project included drainage analysis, permitting, and roadway alignment improvements.

Saddleback Access Road Reconstruction, Dallas & Sandy River Plantation, ME

Project manager for the reconstruction of the Saddleback Mountain Road, including rock removal, drainage improvements, pavement reclamation, and a tunnel for groomer access.

Redington Road Improvements, Dallas Plantation, ME

Project manager for two phases of roadway improvements including culvert replacements, ditching, and paving. Project also included hydraulic and hydrologic analysis of a major stream crossing.

Elm Street Culvert Replacement, Topsham, ME

Project Manager for replacement of a stone box culvert and granite block retaining wall along a State Aid roadway. The project qualified for funding under the MeDOT's Municipal Partnership Initiative.

Railroad Street Improvements, Bangor, ME

Assisted in the design of the Railroad Street improvements project as part of the river park that was developed along the Penobscot River. The reconstruction of approximately 800 feet of Railroad Street involved new utilities including storm drainage, primary underground utilities, water main replacement, and sidewalks.

Front Street Improvements, Bangor, ME

Assisted in the design of the street improvements as part of the river park that was developed along the Penobscot River. The reconstruction involved new utilities including storm drainage, primary underground electrical and communications, and water main replacement, and providing new sidewalks.



Ryan T. Wingard, PE

VICE PRESIDENT, CIVIL PRACTICE GROUP LEADER

Project Assignment: Principal-in-Charge

Education

M.S., Civil Engineering,
Wayne State University

B.S., Civil and Environmental
Engineering, University of
Michigan

Professional Registration

Maine
Connecticut
Florida
Massachusetts
Michigan
New Hampshire
Rhode Island
Vermont

Experience

27 Years

Joined Firm

2007

Training / Certifications

Certified Professional in
Sediment and Erosion
Control # 4630

Maine DEP Certification in
Maintenance and Inspection
of Stormwater Best
Management Practices

Professional Affiliations

American Council of
Engineering Companies
(board member 2016-
present)

American Society of Civil
Engineers (ASCE)

New England Water
Environment Association
(NEWEA)

American Public Works
Association (APWA)

Experience Summary

Ryan has over two decades of water resources-related experience, including stormwater system design, watershed characterization, wastewater system design, and project management. His specialties center on hydrology and hydraulics as they pertain to stormwater, watershed, wastewater, and CSO systems, including dams. He has successfully managed a variety of water resources projects for numerous municipal, private, commercial, and industrial clients. His in-depth knowledge of hydrologic and hydraulic systems is an asset for any water resources related project. He is also a certified professional in erosion and sediment control (CPESC).

Relevant Project Experience

Roadways & Traffic

Oquossoc Village Corridor Study, Rangeley, ME

Principal-in-Charge for Oquossoc Village corridor study to address community goals around improved road conditions for passenger and recreational vehicular flow and pedestrian and bicycle safety.

Downtown Flood Protection and Parking Updates, Damariscotta, ME

Technical oversight for designing flood protection in the community's downtown. Also includes parking updates and stormwater improvements.

Memorial Circle LID Stormwater, Kittery, ME

Principal-in-Charge for design of water quality improvements to address runoff from Kittery's Memorial Circle.

Old Ferry Road Culvert/Tidal Stream Crossing, Wiscasset, ME

Principal-in-Charge for design services for the roadway tidal stream crossing on Old Ferry Road. The culvert is undersized and failing and to be replaced with a bridge that is proper for the unique properties of the tidal stream, protects the surrounding environment, and maintains vehicular traffic on Old Ferry Road with sea level rise considerations over the 75-year design life of the replacement bridge.

West Grand Avenue Flood Mitigation, Old Orchard Beach, ME

Project manager for design of several local improvement projects in the West Grand Avenue area, including modifications to tide gate controls and operations, local stormwater infrastructure improvement, and a flood control berm.

Center Street Sewer Separation Design, Biddeford, ME

Project manager for design of 1,000 lineal feet of new roadway and storm drain and rehabilitation/replacement of existing sanitary sewer.

Presentations

Wingard, Ryan, "Stretching Towards the Finish Line – A 10 Year Journey with Lebanon, NH's CSO Program", presented at NEWEA CSO/Wet Weather Issues Specialty Conference, Portland, Maine, October 30, 2018

Wingard, Ryan, "Enhancing CSO Storage by Integrating Separation and Green Infrastructure into the Back Cove South Storage Conduit", presented at NEWEA CSO Specialty Conference, Lowell, Massachusetts, October 27, 2015

Wingard, Ryan, "Responding to Infrastructure Failure Resulting from Climate and Weather Changes", presented at APWA Fall Conference, Chelmsford, Massachusetts, October 2015

Wingard, Ryan, "Back Cove South Storage Conduit, City of Portland, Maine", presented at MEWEA Fall Conference, Bethel, Maine, September 17, 2015

Wingard, Ryan, "Asset management, CMOM & CSO System Planning", presented at Management Candidate School, Kennebunk, Maine, December 2014

Wingard, R.T., "Climate Change and Infrastructure: Implementing Solutions", presented at the E2TECH Conference Portland, Maine, April 2013

Pleasant Street Sewer Separation, Westbrook, ME

Project manager for the design and construction of roadway, sewer, storm, and water improvements.

Graham Street Sewer Separation Design, Biddeford, ME

Project manager for design of 1,2500 lineal feet of new roadway storm drain and rehabilitation/replacement of existing sanitary sewer.

Kennard/Mitchell/Chestnut/Rochester Sewer Separation, Westbrook, ME

Designed sewer separation in three separate areas of the City including new storm drain, replacement/extension of existing sanitary sewer, new sidewalk, and approximately 2,300 feet of full-depth road reconstruction.

Portland Back Cove South CSO Storage Facility, Portland, ME

Project manager for the design of a 3.5-million-gallon storage conduit including roadway improvements. Also assisted with the development of green/sewer separation projects to optimize the storage conduit operation.

Portland Back Cove West CSO Storage Facility, Portland, ME

Project manager for the design of a 3.0-million-gallon storage conduit including roadway improvements. Also assisted with the development of green/sewer separation projects to optimize the storage conduit operation.

Elm/Union Sewer Separation Design, Biddeford, ME

Project manager for design of 5,000 lineal feet of new roadway and storm drain and rehabilitation/replacement of existing sanitary sewer.

Northern Avenue Roadway Reconstruction, Farmingdale, ME

Project manager for the design of 3,000 feet of roadway reconstruction and associated storm drain improvements.

Phase I Richmond Utility District Sewer, Richmond, ME

Project manager for design and construction of 3,000 lineal feet of sewer including new manholes, roadway improvements, and lateral connections.

Phase II Richmond Utility District Sewer, Richmond, ME

Project manager for design and construction of 3,000 lineal feet of sewer including new manholes, roadway improvements, and lateral connections.

Reggio and Odessa Stormwater Improvements, Old Orchard Beach, ME

Project manager for field work and design to improve roadway and drainage conditions.

Ocean/Seaview Sewer Design, Old Orchard Beach, ME

Project manager for design of 5,000 lineal feet of six-inch and eight-inch sewer including new manholes, roadway improvements, and lateral connections.

Elm/Lincoln Sewer Separation Design, Biddeford, ME

Project manager for design of 2,000 lineal feet of new storm drain and roadway improvements and rehabilitation/replacement of existing sanitary sewer.



Jaime C. Wallace, PE

LEAD PROJECT ENGINEER

Project Assignment: Lead Project Engineer

Education

B.S., Civil Engineering and Environmental Engineering, University of Maine

Professional Registration

Maine

Experience

8 Years

Joined Firm

2016

Professional Trainings/ Certifications

Maine Department of Transportation, Local Project Administration

Inspection/Maintenance of Stormwater BMPs

Introduction to Safety Inspection of In-Service Bridges – FWHA-NHI

OSHA 30-Hour Safety

First Aid & CPR

Experience Summary

Jaime is a Lead project engineer in Wright-Pierce’s Civil/Infrastructure Practice Group. He has experience on a wide variety of civil projects. His responsibilities have included design, permitting, scheduling, construction monitoring on both public and private sector development projects, and third-party inspection on development projects. He has a strong background in erosion control and maintenance, site layout and design, as well as construction administration and oversight.

Relevant Project Experience

Oquossoc Village Corridor Study, Rangeley, ME

Served as project engineer for Oquossoc Village corridor study to address community goals around improved road conditions for passenger and recreational vehicular flow and pedestrian and bicycle safety.

Downtown Flood Protection and Parking Updates, Damariscotta, ME

Served as project engineer for designing flood protection in the community’s downtown. Also includes parking updates and stormwater improvements.

Downtown Parking Improvements, Rangeley, ME

Served as project engineer for layout of parking along Main Street in Rangeley’s downtown area. The existing parking layout caused issues with traffic passage and the new parking layout minimized traffic congestion and improved pedestrian traffic.

Old Ferry Road Culvert/Tidal Stream Crossing, Wiscasset, ME

Served as project engineer for design services for the roadway tidal stream crossing on Old Ferry Road. The culvert is undersized and failing and to be replaced with a bridge that is proper for the unique properties of the tidal stream, protects the surrounding environment, and maintains vehicular traffic on Old Ferry Road with sea level rise considerations over the 75-year design life of the replacement bridge.

Balsam Lane, Goldenrod Lane, and Bower Lane Drainage Improvements, Old Orchard Beach, ME

Served as project manager for the installation of a new drainage system along three separate roadways in Town that have experienced flooding issues. Provided drainage calculations and evaluation for a closed drainage network as well as a series of leaching catch basins.

CDBG Funded Washington Area Improvements, Old Orchard Beach, ME

Served as lead project engineer for a roadway and utility improvement project for the Town. Performed design engineering for roadway and utility improvements for approximately 4,000 linear feet of roadway corridors. The project included

improvements to storm drainage, sewer upgrades, and water line upgrades. The project also included roadway and sidewalk construction, ADA-compliant pedestrian ramps and road crossings, on-street parking considerations, and future potential project connectivity.

Sidewalk Improvements, Harbor & Furbish Roads, Wells, ME

Provided permitting assistance for a sidewalk improvement project. Furbish Road garnered interest from the Rachel Carson Wildlife Preserve due to it being located within the preserve. Permitting efforts included extensive coordination with the Army Corps of Engineers as well as Maine DEP.

Parking Lot Improvements, Northern Light Health Eastern Maine Medical Center, Bangor, ME

Served as lead project engineer for a parking lot rehabilitation project for Northern Light Health's Eastern Maine Medical Center located in Bangor, ME. The parking lot upgrade included hydrologic and hydraulic analysis of a 135-acre drainage area which directs stormwater and sewer overflow through the parking lot. The proposed project included significant storm drainage improvements to alleviate flooding issued within the parking lot.

Parking Lot Improvements, Northern Light Health Northeast Cardiology, Bangor, ME

Served as lead project engineer for a parking lot rehabilitation project for a Northern Light Health property located in Bangor, ME. The parking lot upgrade included phasing of parking lot improvements to maintain traffic flow and patient access to the facility. The project included upgrades to the concrete sidewalks around the building as well as addressing groundwater concerns within the parking lot causing maintenance issues within the building.

Developer Review, Old Orchard Beach, ME

Review of developer plans for rural development. Also served as third party inspector on said development projects.

Fuel Tank Replacement, Northern Light Health Eastern Maine Medical Center, Bangor, ME

Served as project engineer for the replacement of an outdoor diesel fuel tank. Advised the client on requirements based on State Fire Marshal standards. Also provided site layout and design of a concrete slab to support the fuel tank upgrade, along with associated piping upgrades required to meet the clients needs as well as State Fire Marshal standards.

Main Street Rehabilitation Project, Somersworth, NH

Served as project engineer for a roadway and utility improvement project for the city. Performed design engineering for roadway and utility improvements for 7,700 linear feet of roadway corridors. The project included significant utility improvements, storm drain outfall improvements, multimodal planning, roadway and sidewalk construction, ADA-compliant pedestrian ramps and road crossings, and on-street parking considerations.



Jason L. Gallant, PE

SENIOR PROJECT MANAGER

Project Assignment: Structural

Education

M.S., Civil Engineering,
Structural Focus,
Northeastern University

B.S., Civil Engineering,
University of New Hampshire

Professional Registration

Connecticut
Maine
Massachusetts
New Hampshire
Pennsylvania
Rhode Island
Vermont

Experience

26 Years

Joined Firm

2021

Professional Affiliations

American Society of Civil
Engineers (ASCE)

NH ASCE Section President
2005 - 2006

ASCE National Committee on
State Government Relations,
Past Member

American Consulting
Engineers Council

NHDOT / ACEC Consultant
Quality Initiative
Subcommittee on Consultant
Contracts, Past Member

MaineDOT / ACEC Joint
Transportation Taskforce
Committee, Member

MaineDOT / ACEC
Subcommittee on Bridge
Design, Member, Past Chair

Experience Summary

Jason has over two decades of experience in heavy civil and transportation infrastructure engineering throughout the Northeast including project management, project engineering, staff leadership, and development for design and construction projects. His engineering expertise includes design, analysis, and construction of new and rehabilitated bridges and other highway, railroad, and building structures under design-build and design-bid-build project delivery methods. As Senior Project Manager, he provides strategic insight and quality work to our clients in leading projects from concept to completion.

Relevant Project Experience

Oquossoc Village Corridor Study, Rangeley, ME

Transportation lead for Oquossoc Village corridor study to address community goals around improved road conditions for passenger and recreational vehicular flow and pedestrian and bicycle safety.

Old Ferry Road Culvert/Tidal Stream Crossing, Wiscasset, ME

Project manager for design services for the roadway tidal stream crossing on Old Ferry Road. The culvert is undersized and failing and to be replaced with a bridge that is proper for the unique properties of the tidal stream, protects the surrounding environment, and maintains vehicular traffic on Old Ferry Road with sea level rise considerations over the 75-year design life of the replacement bridge.

Access Road Bridge, Maine Water Company, Rockport, ME

Bridge engineer for a new access road stream crossing to support Maine Water Company with the design and permitting of the proposed lagoon system expansion project at the Mirror Lake Treatment Facility. The proposed span is a 20-foot precast concrete plank bridge with precast concrete foundations compliant with MaineDOT vehicular capacity and designed to facilitate rapid bridge construction within the forested project area.

Wilson Pond Road Culvert Replacement, Monmouth, ME

Structural technical advisor for the replacement of the culvert located on Wilson Pond Road. The existing corrugated metal pipe structure is hydraulically inadequate and structurally deficient. The structure will be replaced with a new, larger culvert structure to enhance flow capacity while minimizing ground pressures to low-capacity soils throughout the project area.

Elm Street Retaining Wall and Culvert Replacement, Topsham, ME

Structural technical advisor for replacement of a culvert and 18-foot-high retaining wall / headwall system. The project includes upgraded pedestrian accommodations,

MaineDOT / ACEC
Subcommittee on Alternate
Project Delivery, Past
Member

Professional

Trainings/Certifications

FHWA-NHI Safety Inspection
of In-Service Bridges, 6.7 CEU
Program Manager

OSHA 10-Hour Training

Keolis Roadway Worker
Protection Certification

US Government
Transportation Worker
Identification Credential
(TWIC)

vehicular rail upgrades, and structural upgrades while minimizing impacts to environmental resources, rights-of-way, and utilities in the project area.

Biddeford Riverwalk Extension Design, Biddeford, ME

Project manager and structural technical advisor for design/permitting associated with the mill district river walk and retaining wall reconstruction within the park for pedestrian accessibility that links the cities of Biddeford and Saco. The park is an integral part of the redeveloped and revitalized mill district along the Saco River.

Bridge Load Rating Assignments, MaineDOT, Various Locations in ME*

QA/QC manager and project manager to perform inspection and load ratings throughout Maine under seven contracts between 2013-2020 totaling over 50 bridges. Bridges consisted of straight and “kinked” steel girders with composite and non-composite concrete decks, cast-in-place concrete slabs, precast concrete beam bridges, rigid frame bridges, and glulam timber bridges.

Design-Build, Route 136/125, MaineDOT, Freeport, ME*

Structural engineer for the widening and rehabilitation of the Collins Mill Bridge for Shaw Brothers Construction and the MaineDOT for this design/build project. The bridge was rehabilitated as part of the reconstruction of a three-mile section of road that stretches from Exit 22 on I-295 to the Durham Town Line.

Embden-Solon Bridge #2267, MaineDOT, Embden-Solon, ME*

Project manager for construction phase for the six-span bridge carrying U.S. Route 202A and Maine Route 8 over the Kennebec River between Embden and Solon Maine. The middle spans consist of steel girders non-composite with the concrete deck. The scope of work included replacement the concrete deck with precast deck panels and Ultra High Performance Concrete closure pour option, nominal repairs to the steel superstructure in Spans 2 thru 5, replacement of the concrete beam end spans, repairs to bridge bearings, and repairs to the bridge substructure.

Piscataquis River Bridge Design/Build Project, MaineDOT, Howland, ME*

Project manager for the tender design, final design, and construction phases for this \$11 million project that carries U.S. Route 116 over the Piscataquis River on behalf of Cianbro Corporation. The project design included a new three-span, 582-foot-long bridge, retaining walls, 1,900 feet of roadway approach work, and removal of the existing three-span truss bridge.

I-95 Bridges over Kennebec River/MCRR, MaineDOT, Fairfield and Benton, ME*

Project manager for the design phase for the rehabilitation of three interstate bridges. The structures are seven-span and nine-span 1,000-foot-long steel bridge structures respectively. The bridge over Maine Central Railroad is a three-span 130-foot-long steel bridge. The project included evaluation of phased construction vs. highway cross-overs, bridge condition inspection and evaluation, bridge ratings, deck and joint replacement, partial replacement of deteriorated structural steel members, and partial substructure rehabilitation.

*Experience from previous employer



Kalle Maggio, PLA

LANDSCAPE ARCHITECT

Project Assignment: Landscape Architect

Education

B.L.A., Landscape Architecture, State University of New York, College of Environmental Science and Forestry

Professional Registration

Registered Landscape Architect: New Hampshire, Connecticut, Maine, New York

CLARB-certified Landscape Architect

Experience

10 Years

Joined Firm

2021

Professional Affiliations

American Society of Landscape Architects (ASLA)

Plan NH Visioning for Sustainable Communities

Experience Summary

Kalle brings over a decade of experience in landscape architecture, landscape design, and horticulture to her role at Wright-Pierce, including projects for both public and private clients. She has taken several projects from preliminary design concepts to completion and works closely with engineers, architects, contractors, and horticulturists. Her project experience includes urban landscape architecture, green infrastructure practices, park and recreational program elements, campus master planning, streetscape beautifications, bike and trailway design, traffic calming techniques, sustainable landscape design, signage and wayfinding design, and residential design. She is proficient in AutoCAD Civil 3D, Land F/X, Adobe design programs, and Sketchup.

Relevant Project Experience

Oquossoc Village Corridor Study, Rangeley, ME

Landscape Architect for Oquossoc Village corridor study to address community goals around improved road conditions for passenger and recreational vehicular flow and pedestrian and bicycle safety.

Downtown Revitalization Projects, Rangeley, ME

Landscape Architect for assessment and recommendations for downtown revitalization items in downtown Rangeley and the Oquossoc Village including streetscapes, sidewalks, bicycle/pedestrian, parking area connectivity to waterfront, trailhead enhancements, bus routes, lighting, stormwater utilities, and signage.

Downtown Beautification, Harrison, ME

Landscape Architect for project including redevelopment scenarios of the parks and downtown areas in Harrison. This includes roadway and sidewalk improvements as well as community outreach efforts.

Green Street Rehabilitation, Bath, ME

Landscape Architect for project including 1,300-foot-long roadway and a pavement rehabilitation plan. Several concepts were developed to be presented to residents for sidewalk consolidation. Accommodation of on-street parking was evaluated while trying to minimize impacts to large street trees.

Mount Agamenticus Parking Lot Improvements, York, ME

Landscape Architect for project which included improvements to public safety while paying close attention to the surrounding landscape. Designed new parking facilities that reduce congestion, improve traffic flow and increase parking capacity all the while minimizing the impact on the environment and enhancing accessibility to other site amenities.

Woodman Avenue Improvements, Rochester, NH

Landscape Architect for project including water, sewer, and stormwater infrastructure improvement for a number of streets in Rochester. This includes park improvements in Woodman Park and the Interval Area.

Court & Union Streets Reconstruction, Dover, NH

The street and sidewalk portion of the project includes designing for road widths based on traffic volume, residential use, and bicycle/pedestrian use. The design for incorporates elements and principals laid out in the City's "Complete Streets and Traffic Calming Guidelines." Intersection improvements were also designed considering road geometry, vehicle and bicycle/pedestrian use, and existing right of ways.

Stony Brook Road, Stonybrook, NY

Landscape Architect responsible for field observations and assessments and the development of preliminary design files and construction documents for the Town of Brookhaven's desire to construct +/- 3,600 linear feet of pedestrian sidewalk and bicycle facility improvements along Stony Brook Road. Project improvements included ADA-compliant handicap ramps at street crossings, extension of the existing bicycle lanes from the Firehouse to Development Drive, new traffic patterns and signaling for pedestrians and motorists, ornamental pedestrian-scale lighting, and landscape restoration. (2019)

Bay Shore Bay-Way Corridor Project, Bayshore, NY*

Landscape Architect for the design of the Bay Shore Bay-Way Corridor on Fourth Avenue, between the LIRR station and Montauk Highway and Maple Avenue (and from Montauk Highway to the Fire Island Ferries). Project features included ADA-compliance for sidewalks, bike lanes, mill and overlay of Maple Avenue from Gibson to the Ferries, and select curb and sidewalk replacement along Fourth Avenue. This was a federal-aid project with the New York State Department of Transportation for the Town of Islip. Tasks included visual aids for client meetings, construction plans, and site inventory. (2017 – 2019)

Austin Boulevard Safety Improvements, Island Park, NY*

Landscape Architect for a 2.2-mile safety and corridor improvements project on Austin Boulevard in the Village of Island Park and Hamlet of Barnum Island. Austin Boulevard is a 7-lane urban arterial characterized by nearly continuous commercial development. The project objectives were based on a 2013 study, which included developing conceptual design plans to address vehicular speeding concerns, high accident rates, lack of pedestrian/bicycle facilities, on-street parking, access management, and traffic congestion. The proposed work included milling of the existing riding surface, new top course asphalt repair, isolated full-depth asphalt repair, new curb and sidewalk, curb extensions, planting material, drainage rehabilitation, new sewer force main, and the complete redesign of 14 traffic signals. (Construction Cost: \$15 Million) (2016 – 2017)

*Experience from previous employer

B. Project Understanding

As noted in the RFP, the study's purpose is to:

1. Better align the transportation corridor along Route 1 Mall Road with desired redevelopment: a mixed-use residential village between Ox Point Drive and Haley Road. This will include but not be limited to a road diet analysis, intersection improvements and active transportation recommendations and
2. Identify short-term safety improvements associated with pedestrian crossing needs north of Haley Road and evaluate long-term corridor conceptual improvements such alternatives that provide safe access as well as bicycle and pedestrian accommodations north of Haley Road. This will include but not be limited to a center turn lane and sidewalk(s).

Transportation improvements will be informed, in part, by potential smart growth changes to land use looking to make the corridor more mixed-use, walkable, and sustainable.

The study area is along Route 1 extending from the York Town Line to the north to Ox Point Drive to the south, with the modeling efforts to be focused on the commercial section south of Haley Drive.

Our designated Project Manager, Tom Errico, PE has lived in York county for over 30 years and knows the study area well. The corridor has challenges with high traffic volumes, congested intersections, and the heavy pedestrian demand. Key observations about the corridor include:

- ▶ ***The southerly portion of the study is dominated by high traffic generating retail uses.*** From a land use perspective, developments have evolved as individual development centers and have characteristics of "strip" commercial developments. They tend to function as independent retail centers with limited transportation interaction (vehicle, pedestrian, shared parking, etc.). Tom Errico frequently shops in the area and while he would prefer to walk between retail centers, the sidewalk infrastructure and site layouts are not conducive to walking.
- ▶ ***Access management is a key factor in both safety and mobility problems.*** Left-turning vehicles on Route 1 lead to rear-end collisions and constrain vehicle capacity. Left-turn collisions from unsignalized driveways are challenging and lead to safety problems. **Graphic 1 on the following page is the crash pattern at the Route 1/Kittery Trading Post driveway, which depicts the high incidence of crashes for motorists turning left from KTP.**
- ▶ ***The are sidewalks along Route 1 (although there are gaps in the system) but the experience or comfort level walking on Route 1 is low.*** A greater barrier to walking is the lack of good connectivity between Route 1 and stores. Buildings are set back from Route 1 requiring indirect or incomplete routes. Other than Route 1 sidewalks, there is virtually no inter-connectivity between development sites.
- ▶ ***There is virtually no safe infrastructure for bicyclists in the outlet commercial area.*** This is an extremely high-stress environment that is a barrier to anyone interested in biking to destinations.
- ▶ ***Inter-parcel connectivity between developments is a proven site design strategy for reducing unnecessary vehicle movements on and off the major street.*** There is very little connectivity between developments. There are certainly environmental constraints to implementing roadway connections, but some appear feasible. TYLin and Mitchell Rasor have significant experience in planning for these types of connections, including plans in North Windham, Wiscasset, Topsham and Falmouth.
- ▶ ***As the redevelopment occurs in the study area, particularly from a mixed-use perspective, "Shared parking"***

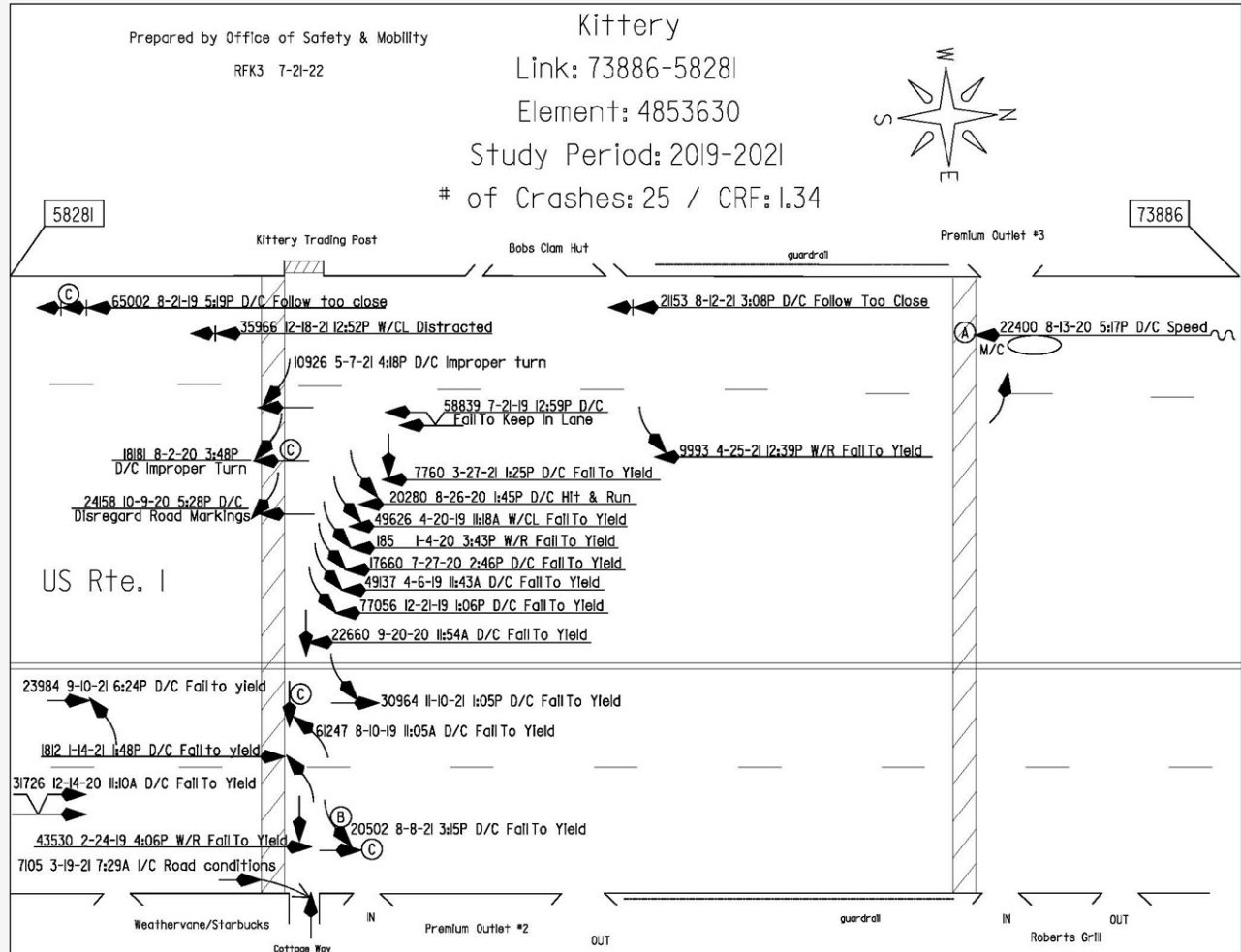
Comprehensive Plan Vision for the Study Area

The Town continues to envision a mixed-use area along Route 1 north of the Kittery Outlets that includes a mix of residential and commercial uses. This area could help support the provision of both multi-family housing opportunities, as well as strengthening the Town's commercial base while providing internal and external connections for pedestrians, cyclists, and motorists. This area could serve as a location for supporting additional multi-family housing units that include a percentage of affordable units. The close proximity to the outlets may also provide an opportunity to address the housing issues that J-1 workers face during their seasonal employment. The Town should also look at the performance standards for both mixed use and multi-family residential development in this area to determine if current lot area per dwelling unit requirements and density restrictions are creating barriers to future development in this corridor. Over time, the mixed use area could extend further south to incorporate the Kittery Outlets if property owners saw an opportunity to begin integrating additional uses into the retail dominated portion of the Route 1 corridor.

should be a consideration to reflect time-of-day and day-of-week parking supply/demand needs. TYLin has worked on a number of projects that evaluated parking needs for mixed use developments, so that an appropriate supply of parking is provided.

- ▶ **The scope of work does note the desire to investigate a “road diet” and TYLin has deep experience is providing traffic modeling outcomes to inform decisions.** In this study, we expect to investigate the feasibility of converting the existing four-lane section to a safer three-lane section, where there would be a single through lane in each direction and a center lane for turning vehicles and landscaping/pedestrian crossing refuge opportunities. We would carefully evaluate this change on level of service and delay and following MaineDOT’s guidelines. TYLin has been involved on a number of similar successful “road diet” projects including Route 1 in Falmouth and Congress Street in Portland.

Graphic 1



SCOPE OF WORK

The TYLin team will identify transportation improvements to improve safety, complement future land use goals, and better accommodate access for all transportation users. The study will not only consider highway safety and mobility but also emphasize improvements for active transportation and transit. The study area is Route 1 from Ox Point Drive to the York Town Line. The section between Ox Point Drive and Haley Road is anticipated to be the primary focus of the modeling different transportation alternative and conceptual renderings of future land use. North of Haley Road, the focus of the study will be on potential highway safety and accessibility improvements.

Transportation improvements will be informed, in part, by potential smart growth changes to land use looking to make the corridor more mixed-use, walkable, and sustainable. This study will identify the opportunities for redevelopment and changes to land use based on the community goals and visions from the Comprehensive Plan as well as the capacity of the adjacent lands to absorb new models of growth and access. Transportation infrastructure should be designed and aligned to promote and sustain desired changes to land use.

According to the Comprehensive Plan, 74% of residential development since 1999 has occurred outside designated growth areas. There is the potential to guide new residential development to the study area by making the corridor more

supportive of mixed-use (re)development. The Comprehensive Plan also notes that “While the Outlet Malls are currently a viable tax generating commercial use in Kittery, questions have been asked throughout the Comprehensive Plan process about their long term viability and potential need for future adaptation if the retail market changes.” The corridor redesign process will anticipate future desired patterns, mixes, and scales of uses to best promote economic development, adaptation, and resiliency.

TASK 1 – PROJECT KICK-OFF MEETING

The TYLin team will meet with the study team including representatives from the Town of Kittery, KACTS and MaineDOT under a collaborative planning process as follows:

- ▶ Identify and understand local issues
- ▶ Identify and understand relevant state and federal regulatory requirements
- ▶ Finalize scope of work
- ▶ Identify previous related study efforts and available data
- ▶ Identify traffic data that will need to be collected
- ▶ Identify baseline environmental data that will need to be collected
- ▶ Identify existing and future Active Transportation uses and concerns
- ▶ Identify existing transit on the corridor and discuss future opportunities
- ▶ Prepare preliminary study purpose and need

TASK 1 DELIVERABLES

Project Site/Kick-off Meeting, study team meetings, Study area Walk meeting and draft Study Purpose and Need Statement. Meeting materials and notes are to be provided.

TASK 2 – REVIEW AVAILABLE DATA

The TYLin team will review available information provided by the Town of Kittery and MaineDOT. These will include, but not be limited to, the following:

- ▶ Kittery Comprehensive Plan
- ▶ Kittery Pedestrian & Bicycle Master Plan
- ▶ Kittery Flood Resiliency Summary
- ▶ Kittery Capital Improvement Program
- ▶ Recent MaineDOT traffic counts and crash summaries for the Study Area
- ▶ Available land use and economic development information that could affect transportation in the study area provided by the town of Kittery.
- ▶ Other relevant reports, studies, and policies
- ▶ Collect additional traffic data as required

For this study we have assumed the following study area intersections:

- ▶ Route 1/Ox Point Drive (unsignalized) MaineDOT Count 7/26/2022
- ▶ Route 1/Old Wilson Road (unsignalized) MaineDOT Count 7/26/2022
- ▶ Route 1/Wilson Road (signalized) MaineDOT Count 7/20/2022
- ▶ Route 1/Cottage Way/Kittery Trading Post (unsignalized) MaineDOT Count 7/26/2022
- ▶ Route 1/Roberts Maine Grill Entry (unsignalized) MaineDOT Count 7/26/2022
- ▶ Route 1/Roberts Maine Grill Exit (unsignalized) MaineDOT Count 7/26/2022
- ▶ Route 1/Kittery Premium Outlet (signalized) MaineDOT Count 7/20/2022
- ▶ Route 1/Outlets at Kittery (signalized) MaineDOT Count 7/20/2022
- ▶ Route 1/Haley Road (signalized) MaineDOT Count 7/20/2022
- ▶ Route 1/Cutts Road (unsignalized)
- ▶ Route 1/Southside Road/Beech Ridge Road (signalized)

INTERSECTION TURNING MOVEMENT COUNTS

As noted above MaineDOT collected intersection turning movement volumes at almost all of the suggested study intersections during the summer of 2022. It



should be noted that the intersection counts were performed during the weekday. There are tow locations where counts are not available. If deemed critical, it is assumed MaineDOT or KACTS will perform the counts. If it is desired to have Saturday traffic volume data, it is assumed MaineDOT or KACTS will obtain this information.

CRASH DATA

We have research MaineDOT records for the most recent three-year period (2019 to 2021) and the following locations are designated as High Crash Locations per MaineDOT criteria.

- ▶ Route 1 from McDonalds to Wilson Road (25 Crashes/CRF=1.34)
- ▶ Route 1 from Ridley Road to Wilson Road (8 crashes/CRF=1.48)
- ▶ Route 1 from Old Wilson Road to Ridley Road (9 crashes/CRF=1.52)

We will obtain crash reports and crash diagrams from MaineDOT

TASK 2 DELIVERABLE

A technical memorandum summarizing existing information and a proposed data collection program to be discussed at the Kick-Off meeting.



TASK 3 – ASSESSMENT OF CURRENT CONDITIONS

The TYLin team will evaluate the existing traffic conditions in the study area. The assessment will include:

- ▶ Analysis of current traffic conditions of the study area. The analysis will include traffic patterns, capacity, speeds, and crash experience.
 - TYLin will summarize existing traffic volume data including intersection turning movement diagrams, time of day volume variation, vehicle classification, pedestrian and bicycle volumes, etc. Data on seasonal variation will be included.
 - For this study it is assumed that the Town Police Department will collect speed data.
 - A key decision for this study will be what time period should the analysis be performed for. This will be a topic for discussion at the kick-off meeting. As noted previously, MaineDOT collected data on a weekday, when Saturday conditions may be the design condition, or have higher traffic volumes.
 - TYLin will develop a Synchro/SimTraffic model for evaluating existing or base line conditions that will include output on level of service, delay, and vehicle queues. We will include all intersections as noted in Task 2 in the model.
 - For High Crash Locations, we will summarize crash patterns and contributing factors. Additionally, a review of pedestrian and bicycle crashes will be documented.
- ▶ Identification of bicycle and pedestrian deficiencies in the study area. TYLin will conduct an inventory of existing conditions. This will include ADA compliance, pedestrian signal conditions, width, and traffic control.
- ▶ Identification of transportation vulnerable users and equity concerns. The project team will work with the Town



and the community to identify existing and future potential vulnerable users of the study area and how improvements can address equity and accessibility concerns. Vulnerability is determined by a number of factors including, but not limited to age, income, seasonal employment, and disability.

- ▶ Review Maine’s Climate Council Plan for any implications regarding Route 1 in Kittery. The project team will review Climate Council materials to understand how changes to seasonality, sea level rise, and other issues may inform planning efforts for the study area.
- ▶ Review analyses with the study team and discuss possible recommendations. We will identify a list of potential alternatives for consideration.
- ▶ The transit team’s assessment will include:
 - Reviewing applicable recent studies such as the Southern Maine Transit Assessment (2022) and the Town of Kittery and Portsmouth Naval Shipyard Joint Land Use Study (2022).
 - Assessing existing transit services on Route 1 and adjacent streets, as well as the connectivity to/from important destinations such as the Naval Shipyard at Seavey’s Island, Portsmouth NH, and Dover NH.
 - Analyze demographic and origin-destination data, as well as any anecdotal information the town can provide, to fully understand travel demand.
- ▶ We will perform a desktop screening of environmental conditions to identify known environmental resources in the study area such as
 - Registered historic properties or properties likely eligible
 - Public parks and recreation areas
 - Wetlands
 - Endangered species such as bald eagle nests
 - Etc.

Data will be collected from the following sources: MaineDOT’s Mapviewer, US Geologic Survey Topographic Quadrangles, Maine Office of GIS, Natural Resource Conservation Service’s Soil Survey, DeLorme’s Maine Atlas and Gazetteer, and National Wetlands Inventory.

- ▶ Existing zoning and standards as well as the Comprehensive Plan goals and vision for the area will be reviewed and summarized. A review and mapping of lands and properties supporting development and redevelopment will be completed to understand the capacity of the area to support growth and how transportation improvements can guide and promote the desired mix of uses and patterns of growth.
- ▶ Complementing a review of existing standards, zoning, and land capacity, will be a character

mapping of the area to identify existing, underlying, and emergent trends in land use and ecology to create a dynamic understanding of the study area as an evolving place.

- ▶ Assess current utility conditions (field work and CCTV not included) based on available utility information provided by the client relative to material and age. Assess current asset locations relative to sea level rise elevation predictions.



TASK 4 – ASSESSMENT OF FUTURE SCENARIOS

The TYLin team will evaluate future traffic volumes based on traditional growth forecasts and considering known development and land use changes as part of the land use build-out scenarios. This will include:

- ▶ A 2045 forecast of traffic volumes in the study area, based on historical traffic data and available MaineDOT traffic forecasts. TYLin will coordinate closely with MaineDOT on historic growth rates to estimate future peak hour volumes. For localized future development, TYLin will utilize the ITE Trip Generation Manual to estimate increased traffic volumes. It will be important to reasonably estimate this growth, without over predicting future conditions.
- ▶ Analysis of future traffic volume conditions of the study area. Analysis of alternatives under future existing conditions to prevent or minimize loss of service. The analysis will include predicted change in mobility and crash rates. TYLin will utilize the Synchro/SimTraffic model for evaluating intersection and roadway performance under future No-Build conditions and with improvement alternatives.
- ▶ Analysis of existing and recommended access management changes. TYLin will conduct an inventory of existing driveways and document existing deficiencies according to MaineDOT and Town standards. We will make recommendations as it relates to reducing the number of driveways to a business/lot; narrowing or modifying driveways; combining or sharing driveways; providing inter-parcel connections; and identifying optimal access points for future undeveloped parcels.
- ▶ Review of possible changes to the lane configurations including a “Road Diet”.
- ▶ Review of possible traffic signal modifications and implementation of traffic demand management. This will include a review of traffic signal timing and phasing and compliance with standards in the MUTCD.
- ▶ Analysis of impacts to bicycle and pedestrian facilities. This will include identifying recommendations for upgrading existing sidewalks, expanding the existing sidewalk systems, intersection treatments, midblock crossings (upgrading existing and adding additional crossings), and considering separate shared-use paths through the area. This will include crosswalk design and warning systems. We will evaluate opportunities to improve the design of the existing shoulder through enhanced signage and markings, particularly through high conflict areas. We will assess opportunities to gain additional width for the bike lanes, by repurposing the existing cross-section via lane width narrowing. Additionally, we will investigate intersection treatments for improved safety.
- ▶ The Sam Schwartz team has worked with both small and large communities across the US to envision, plan, and implement transit and micro-transit services, match services to the community needs, considering demographic and geographical conditions as well as political and financial constraints.

Sam Schwartz will work closely with the Town of Kittery to research existing conditions and provide recommendations regarding future transportation options and potential transit services for Route 1. The result will be short- and long-term recommendations of actions the Town could take to support transit and other active transportation alternatives along the corridor.

Once existing conditions are understood, the team will work with the study stakeholders and the City of Kittery personnel to assess the corridor’s potential in terms of transit services and active transportation. Recommendations will include potential locations along the corridor where transit services may be desired, days and times when demand for transit would be higher, and conceptual transit infrastructure required to support the service.

- ▶ Working with available modeling, the study team will incorporate climate change into the design and cost

estimates for future facilities as well as the ability of adjacent lands to absorb changes in land use and intensity.

- ▶ Review analyses with team members and discuss possible recommendations and additional alternatives to be considered. Refer to Task 6 where we discuss the importance of the study team and meeting regularly throughout the study duration.
- ▶ Future scenarios will be directly informed by a range of growth concepts for the study area. The study team will respect both the continuity and the nuances of the corridor when integrating visions for land use and transportation. Five different conceptual renderings will identify varying future scenarios for land use and how transportation infrastructure can be most context sensitive to future needs. Plans, sections, and renderings at key locations will convey the intent of the scenarios to help the community understand the implications of different approaches to growth management and economic development.
- ▶ Assess opportunities to renew existing utilities during future roadway improvements driven by growth forecasts. Assess opportunities to improve roadway structures or drainage networks to account for seal level rise elevation predictions.

TASK 5 DEVELOP PRELIMINARY RECOMMENDATIONS

The TYLin team will develop recommendations based on effectiveness of meeting the study Purpose and Need Statement. These recommendations may include low-cost improvements, a recommended roadway cross-section or cross-sections to improve the consistency of the study area corridor for its users, and other roadside or off-road improvement recommendations. Tasks will include:

- ▶ Recommendations for all transportation modes based on effectiveness and viability from a regulatory perspective. Measurements for effectiveness will include benefits to mobility and safety, cost and practicality of implementation, and ability to meet the purpose and need. While this study may include features such as traffic calming, road diet, etc., that reduce mobility, the recommendations will document Level of Service and attempt to maintain acceptable LOS service levels.
- ▶ Recommendations will include an environmental analysis of primary, secondary, cumulative impacts, etc., including anticipated future costs of remaining planning, design, and construction phases.
- ▶ Planning-level cost estimates for recommendations (including construction and potential right-of-way costs).



- ▶ Recommendation for phasing of implementation.
- ▶ A draft report containing the analysis of existing and future conditions, alternatives analysis, and recommendations, including a matrix summarizing recommendations along with an appendix of traffic and crash data.
- ▶ Basic conceptual renderings of recommended alternatives on aerial photography.
- ▶ Recommendations that will include up to five conceptual renderings of Route 1 adjacent land use in the future as a mixed-use residential village. These graphics will help the community visualize different outcomes for future economic development strategies as reflected in the built environment. Transportation improvements will be context sensitive to existing conditions as well as desired scenarios for growth and change.

TASK 6 PUBLIC AND AGENCY FEEDBACK

We view this task as one of the most important for progressing the project and gaining consensus on recommendations. TYLin is known for producing effective public outreach programs.

STUDY TEAM MEETINGS

We have programmed for five study team meetings over the duration of the project. We would expect meetings to occur at these milestones:

- ▶ Kick-Off Meeting
- ▶ Following Completion of Task 3 (Existing Assessment) and preparing for first Public Meeting
- ▶ During Task 4 (Assessment of Future Scenarios) and preparing for second public meeting
- ▶ Review and Feedback on Draft Recommendations
- ▶ Draft Final Report Review and Preparing for third public meeting



PUBLIC MEETINGS

Three (3) public meetings are proposed. The first meeting would be conducted following the project kick-off meeting, an assessment of current site conditions, and the identification of critical project constraints. The purpose of the meeting would be to present general project information and to gather initial information on local concerns. Following the initial public meeting the Study Purpose and Need Statement will be updated to include any required information identified by the project study team. The second public meeting would be held to discuss future assumptions and scenarios that were evaluated. The last public meeting would be held to present study findings and draft recommendations and to gather any additional public concerns. We can adapt our presentations to be a standalone public meeting or as an agenda item at a Town Council meeting.

We will also work with study team to identify key stakeholders and organizations. We will engage with these stakeholders through interviews to understand issues and opportunities facing Route 1.

All work as endorsed by the study team will be posted on the town website during the course of the project to maintain transparency and provide a positive feedback loop for the community to comment on the work and help shape the final recommendations.

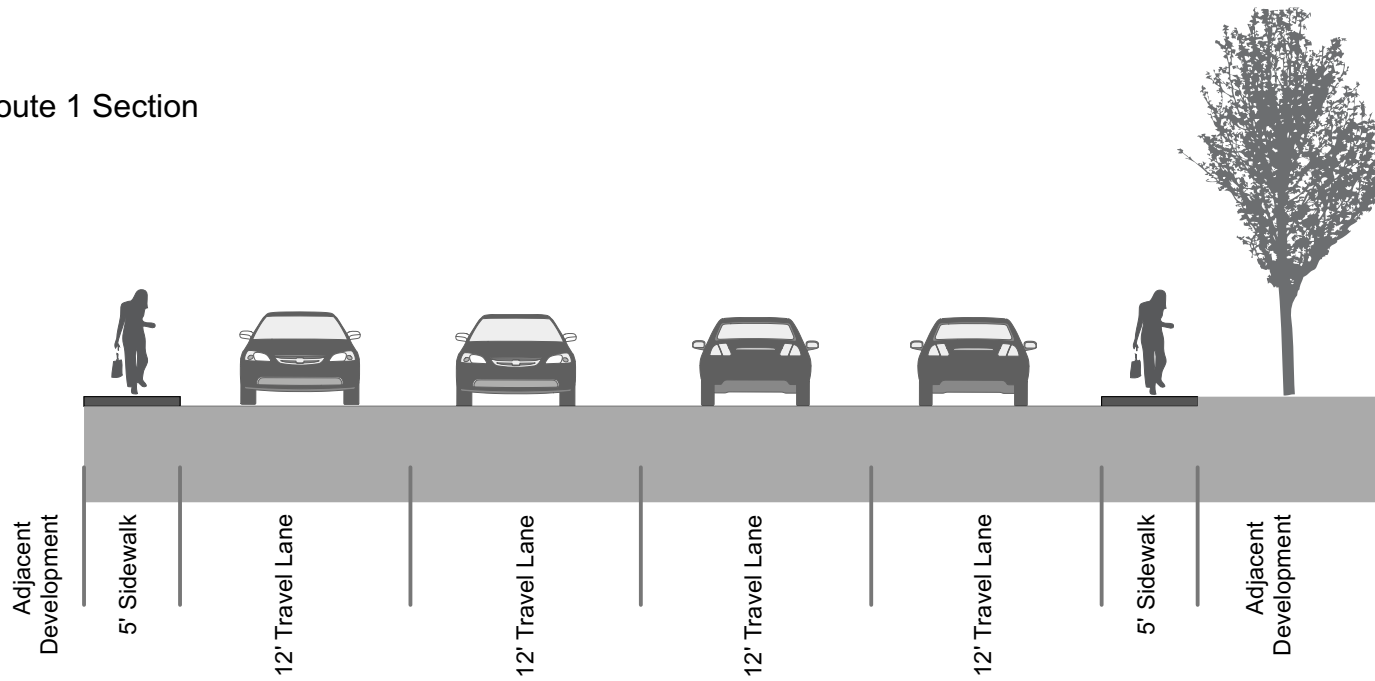
TASK 7 – DRAFT AND FINAL REPORT

The Tasks discussed previously will be combined into a final narrative report documenting the project.

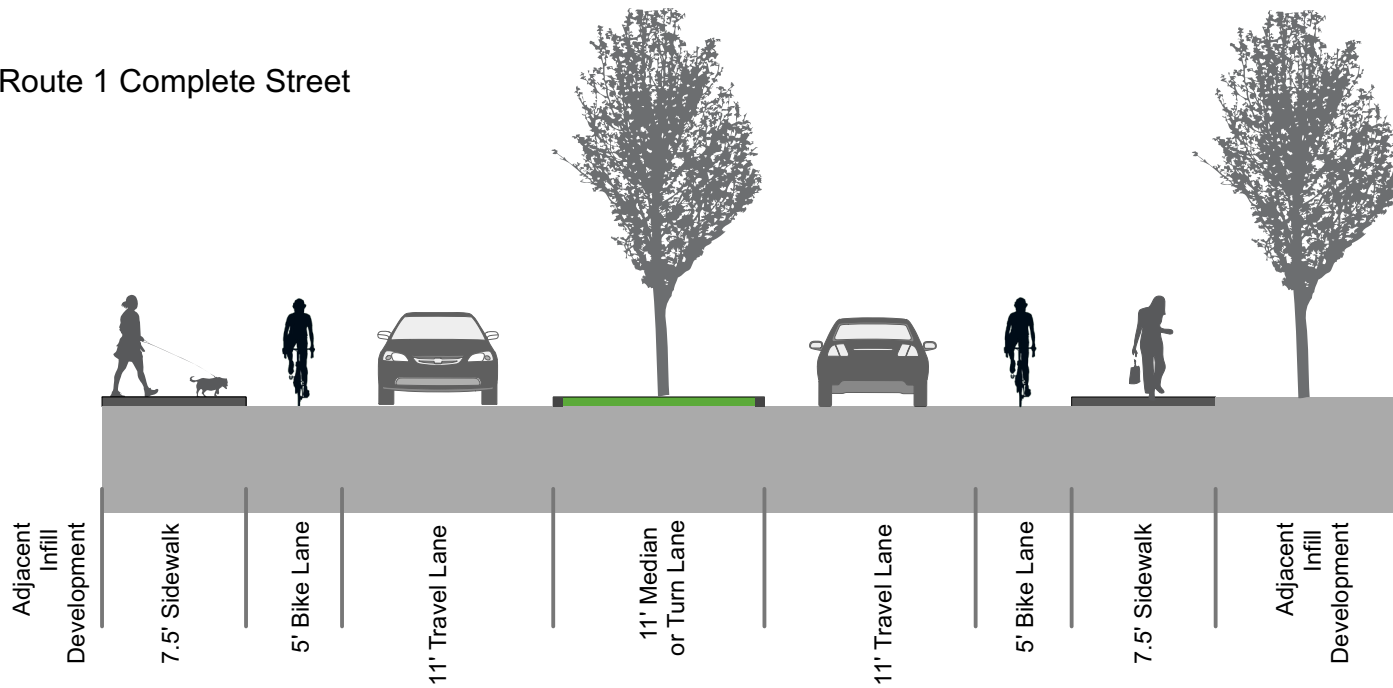
The report will include an executive summary, narrative of the study process, a description of the various alternatives considered, documentation of the evaluation criteria, and illustrations of conceptual designs and cross sections for the preferred alternative. The final report will incorporate all applicable technical memorandums. It is assumed that PDF copies of report will be provided.

An example of a potential Complete Streets concept for Kittery can be found on the following page.

Kittery:
Existing Route 1 Section



Kittery:
Concept Route 1 Complete Street



C. Prior Experience

KITTERY FORESIDE LAND USE, PARKING AND TRANSPORTATION STUDY | KITTERY, MAINE

TYLin developed transportation recommendations for the Foreside area of Kittery that experiences traffic congestion and parking challenges associated with successful commercial developments and commuter traffic from the Naval Shipyard.

TYLin conducted this study in the economically vibrant area of Kittery Foreside. The Study involved developing recommendations on transportation circulation, parking and land use that allow for a sustainable growth plan that ensures development intensities do not degrade the village character while allowing for reasonable economic growth.

Key tasks included, reviewing current parking requirements for site plan approvals; identifying strategies for increasing parking supply and efficiencies; evaluating the conversion of Government Street and adjacent side streets from their one-way configuration to two-way flow; and reviewing on-street parking regulations for improved parking turnover and utilization.

ROUTE 103 IMPROVEMENTS | KITTERY, MAINE

The project involved the design of proposed upgrades on approximately ½ mile of Route 103 beginning east of the State Road/Walker Street intersection, extending along Walker St and Wentworth Street, and ending at the Wentworth Street/Whipple Street intersection.

This urban roadway corridor included on-street parking and variable width sidewalks. The roadway is one of the primary access roads to the Portsmouth Naval Shipyard and is very heavily travelled at certain times of the day. The purpose of the project was to improve the pedestrian facilities, incorporate access management features, improve safety for all users, and upgrade both the existing drainage facilities and the efficiency of the traffic signal at the Walker Street/Wentworth Street intersection.

TYLin was responsible for completing Conceptual through Final PS&E design packages for the Route 103 improvements. This included project management, coordination with the Town, local Planning Commission, and Naval Shipyard. Design tasks included traffic analysis, development of roadway typical sections, minimizing Right-of-Way impacts, designing upgraded and new sidewalks, revising the existing drainage system to accommodate the proposed changes, relocating/upgrading curbing, adding crosswalks, implementing traffic calming measures where appropriate, designing a new traffic signal system, developing proposed pavement marking and signage needs, and developing Maintenance of Traffic measures. As part of this project, TYLin also coordinated with an on-going Land Use/Circulation/Parking Study and conducted two public meetings.

PORTSMOUTH NAVAL SHIPYARD TRANSPORTATION STUDY | KITTERY, MAINE

This study included the collection of transportation data and development of a VISSIM Model that simulated existing transportation conditions associated with morning and afternoon shift changes at the Portsmouth Navy Shipyard (PSNY). Severe congestion occurs due to the large number of employees arriving and departing the Shipyard. The VISSIM model was being used to test the effectiveness of various improvement actions and as a tool for presenting finding to a broad group of decision-makers including the Department of Defense. The key purposes of the study were to model and assess strategies to improve traffic conditions, which included:

- ▶ Implementing Adaptive Traffic Signal Control
- ▶ Installing new traffic signals at PNSY gate locations and on-site intersections
- ▶ Investigating transportation demand strategies including remote parking facilities, carpool/vanpool/bus transit expansion, telecommuting, shift hour changes, managing non-employee traffic, and improving to bicycle and pedestrian infrastructure



Kittery Foreside Land Use, Parking and Transportation Study

- ▶ Identifying roadway infrastructure improvements to increase vehicle capacity
- ▶ Identifying neighborhood traffic management and traffic calming
- ▶ Installing real-time travel time and delay information

PISCATAQUA RIVER BRIDGE REHABILITATION | KITTERY, MAINE TO PORTSMOUTH NEW HAMPSHIRE

TYLin was selected to provide Phase I, II, and III preliminary design, final design, construction support, and traffic management services for the rehabilitation of this high volume bridge. Initially, our team performed preliminary engineering studies to determine the scope of repairs and remediation required to maintain the bridge, and to identify a way to move more traffic through the corridor using the existing bridge. TYLin proposed an intelligent transportation system (ITS) to dynamically use the shoulders as a fourth lane in each direction, which will greatly improve traffic flow.

Additional traffic related items included:

- ▶ Transportation Management Plan
- ▶ Maintenance of Traffic layout, signing, detailing, and plan development
- ▶ Detour layout, signing, detailing, and plan development for ramp closures
- ▶ Exit 2 on ramp traffic investigation
- ▶ Final striping layout
- ▶ ITS device layout

This project was recognized with an Honor Award for Engineering Excellence for Traffic Management and Planning from ASCE Maine in 2022.

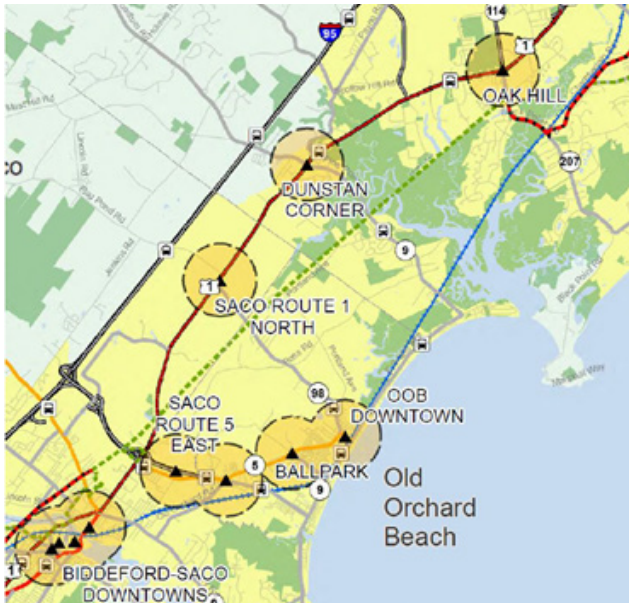


Piscataqua Bridge Rehabilitation

BATH SOUTH END TRANSPORTATION STUDY | BATH, MAINE

The City of Bath, in collaboration with General Dynamics-Bath Iron Works (BIW) and MaineDOT selected TYLin to develop a comprehensive plan of policy recommendations and infrastructure improvements to improve pedestrian safety, reduce parking demand, and improve transportation efficiency.

This comprehensive transportation study, focused on three key objectives: improving the safety of pedestrians, reducing the impact of vehicular traffic on neighborhood streets, and identifying strategies that will improve the availability of parking and/or reduce parking demands.



Route 1 Complete Streets Plan

ROUTE ONE COMPLETE STREETS PLAN | SCARBOROUGH AND SACO, MAINE

The Portland Area Comprehensive Transportation System (PACTS), and its member municipalities of the City of Saco and the Town of Scarborough, selected TYLin to develop a corridor plan that identified and provided concept designs for multi-modal transportation opportunities along Route 1 from Beach St., Saco to the Pleasant Hill area of Scarborough.

TYLin provided the following services for this study: transportation planning, with particular expertise in access management practices, intersection improvement analysis, traffic signal optimization and coordination, multi-modal design, complete streets planning and design, and public process facilitation and presentation skills.

TYLin brought its knowledge of best practices in adapting automobile-oriented suburban corridors into vibrant complete streets to this project with the intent of improving access and safety for all users, including riders of bus transit, pedestrians and bicyclists, and drivers of motor vehicles.



21st Century Downtown Master Plan

21ST CENTURY DOWNTOWN MASTER PLAN | NORTH WINDHAM, MAINE

TYLin provided PACTS and the Town of Windham with planning and engineering services and subsequently the final design for downtown improvements in North Windham. The plan had the following goals:

- ▶ Develop a comprehensive vision for transportation improvements in North Windham
- ▶ Create a transportation system that provides for multiple modes of transportation
- ▶ Further economic development opportunities through improved transportation
- ▶ Focus on implementation by identifying specific projects and funding mechanisms
- ▶ Furthering the "sense of place" in Windham's commercial center

This project was named the 2014 Plan of the Year by the Maine Association of Planners.

PLEASANT STREET CORRIDOR TRANSPORTATION STUDY | BRUNSWICK, MAINE

The Town of Brunswick in collaboration with the Maine Department of Transportation (MaineDOT) conducted a transportation study of Pleasant Street from the I-295/Route 1 area to Maine Street. The study objective was to conduct an analysis of potential improvement strategies to improve congestion and safety along the corridor without widening Pleasant Street. The study reviewed and identified recommendations on:

- ▶ Access management
- ▶ Frontage roads
- ▶ Changes to lane configurations

- ▶ Additions to the roadway grid
- ▶ Traffic demand management strategies
- ▶ Traffic signal modifications
- ▶ Bicycle and pedestrian access

ON-CALL TRANSPORTATION ENGINEERING SERVICES | PORTLAND, MAINE

TYLin is providing the City of Portland with on-call transportation engineering-related services. Thomas Errico, PE, manages this program and has been providing these services to the City for over 12 years. Tom has worked with the City on virtually all aspects of traffic, pedestrian and bicycle improvements in the City, including signalization, signage, pavement markings, and roadway/intersection improvements. TYLin provides services to all departments including Public Services, Parking, and Planning. Work tasks also include development reviews for the Planning Department. Tom frequently makes presentations before the Planning Board, City Council, Transportation Committee, and Neighborhood Groups. A summary of TYLin’s study related assignments for the City is as follows:

- ▶ Bayside Trail
- ▶ Outer Congress Street Phase II
- ▶ Forest Avenue/Exit 6 Ramp Modification Study
- ▶ State Street/High Street Two-Way Feasibility Study and Follow-On Study
- ▶ Marginal Way Master Plan
- ▶ Development Reviews
- ▶ Martin’s Point Shared-Use Path Study
- ▶ West Commercial Street Multi-Modal Study

Marginal Way Master Plan



WASHINGTON AVENUE ROADWAY/INTERSECTION, TRAFFIC SIGNALS, SIDEWALK AND STREETScape PROJECT (LAP) | 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 included 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 included 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.

BROADWAY CORRIDOR COMPLETE STREETS STUDY | BANGOR, MAINE

TYLin and Razor were contracted by Bangor Area Comprehensive Transportation System (BACTS) to perform a study of the Broadway Corridor in Bangor, Maine from the southerly intersection of the Interstate 95 Northbound On-Ramp approximately 0.8 miles north to the intersection

of Broadway and Grandview Avenue. From I-95 to the intersection with Alden Street, Broadway is categorized by the Maine Department of Transportation (MaineDOT) as an Other Principal Arterial; from Alden Street north, Broadway is a Minor Arterial. I-95 is a principal arterial interstate and both Center Street and Grandview Avenue are Major/Urban Collectors.

Broadway serves as a main link between I-95 and major towns including Glenburn and Brewer. In the City of Bangor, Broadway is also an important internal link between major commercial, residential, educational and recreational land uses within the community.

The two primary study goals established at the beginning of the process included:

- ▶ Preserving existing roadway capacity over the long term (2035 design year) to facilitate through traffic movement and minimize congestion while providing safe vehicular access to new and existing development along Broadway
- ▶ Maintaining the functional integrity and safety of the corridor, while accommodating the public and private needs for access and adjacent land parcels

ROUTE 111 TRANSPORTATION ALTERNATIVES/SOUTH STREET CONNECTIONS STUDY | BIDDEFORD, MAINE

The City of Biddeford and York County have experienced significant economic growth trends that are likely to continue. This growth has placed added pressure on accessibility to the downtown area and commercial destinations on Route 111 and interior York County. The Maine Turnpike provides accessibility to the City and York County at Exit 32 and recurring traffic congestion is a problem – particularly during commuter peak hours. This study looks to improve connectivity to the downtown via the construction of a connector roadway from Exit 32 to South Street.

TYLin was contracted to provide overall study project management, traffic engineering, roadway concept planning/engineering, multi-modal planning, and cost estimating. The study is investigating the benefit of constructing a new parallel roadway from the Exit 32 interchange on the Maine Turnpike, parallel to Route 111 towards the west. Additionally, a new roadway connecting South Street to Exit 32 and Route 111 is also being evaluated.

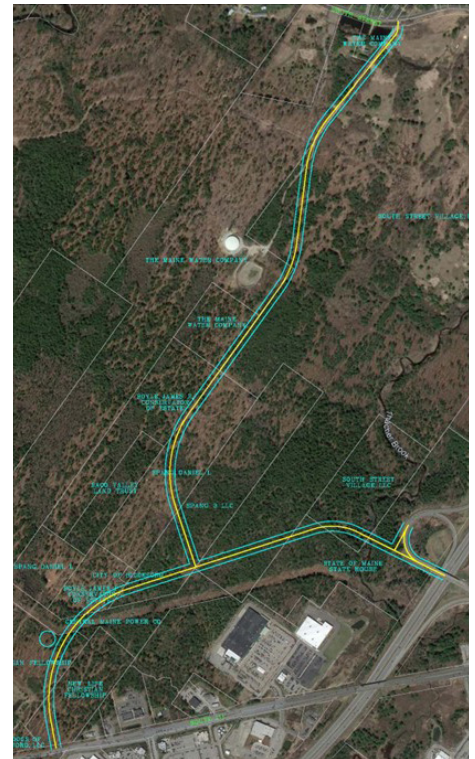
The purpose of the study is to improve connectivity between I-95 via Exit 32, and South Street and downtown Biddeford. The improvements will relieve congestion and improve safety along Route 111/Route 1 and support economic development opportunities given reasonable available state, local, federal and MTA funding.

The Wiscasset Bath Road Master Plan (Plan) maximized development opportunities along Bath Road through the strategic coordination of traffic infrastructure improvements, land use policies and design standards while maintaining or improving the mobility and safety of U.S. Route 1. By planning for growth, Bath Road will increase safety, reduce congestion and enhance the visual character. Ultimately, this Master Plan is intended to help Wiscasset (the Town) shape a future for Bath Road and surrounding areas that reflects the needs and values of the community and preserves the Midcoast Region’s most important arterial highway.

BATH ROAD MASTER PLAN | WISCASSET, MAINE

The Wiscasset Bath Road Master Plan maximized development opportunities along Bath Road through the strategic coordination of traffic infrastructure improvements, land use policies, and design standards while maintaining or improving the mobility and safety of U.S. Route 1. By planning for growth, Bath Road will increase safety, reduce congestion and enhance the visual character. Ultimately, this Master Plan was intended to help Wiscasset (the Town) shape a future for Bath Road and surrounding areas that reflects the needs and values of the community and preserves the Midcoast Region’s most important arterial highway.

The Plan covers the areas adjacent to U.S. Route 1 (Bath Road) from the Woolwich-Wiscasset town line to the northerly intersection of Flood Avenue and Bath Road. The goals of the Plan were to:



Route 111 Transportation Alternatives/South Street Connections Study



Bath Road Master Plan

- ▶ Identify traffic improvements within the highway and on adjacent, developed and developable properties to meet the needs of existing and future development, while maintaining or improving the highway's mobility, safety and capacity
- ▶ Provide concept plans and street networks demonstrating the potential for development adjacent to the corridor that improves local pedestrian and vehicular circulation
- ▶ Develop a responsible plan for coordinated highway infrastructure improvements and transportation enhancements as well as practical financing strategies needed to implement the plan
- ▶ Provide design standards for corridor preservation
- ▶ Identify transportation-related land use strategies incorporating best management practices to facilitate corridor preservation consistent with Wiscasset's Comprehensive Plan;
- ▶ Balance the needs of residents with those travelling through Wiscasset



Bayside Transportation Master Plan

BAYSIDE TRANSPORTATION MASTER PLAN | PORTLAND, MAINE

TYLin developed a plan for transportation infrastructure in the rapidly changing Bayside area of the City. The Bayside Transportation Master Plan is an integrated multi-modal initiative, examining pedestrian, bicycle, vehicular and transit access, connectivity, land use and urban form within the context of the City's and MaineDOT's Complete Streets Policy. The Bayside Neighborhood within Portland has become one of the most dynamic areas of the City with a variety of near and long-term activities that prompted the City and PACTS to pursue a Master Plan to inform transportation initiatives. With so many things happening, a comprehensive review was necessary to ensure a sustainable transportation system is planned and supports land use and economic development goals. The Master Plan provided an overall comprehensive transportation vision for the Bayside Neighborhood, as well as more detailed recommendations for the following Focus Areas:

- ▶ Oxford Street/Portland Street
- ▶ Pearl Street Extension
- ▶ Lancaster Street
- ▶ Preble and Elm Streets
- ▶ Marginal Way
- ▶ Transit Access and Service



BICYCLE AND PEDESTRIAN SAFETY ACTION PLAN (BPSAP) | MARTIN COUNTY, FLORIDA

TYLin successfully completed a countywide bicycle and pedestrian safety assessment for the Martin MPO and recommended over 60 bike/ped safety countermeasures based on FHWA’s 4Es Concept using a corridor approach. An innovative approach developed by TYLin staff to identify crash hot spots to optimize project costs and budget included use of ESRI’s ArcGIS Spatial Analysis Tool for performing quantitative analysis and blending qualitative analysis gathered through field visits and a robust public engagement process. A key product of this Action Plan included developing an implementation plan to advance projects from planning to design and construction phase in an expedited manner. Major TYLin accomplishments on this project include unanimous adoption of this Action Plan by all of the MPO Advisory Committees, Project Steering Committee, and the MPO Policy Board.

BROWARD COUNTY BICYCLE/PEDESTRIAN ACTION PLAN | BROWARD COUNTY, FLORIDA

As a subconsultant, TYLin led the bicycle and pedestrian crash analysis using ArcGIS software package to identify hot spot zones and recommending appropriate safety countermeasures based on the 4Es Concept – Engineering, Education, Enforcement, and Emergency Services. TYLin staff used PBCAT to analyze crash data for selected hot spots. The project included extensive public engagement, stakeholder/agency coordination through public workshops, meetings, as well as Walking and Biking Audits. This Action Plan culminated with the Broward MPO Board’s adoption and included an implementation plan.

Projects representing the prior experience of our subconsultants begin on the next page.

TransitCenter Transit-Priority Cities Support

Philadelphia, PA + Denver, CO + New Orleans, LA



Sam Schwartz partnered with TransitCenter to support U.S. cities in advancing transit-priority projects while building long-term capacity for partnership between their city and transit agencies. Philadelphia, Denver, and New Orleans were selected as the first partner cities. In Philadelphia, the team worked with the City and Southeastern Pennsylvania Transit Authority (SEPTA) to develop improvements to transit operations and pedestrian facilities along Oregon Avenue. In Denver, the team assisted the City and Regional Transportation District (RTD) to design and implement dedicated transit lanes (a first of their kind in Denver) along 18th and 19th Streets through the heart of Downtown Denver—significantly improving Free Metro Ride service travel times. In New Orleans, the team redesigned a major arterial street to prioritize safety, transit, and bicycling with bus bulbs, protected bike lanes, and protected intersection elements. These Projects included several multi-day workshops and strategy meetings with city and agency personnel, development of conceptual level design plans, and collaboration with the cities to develop implementation and public engagement strategies to build consensus and set the project off on a successful path.

Client

City of Philadelphia (PA), City of Denver (CO), and City of New Orleans (LA)

Contact

Christopher Puchalsky
Director of Policy & Strategic Initiative, City of Philadelphia
215.686.9001

Emily Snyder
Urban Mobility Manager,
City of Denver
303.446.3767

Jennifer E. Ruley, PE
Senior Project Manager/
Special Projects Team Lead,
City of New Orleans
504.658.8063

Services

- » Transportation Planning
- » Transit Planning
- » Street Design
- » Traffic Engineering
- » Strategic Planning

Cost

\$150,000

Dates

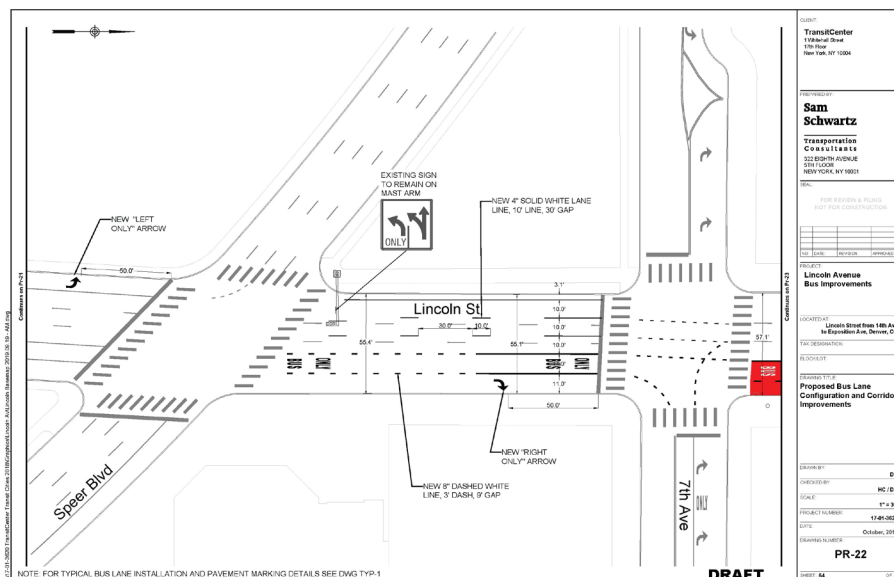
January 2018–August 2019

Key Staff

Michael Flynn, AICP, LEED AP
Project Director

Holly Chase, AICP
Project Manager

Elad Mokady, AICP



Sam Schwartz

A TYLin Company



Hugh Carey Tunnel Traffic and Transit Operations Assessment

Manhattan, New York City, NY

For more than 20 years, Sam Schwartz has been providing exclusive On-Call Traffic Engineering services for the Metropolitan Transportation Authority (MTA) New York City Transit and MTA Bus Company, which operate the 5,000-bus system for the City of New York. In 2018-2019, Sam Schwartz undertook a comprehensive analysis of traffic and transit operations in Lower Manhattan to identify ways to improve bus travel times and reliability for routes using the Hugh L. Carey Tunnel (HCT).

Located in one of the busiest and most complex areas of Manhattan, the study corridor included Broadway, Battery Place, West Street, and the HCT approach. This corridor is heavily used by many of the out-bound express bus routes connecting Manhattan and the outer boroughs of Brooklyn and Staten Island. At the time of the study, traffic delays were experienced all day, most significantly in the outbound direction during the PM peak period when the corridor was service by 26 express bus routes making approximately 600 outbound trips.

Traffic congestion, challenging bus stop locations, and lack of transit prioritization were some of the main delay causes. Sam Schwartz conducted extensive data collection, including observations of traffic enforcement activity and traffic operations, counts of traffic volumes, vehicle classifications, pedestrian movements, and bus passenger activity by stop. Furthermore, the team developed a VISSIM microsimulation for the entire corridor, to accurately model how interactions between buses, trucks, cars, and pedestrians were causing delays, and to enable the testing of potential changes that would improve overall traffic flow and increase bus speeds.

Study recommendations included (1) relocation and consolidation of bus stops, (2) traffic enforcement to provide higher priority to express buses, and (3) consideration of an exclusive bus lane on Battery Place. In the years following the study, the NYC Department of Transportation and the MTA adopted many of the recommendations, which dramatically reduced express bus travel times.

Client

New York City Transit (MTA)

Contact

Donald Healy
Officer, Transportation Support
MTA, NYCT
718.927.7659
Donald.healy@nyct.com

Services

- » Traffic Engineering
- » Transit Modeling
- » Traffic Planning

Cost

\$171,000

Dates

July 2018–October 2019

Key Staff

Jeff Smithline PE, PTOE
Project Director

Elad Mokady, AICP
Project Manager

Ben Young, PE
Project Engineer

Holly Chase, AICP

**Sam
Schwartz**

Central Harlem Avenue Corridor Study

Western Chicago Suburbs, IL



Sam Schwartz was retained to assist on this project that touches 14 different municipalities in the Chicagoland area. The Central Harlem Avenue Corridor Study is an initiative to prepare the ten-mile Central Harlem Avenue Corridor for future rapid transit service. This project seeks to enhance access to public transit through coordinated land use and transportation strategies. The Sam Schwartz team is addressing pedestrian infrastructure deficiencies, identifying economic development opportunities, and designing bus priority treatments for the corridor's constrained right of way. The effort aims to reach consensus among various jurisdictions and municipal stakeholders, and sets the corridor on a path towards future Pulse rapid service.

Client

Pace Suburban Bus in partnership with the Regional Transportation Authority

Contact

Pace Suburban Bus
 Ryan Ruehle
 Rapid Transit Corridor Planner
 550 W. Algonquin Rd
 Arlington Heights, IL 60005
 847.228.2449
 ryan.ruehle@pacebus.com

Services

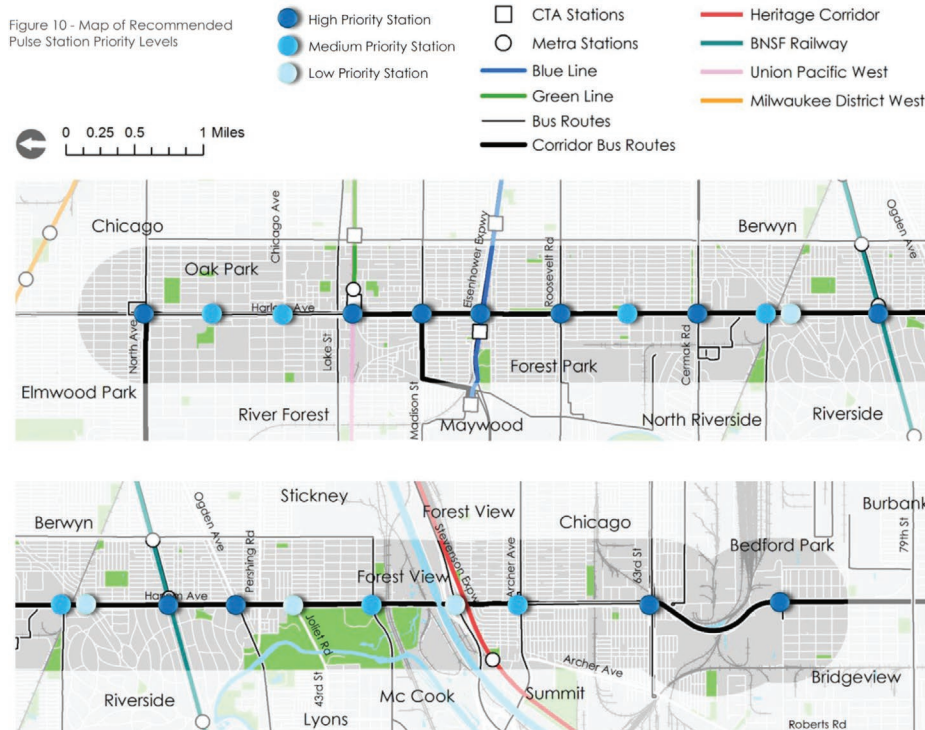
- » Transit Planning
- » Land Use Planning
- » Corridor Planning

Dates

Nov. 2017–Nov. 2018

Key Staff

Joe Iacobucci
Project Director
 Michael Groh
Project Manager



**Sam
 Schwartz**

TCAT Transit Development Plan

Ithaca, NY



The Transit Development Plan (TDP) was TCAT's most robust strategic network study since 2009. Led by Sam Schwartz in 2020-2021, the study re-envisioned and enhanced TCAT's entire bus network and guided network development for the coming decades. Furthermore, by incorporating transit best practices and evolving technologies, it addressed challenges and harnessed opportunities to tailor service to evolving demands.

The project included a detailed assessment of existing performance, a market analysis, an evaluation of unmet/latent demand, scenario development to consider COVID-19 long-term impacts, and the development and evaluation of multiple service scenarios. Additionally, the project included a robust community and stakeholder engagement process, with remote sessions to comply with COVID-19 restrictions.

Sam Schwartz incorporated several advanced technologies for the study: Remix was used to design and test the different bus network scenarios, including schedules and cost estimates; Zoom was used for remote public engagement sessions and small break-out rooms; Social PinPoint was used for interactive mapping and discussion activities; and Tableau was used to understand and visualize the performance of each route by incorporating graphics and big-data sets such as ridership by bus stop, service frequencies, and on-time performance.

The Transit Development Plan considered the potential for microtransit or other on-demand services to supplement lower-ridership bus routes. It also proposed enhanced bus corridors with new, branded on-street amenities. Concept designs for several transit priority treatments and bus stops were developed as part of the TDP capital plan, which can be advanced in the future to detailed engineering designs.



New Bus Network Design: Remix

Client

Tompkins Consolidated Area Transit

Contact

Matthew Yarrow
TCAT Assistant General Manager
737 Willow Ave.
Ithaca, NY 14850
607.277.9388 x520
my1@tcatmail.com

Services

- » Transit Planning
- » Bus Network Redesign
- » Public Engagement
- » Data Analysis
- » Transit Facility Design

Cost

\$221,100

Dates

2020-2021

Key Staff

Mike Flynn, AICP
Project Director
Elad Mokady, AICP
Project Manager
Michael Groh, AICP
Holly Chase, AICP

**Sam
Schwartz**



Rasor collaborated with TY LIN on the revitalization of greying malls and big box development in North Windham as a mixed-use 21st Century Downtown by retrofitting new building forms, green infrastructure, Complete Streets, mobilities, and land uses throughout the 600-acre study area. This iterated land use and transportation study identifies clear short-term and long-term strategies increasing greater efficiencies for future infill and (re) development, public investment, vehicular and pedestrian movement, improved visual quality, and the rebranding of North Windham as the gateway to the Lakes Region. Key metrics for the success of the Study include increased FAR's, increased node to segment ratios, an increased tax base, Route 302 corridor improvements, more mixed-use projects, and the creation of new location efficient residential neighborhoods surrounding the commercial core. The Study was adopted by the Council.

- *Rasor and TY LIN completed Preliminary Engineering Plans for Route 302*
- *Maine Association of Planners Plan of the Year*



Rasor was retained by WePartner Development to prepare a transit-oriented development master plan and urban design for a five-acre site between Buford Highway and I-85.

The one billion dollar project includes 450,000 SF of new mixed-use buildings, a four floor parking structure, and an acre of integrated open space and new streetscapes. Careful consideration was given to creating a campus that formally addresses both Buford Highway and a new street and intersection leading to a bridge that will cross I-85, creating greater connectivity between neighborhoods, encourage pedestrian activity through Complete Streets, and allow for a critical expansion of the Emory University Medical Campus.

This portion of Buford Highway is currently suburban and auto-oriented. The master plan creates a more urban setting encouraging transit-oriented development and a pattern of growth establishing the site as the center of a new revitalization district.

Rasor's planning, urban design, and visualization work lead to the adoption of new codes and policies allowing for growth that is more urban and walkable.



Rasor and TY LIN provided urban design, land use, and streetscape consulting for the Bayside Transportation Master Plan. The intent of the Master Plan is to review and consolidate the goals and accomplishments of previous studies and policies as well as recent and ongoing development impacting transportation, land use, and economic development issues in the 250-acre study area. Large portions of the study area are in mapped floodplains and designated Brownfields. Future growth scenarios were informed by with sea level rise projections to understand site capacity and future mobility needs. The project team followed a Complete / Green Street methodology to forecast growth and transportation needs in order to prepare a comprehensive guiding document integrating mobility and urban design – where the street network supports and guides growth. The Master Plan leverages proposed projects in order to implement mobility / streetscape improvements in a cost effective manner. In addition, the Master Plan identifies critical concepts to be further studied for transportation and redevelopment implications. The above graphics prepared by Rasor (existing and proposed) represent a long-term vision of a one-way to two-way street conversion, in addition to complete street / shared space design components supporting the transformation of the adjacent buildings from low intensity suburban to vibrant mixed urban uses.

The Master Plan process included extensive public outreach and coordination with METRO, numerous City Departments as well as the MaineDOT

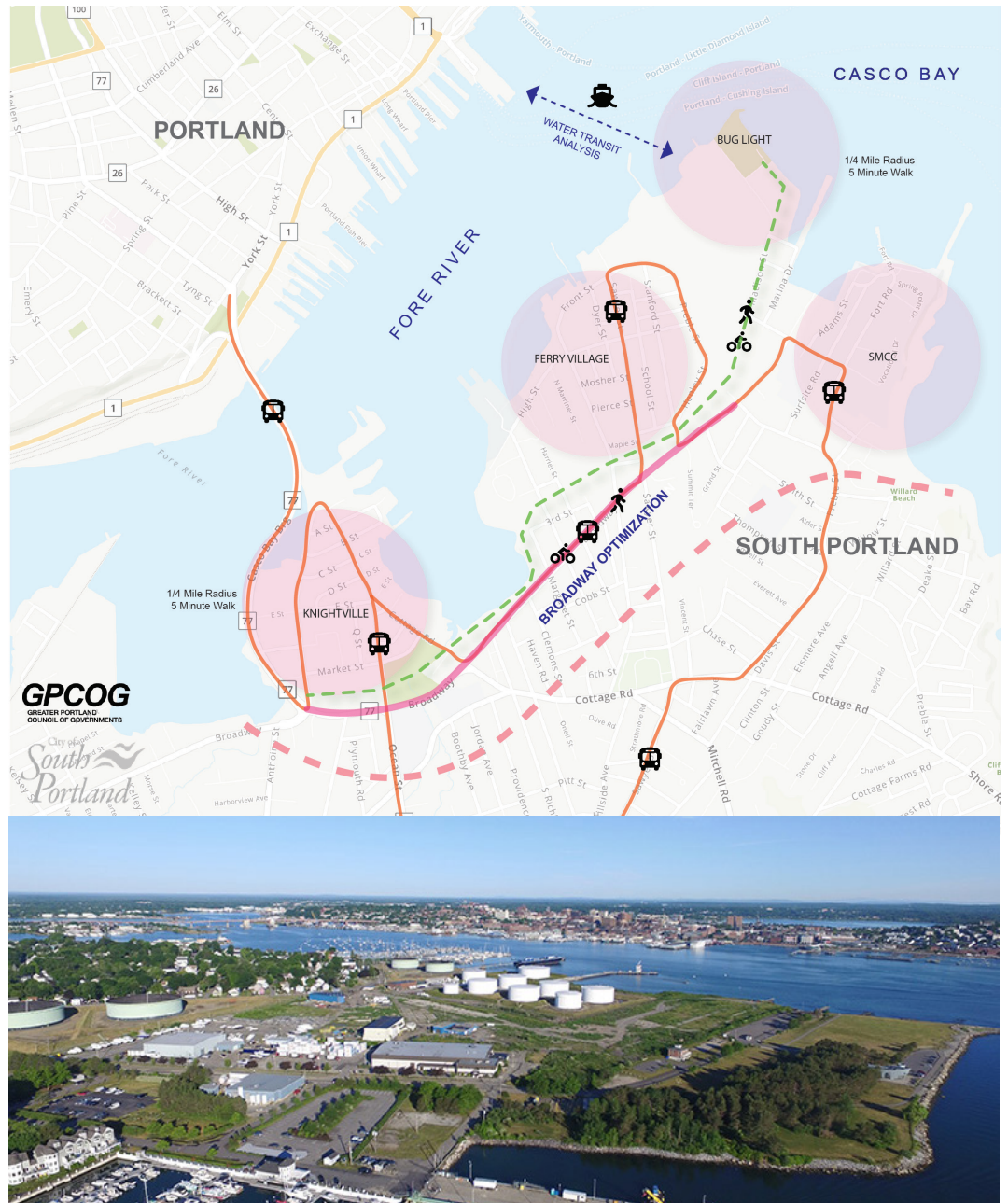


Rasor and Ransom are completing concept designs for the extension of the Beth Condon Memorial Pathway from Exit 17 to the Cousins River Bridge. This key link in the East Coast Greenway will provide safe access from Yarmouth Village to Casco Bay YMCA (also designed by Rasor) in South Freeport.

The BCMP incorporates green infrastructure to mitigate Route 1 stormwater impacts on the Cousins River estuary. The alignment and design of the path was carefully coordinated with businesses fronting Route 1. Exit 17 and the Cousins River Bridge are in advanced design stages and the project team integrated the design of the path with both projects to maximize efficiencies.

The project team coordinated and number of public workshops and managed a stakeholder process that included Yarmouth, Freeport, The East Coast Greenway, MaineDOT, The DEP, the Army Corps, and regional Bike Ped committees.

Rasor prepared a number of photosimulations illustrating the alignment of the path, particularly along the scenic segment adjacent to the Cousins River.



Rasor and TY Lin worked with South Portland on a comprehensive transit and land use study for Cushing's Point. This urban site is located in the heart of the greater Portland area, but only accessible by Broadway or the water. The geography creates a unique and interdependent relationship between transit and growth. How can growth occur without creating unreasonable congestion? What other modes of transit can be introduced or made more robust in order to allow for growth beyond current transit thresholds? As part of this analysis into the role of transit, Rasor completed a water taxi / ferry service analysis between the Portland and South Portland Waterfronts. Service was found to be feasible, but more of an amenity rather than a transit solution unlocking land use potential. Rasor previously designed for Bug Light Park.

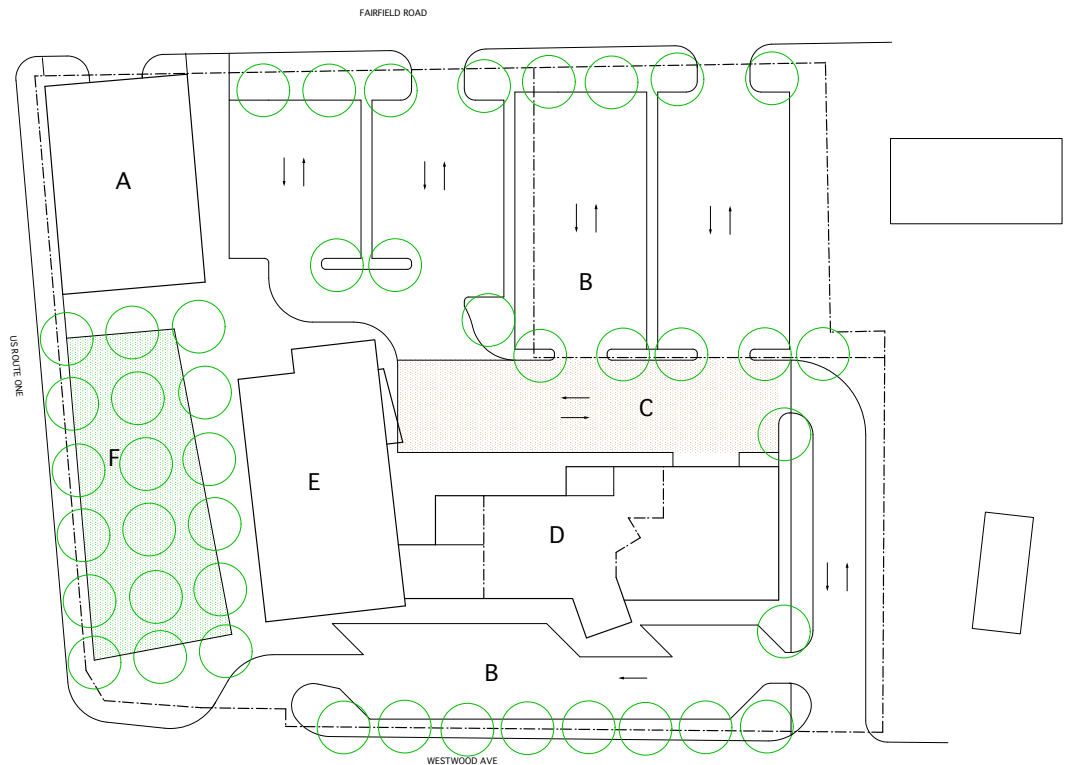


Rasor assisted the Town of Falmouth with the development of new zoning and design standards encouraging economic development by providing more flexibility for infill growth. Increased densities, reduced parking ratios, a greater range of allowable uses, and the retrofitting of parking lots into walkable streets with liner buildings are part of vision for sustainable growth.

Rasor also worked on the Route 1 South Infrastructure Master Plan, leading to the successful referendum for the 11.7 million dollar project. The Master Plan addresses specific issues within the right-of-way, but also supports phased growth leading to a more pedestrian-friendly and mixed-use environment throughout the commercial district. It is recognized that traditional lot-by-lot planning rather than area master planning has fragmented the district in terms of connectivity, scale, and community identity.

The Infrastructure Master Plan was taken to Design Development level documents and estimating in Phase II. The Route 1 Complete Street Retrofit was the most extensive green corridor retrofit in Maine.

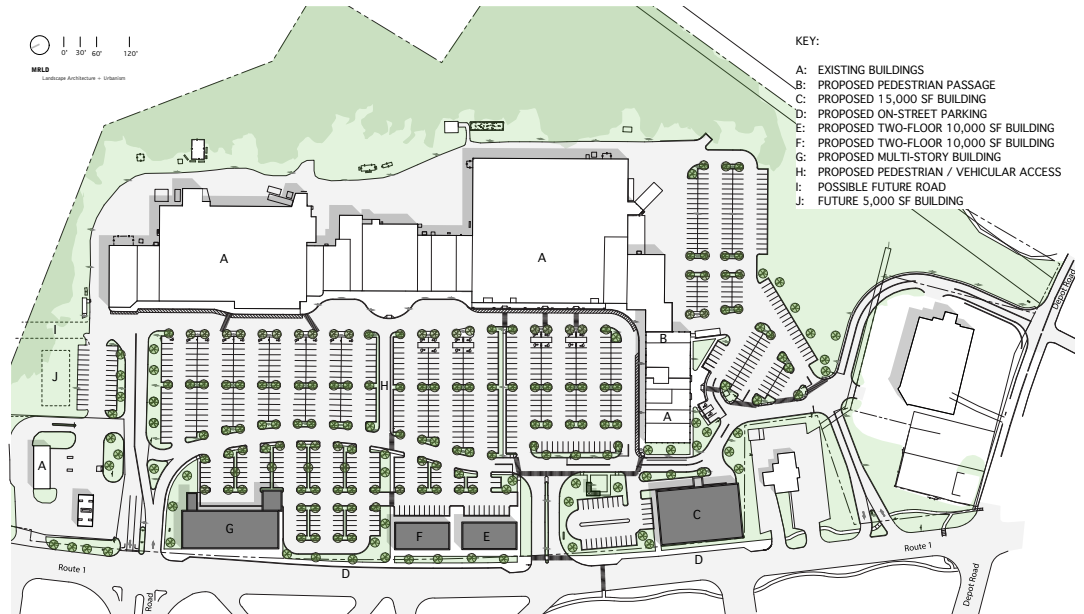
Before and after images were being prepared for the new standards as part of the infill planning process.



Rasor designed and permitted a Route 1 / Oak Hill corridor infill site as a mixed-use village center. Firehouse Village includes repurposed fire / safety buildings, a central plaza, 20,000 SF of office space, a restaurant, a Rosemont Market, a Harbor Fish Market, and 35 units of affordable housing developed by Avesta.

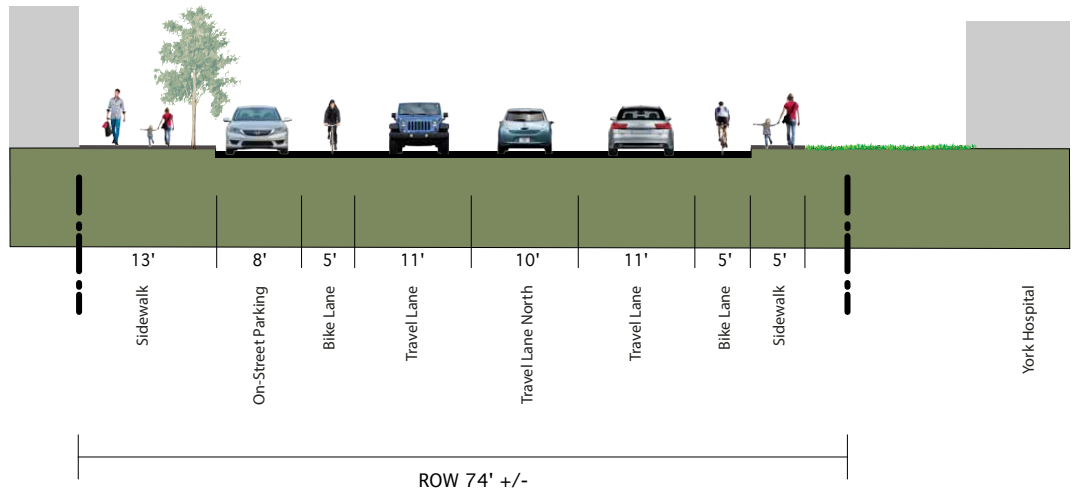
This ideal mix of uses is a precedent for how other corridor sites can be redeveloped in a dynamic and pedestrian-friendly manner.

FALMOUTH SHOPPING CENTER REDEVELOPMENT PLAN | FALMOUTH | ME



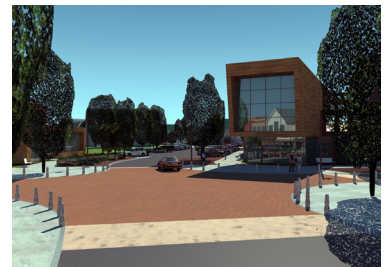
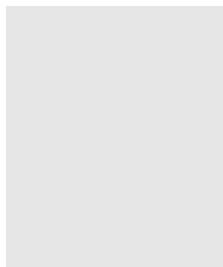
Rasor was retained by Falmouth Realty Associates of Braintree, MA to study long-term redevelopment scenarios for the Falmouth Shopping Center. The master plan addresses market conditions as well as the new design standards and policies for the commercial area of Falmouth. Key goals of the new design standards are to reinforce the sense of place of Route 1 with liner buildings, on-street parking, sidewalks, internal parking lot "street" circulation systems, and strong pedestrian connectivity between developments. Rasor and TY Lin were previously retained by the Town of Falmouth to plan and design a 12 million dollar Route 1 Complete / Green Street retrofit encouraging economic development and pedestrian activity.

Rasor also worked with Woodard & Curran to develop corridor wide green infrastructure retrofits to avoid urban impaired stream status, which would have limited future development opportunities and mixed-use development.



Rasor and TY Lin worked with Kittery on an integrated land use and transportation design study for the Foreside. Kittery Foreside has experienced tremendous growth and investment in recent years and the mobility, parking, and zoning facilities and policies require new thought as to how to best guide future growth while ensuring the character, walkability, and the mixed-use economic vitality of the Foreside is preserved and enhanced. The study also embraced the complexities of the Foreside by carefully addressing spill over growth from Portsmouth and the daily cycle of operations at the Shipyard.

The project team developed urban design, zoning, mobility, waterfront access, and economic development strategies to guide future growth at a pace and scale that is acceptable to the community. Kittery Foreside as with most waterfront areas is complex, but the study resulted in practical and creative solutions that will help the area address growing pains in a thoughtful manner.



Rasor was retained by Pike Industries to prepare a 90-acre master plan for a proposed \$110-million dollar transit-oriented redevelopment of a quarry site. The client previously commissioned a design for a lifestyle center, but refocused the project as a transit-oriented / new urbanist development in response to existing bus service, the potential for activating the Mountain Division Line, which bisects the site, and a park and ride facility serving Southern Maine via the adjacent turnpike exit.

The project balances the needs of pedestrians and vehicles with well-defined street networks and a series of open spaces. Views of signature buildings and the reclaimed quarry are established through street alignments and strategically located parks.

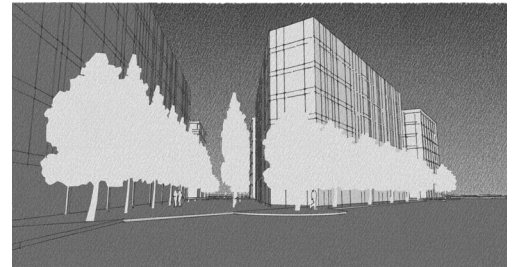
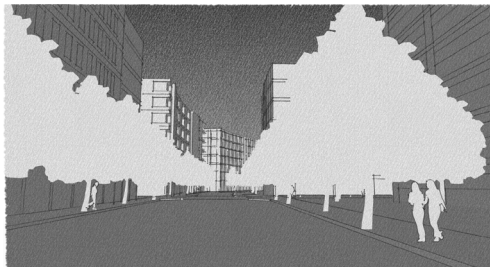
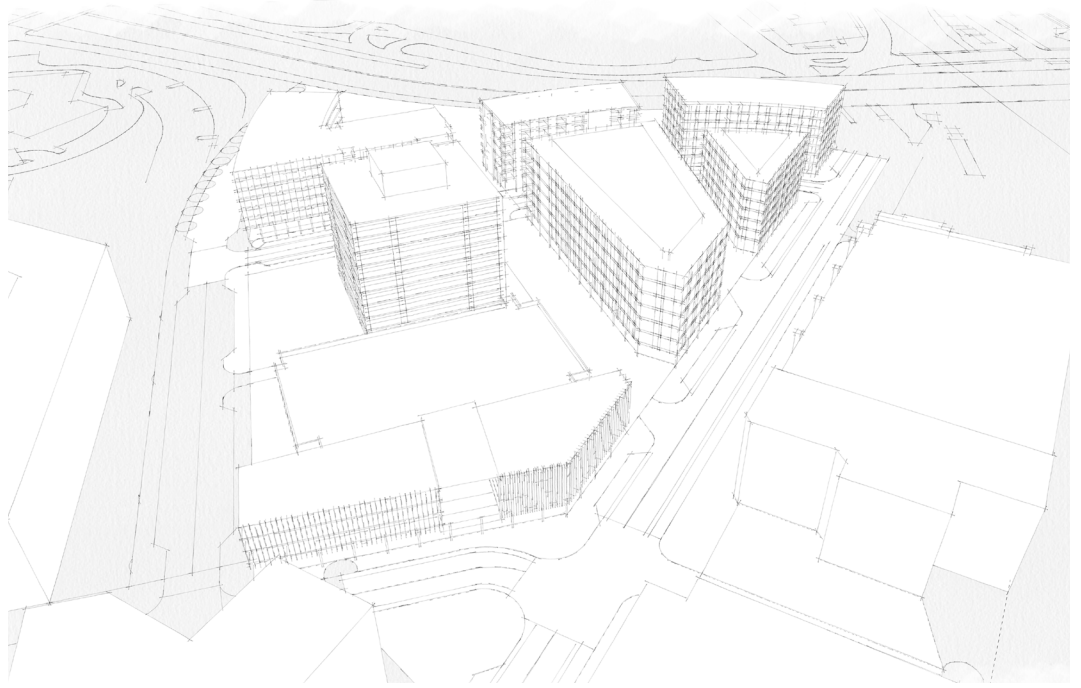
Parking is located in mixed-use structures, on-street parking, and surface lots placed behind buildings and along the rail corridor. Low impact development and green infrastructures are integrated throughout the site as landscape features to store and treat stormwater.

Main Street Gateway is integrated with the context by fronting the existing perimeter streets with new buildings and aligning new streets with existing intersections. The site is being redeveloped, generally following the Rasor vision, as Rock Row.



Rasor assisted the City of Auburn on specific site and urban design strategies to transform Minot Avenue into a high performance corridor in terms of buildings, sites, streetscapes, Complete Streets, mobility, and economic development. At the core of the project is the transformation of a historic mill into a modern engine for commerce with anticipated private sector investment in the tens of millions. Additional work includes new infill buildings, additional connectivity by expanding the area street grid and sidewalks, and green infrastructure for stormwater.

Rasor prepared a series of visualizations for the City to illustrate how Minot Avenue will evolve into an attractive and functional multi-modal gateway to the downtown.

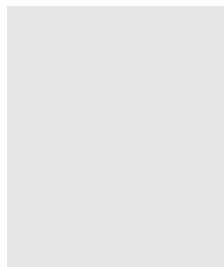
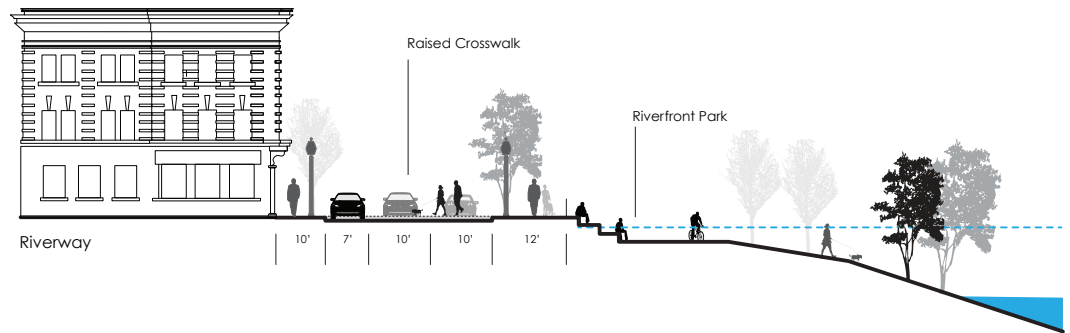
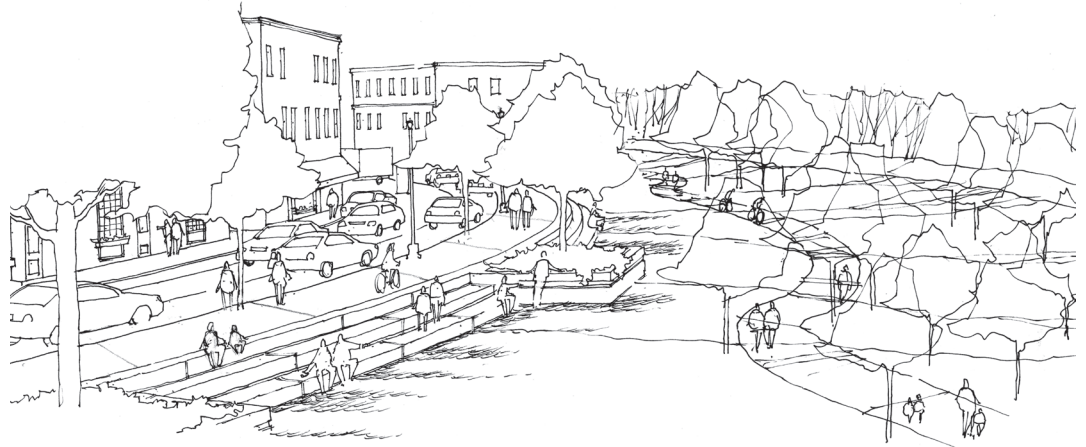


Rasor collaborated with Camoin Associates on a market study and urban design for a 12-acre transit-oriented development site across from Union Station in New Haven.

The project includes a series of new streets reconnecting historic networks, shared-space streets, 700,000 SF of mixed use development in seven proposed buildings, the retrofitting of Union Ave as a Complete Street “concourse,” and the integration of green and gray infrastructure to address sea-level rise. One third of the study area is regularly flooding due to storm events.

The City controls one parcel and two existing ROW’s. These spaces and infrastructures are strategically leveraged and swapped, creating a more walkable neighborhood responding to the dynamic context as well as establishing an interior logic and energy.

The site is one of the key TOD redevelopment locations in the northeast, with direct access from I-95 and Union Station. The design maximizes potential density to achieve TOD critical mass, while maintaining a human scale and affirming the street as the framework for urbanism and revitalization.



Rasor and TY LIN assisted Auburn with a complete urban design / mobility redevelopment plan for New Auburn Village Center and the mill district specifically looking at strategies for floodplain management and redevelopment. The total study area is approximately 45 acres and includes frontage on both the Little Androscoggin and Androscoggin Rivers. The focus area for redevelopment is approximately 15 acres. This area has been severed from the 1873 New Auburn street grid by a series of planning decisions favoring the automobile over the pedestrian. It was not the goal of the design to recreate the past, but instead craft an ideal future of economic recovery and demographic rebound through urban form, where streets are the framework for revitalization, not a barrier. The process began with the drafting and adoption of a Value and Needs Statement, which included a range of metrics for guiding the process. Metrics included establishing the right balance between the scale of development in relationship to the public realm, shared / on-street parking, creating new development blocks responsive to the market, intersection to area ratios, ROW to development area ratios, strategic removal of buildings, raising of parcels out of the floodplain, and net residential densities. The Study resulted in detail street drawings, changes to zoning standards, implementation strategies, and illustrative perspectives.

The Riverway and The Little Androscoggin Park are complete and new development sites above the 100-year floodplain have been created. This is one of the most ambitious urban waterfront and redesign resiliency projects undertaken in Maine in the last hundred years.



Park Drive Residences
Topsham, Maine

Rasor is providing master planning and landscape architecture services for the 80-unit Park Drive Residences. The plan locates the building towards the front of the site with an interconnected series of courtyard gardens providing an internal oasis for residents to enjoy or view from their apartments. The Park Drive Residences will help address a state wide shortage for the “missing middle” income level housing.

Rasor previously developed the zoning for this area allowing a mix of uses and increased residential densities. Rasor also completed the Topsham Fair Mall Road Transportation Master Plan envisioning a more walkable mixed-use area with integrated green infrastructure mitigating stormwater runoff.

RE-ENVISIONING THE HIGHWAY STRIP WORKSHOPS | ME

Evaluate surrounding undeveloped or partially developed lands for the possibility of trails or other pedestrian connections.

- This may serve as a way to reconnect with potential consumers within walking distance and as recreational amenity for entertainment or hospitality uses that may be appropriate for the center. Located areas not viable to preserve wetlands or for management of storm water as this may be prime natural habitat for a trail network.

Design the redevelopment strategy in a way that can be phased, such that earlier phases can help finance later phases.

Superimpose a crossroads configuration to and within the parking lot that:

- Explicitly aligns with adjacent roads and access points to adjacent properties (especially examine the road layout within a 200 to 250 ft radius for possibilities of connecting grid streets that can support the shopping center and that improve accessibility from them. For example, office workers who might patronize a restaurant in the center, etc.)
- Converts major roads existing along the internal roads that provide "through" and "corner" for additional productive building space, which may be smaller structures that can be built and market incrementally or a larger structure for a use that fills a market need, such as a hotel.

At the end of internal roads, "terminate the view" with an important structure.

- Provide a long view to the entry to an anchor store, a new building on an adjacent lot, or a structure that serves as part of the brand of the center.

Identify dead/slow parking area of parking lot and designate for redevelopment.

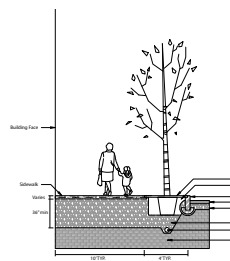
- Primarily is obtained by observation over different peak periods.
- Show all of the best represent a general view of the lot that has significant access points with the 20th highest hour of the year in terms of parking demand as reflecting the Urban Land Institute's Parking Requirements for Shopping Centers, typically drawing along the perimeter of a site in the second week of December.
- To gain the picture of areas of excess parking, consider parking spaces for employees to be provided in locations that may be inaccessible for customers (e.g., behind center building) will increase the number of employees (back lots) such that the employees are not using accessible areas of the parking lot whether for customer parking or re-employment.



GrowSmart Maine retained Rasor to assist with a series of workshops looking to re-envision the highway strip. The office is experienced with the environmental, mobility, fiscal, and political challenges of working with graying and thriving corridors. These legacy sites and mobility corridors are scattered throughout Maine requiring thoughtful revitalization to promote a mix of uses, mitigate environmental impacts, and reduce internal vehicle trips.

The workshops included the property owners, local officials and other professionals. Rasor assisted GrowSmart with three workshops: Route 3 in Belfast, Route 196 in Topsham, and Western Avenue in Augusta.

The results of the workshops is a best practices tool kit for communities dealing with the complexities of corridor management and redevelopment. The above graphic illustrates a pedestrian-friendly and infill redevelopment of Reny's Plaza in Belfast.



The Waterfront Area Redevelopment Plan completed with Woodard & Curran was based in a detailed analysis of existing conditions and the desired programming, leading to an ideal build-out. The Redevelopment Plan representing a seventy million dollar project – establishes a series of new streets and development of more efficient frontage parcels while maintaining the working waterfront, increased shore access, the integration of the Harbor Walk, and protecting and enhancing views of the harbor to the north and south. The underlying urban design principles include Form-Based architecture, a street / block system, green infrastructure, and well-defined street space that responsibly maximizes the economic, environmental, and civic capacities of the site. In light of the increasing demand to live in walkable / mixed-use communities, the Redevelopment Plan is a model for sustainable waterfront revitalization in Maine.

By adopting the Redevelopment Plan and planning for the recommended strategic infrastructures and land configurations, Rockland is demonstrating a long-term commitment to quality design and a vital public realm, which will ultimately leverage public / private partnerships and generate a positive feedback loop by increasing evaluations in the TIF District. The Redevelopment Plan includes the enabling codes, technical requirements for infrastructures, detailed drawings, recommendations for phasing, identification of tipping points, cost estimates, and numerous diagrams and illustrations.



Rasor collaborated with TY LIN and Woodard & Curran on the Route One South Infrastructure Master Plan. The Master Plan provides a detailed vision – with supporting technical documentation – of a vibrant public realm, including future infill development and critical vehicular and pedestrian improvements. By holistically addressing land use, urban design, stormwater, and Complete Streets, the Plan aligns policy with design, funding, and input from stakeholders. The \$11.7-million project was approved at the Town meeting and has been constructed – the most comprehensive Complete / Green Street project in Maine. The project team held numerous workshops to develop a range of redevelopment scenarios in order to best meet the needs of the community.

The project is one of the most ambitious arterial retrofits in Maine and includes new streetscapes, medians, inter-parcel connections, access management, transit stops, on-street parking, and green infrastructure treating over six acres of impervious surface.

The project has been built and awarded an Honor Award from the Maine Association of Planners for both the infrastructure and streetscape design as well as the revised codes allowing for more village-scale (re)development.



Rasor was retained by Standish to develop the first adopted Form-Based Code in Maine. The 2,000 acre Standish Corner District reflects the primary goals of Rasor’s 2008 Standish Corner Master Plan, which calls for a series of walkable and interconnected mixed-use neighborhoods supporting the historic village core at the intersection of Routes 25 and 35.

Three public forums were held in collaboration with GrowSmart Maine to allow the community to make informed decisions regarding the future of the Standish Corner District. Following the success of the forums, Rasor continued to work with the community and the Implementation Committee to develop the user-friendly Form-Based Code based on “street frontage types” to ensure vibrant civic spaces and quality architecture. The Form-Based Code promotes predictable and responsible growth patterns, quality streetscapes, interconnected / mixed-use neighborhoods and sustainable economic development through incentive development standards, transparency in governance and streamlined local review.

Rasor assisted Standish with streetscape designs and grant applications resulting in over one million dollars from MEDOT to engineer and construct the public realm improvements in the Village Center.

Greater Portland Council of Governments “ReCOgnition” award: Town of Standish for Sustainable and Community Planning



TY LIN and Rasor worked with the Town of Topsham on a Master Plan for the Topsham Fair Mall Road integrating mixed-use development, zoning, community vision, multi-modal transportation, urban design, stormwater mitigation, wayfinding, and a local / regional analysis of market competitiveness.



Rasor and Ransom worked with Vinalhaven on developing a variety of strategies for mitigating sea-level rise along Main Street from the ferry terminal to the downtown. The different sections of the study area were reviewed for potential changes to the built environment, including the civic space within streets, demonstrating responsive solutions integrating green infrastructure, hard and soft engineering, ADA improvements, and building adaptations. The goal was to ensure the vitality of Main Street through a series of contextual adaptations.

NRCM notes that of the 20 communities most impacted by sea-level rise, Vinalhaven ranks the highest with 8% or 1,235 acres impacted under a 1-meter rise scenario, specifically the lands in the study area. The image above demonstrates a fill strategy combined with green infrastructure curbside / shared space streetscape components in order to redirect rising waters and provide stormwater storage capacity in an urban setting where soft shoreline engineering is not practical.



Rasor and TY LIN worked with Town of Wiscasset, MaineDOT, and the Lincoln County Regional Planning Commission on a Context Sensitive Solution / Complete Streets based integrated land use / transportation Master Plan for Route 1 running from the Woolich town line to the historic village. The Master Plan promotes growth by planning for it in a coordinated and responsible manner.

This four-mile segment of Bath Road is well know for traffic congestion. We helped the community alleviate congestion and plan for sustained growth through smart land use policies, the identification of location efficient street networks, and coordinated traffic infrastructure improvements. Corridor planning can be particularly difficult because of legacy access management and strip development. The Master Plan thoroughly addresses these issues, providing equitable solutions that can be phased in a strategic manner.

In addition to promoting growth without further impacting the capacity or safety of Bath Road, the Master Plan includes new site design and streetscape standards to enhance visual quality, strategies for preserving open space and regreening the corridor, new Zoning Districts, the redistribution of land uses, cost estimates, and funding mechanisms for paying for the improvements.

Rasor prepared a number of photosimulations illustrating the vision for the recommended thematic zoning areas along Bath Road.

Downtown Flood Protection & Parking Updates

Damariscotta, Maine



Waterfront Park at Downtown Parking Lot.

Downtown Damariscotta experienced flooding during king tides and larger storm events. The Town undertook a unique project to provide flood protection to a significant portion of downtown and provide a long-term benefit for the town and region. Wright-Pierce, together with SLR International, were selected to assist the Town in this endeavor. A central question was the establishment of a long-term flood elevation.

Our team provided the expertise to assist the Town in determining the appropriate elevation to design flood protection for the Downtown. We also understood the Town's opportunity to enhance the park and parking experience to support the local economy and we have unparalleled history with this site to help make the most of this opportunity.

Based on modeling of the parking lot watershed, tidal events at the outfall and probability analysis of the combination of tidal and rainfall events a storm drain system was designed to meet the 1% return interval which included new storm drain infrastructure, stormwater storage and one-way valves on the outfalls. This design was selected to prevent flooding of critical catch basins.

Client Contact

Town of Damariscotta

35 School Street
Damariscotta, ME 04543

Andrew Dorr

Town Manager
207.563.5168

adorr@damariscottame.com

Highlights

- Flood protection
- Long-term flood elevation
- Enhance parking to support local economy
- Storm drain system designed to prevent critical catch basin flooding

Dates

Preliminary Design: 2021

Final Design: 2022

Construction: 2023

Key Personnel

Ryan Wingard, Jaime Wallace,
Jeff Preble

A storm drain system was designed to meet the 1% return interval.

Memorial Circle LID Stormwater

Kittery, Maine



The Town retained Wright-Pierce to design water quality improvements to address runoff from Memorial Circle. The project involved the installation of an under-drained soil filter, sediment forebay, and vegetated wet swale, as well as replacement of an existing asphalt swale with a grassed swale and grading for the future installation of a pedestrian walkway. The LID measures were intended to improve the quality of stormwater discharging to the Spruce Creek estuary.

The grassed under-drained soil filter, sediment forebay and the proposed vegetated wet swale followed the original grades and retained the native hydric soils present on the site. The vegetated wet swale was planted with native species appropriate to the hydrology of the site, including a variety of grasses, sedges, iris, and rushes, such as might be found in soils that are consistently moist, and that are adapted to periodic inundation.

The plan included a diversity of species and allowed for flexibility in final plant placement prior to planting

Client Contact

Town of Kittery

200 Rogers Road
Kittery, ME 03904

David Rich

Commissioner of Public Works
207.439.0333

drich@kitteryme.org

Highlights

- Coordination of wetland delineation and report
- Design documents
- Regulatory coordination
- Grassed under-drained soil filter
- Sediment forebay
- Vegetated wet-swale

Dates

Preliminary Design: 2012

Final Design: 2013

Construction: 2017

Key Personnel

Ryan Wingard

Flood Mitigation: West Grand Avenue

Old Orchard Beach, Maine



Wright-Pierce provided flood mitigation services to the Town of Old Orchard Beach in the West Grand Avenue area. The West Grand Avenue stormwater conveyance network consists of saltwater marshes, freshwater marshes, natural channels, road culverts, subsurface piping, and a tide gate. During the study phase of the project, Wright-Pierce determined that flooding was attributable to both watershed runoff and tidal influences. The most severe flooding occurred when the peak runoff rates occurred during a high tide. An analysis of the existing marsh storage capacity revealed that during high tide, a significant portion of the marsh volume was filled with saltwater. Runoff from large storms during high tide could not be stored within the already filled marsh, resulting in localized flooding of private residences and emergency evacuation route roadways.

The Town engaged with environmental interest groups which most notably included the Sea Level Adaptation Working Group (SLAWG). Wright-Pierce coordinated with the SLAWG throughout the design process and considered sea level rise when developing adaptation strategies.

Wright-Pierce recommended and designed several local improvement projects in the West Grand Avenue area, including modifications to tide gate controls and operations, local stormwater infrastructure improvement, and a flood control berm.

Client Contact

Town of Old Orchard Beach

1 Portland Avenue
Old Orchard Beach, ME 04064

Diana Asanza

Town Manager
207.937.5626

dasanza@oobmaine.com

Highlights

- Localized flooding along West Grand Avenue, which is an emergency evacuation route
- Environmentally sensitive marshland area
- Coordination among many stakeholders

Dates

Preliminary Design: 2012 – 2013

Final Design: 2014

Construction: 2014 – 2016

Key Personnel

Ryan Wingard

Wright-Pierce assisted the Town with the study and design of flood adaptation measures along West Grand Avenue, an emergency evacuation route for the town.

Oquossoc Village Corridor Study

Rangeley, Maine



Sample rendering of plan with downtown photo inset.

Wright-Pierce worked with the Town of Rangeley to develop a Downtown Revitalization Action Plan to serve the community as an instrument for identifying and prioritizing revitalization goals in the Rangeley and Oquossoc Village areas. The Town’s goals for the plan included identifying needed capital investment to support physical improvements (utilities, parking lots, streetscape elements, etc.) and promotion of the vision for the downtown. A Tax Increment Finance (TIF) District was established as a result of the Action Plan to help fund future investments in the village areas.

As a result of the plan, the Oquossoc Village area has embarked on a corridor study to address community goals around improved road conditions for passenger and recreational vehicular flow and pedestrian and bicycle safety. Wright-Pierce, as a subconsultant to TY Lin, is assisting with project elements including assessment of stormwater management, pedestrian movements, ADA accessibility, utility coordination, bicycle lanes, and coordination with Town park improvements.

Client Contact

Town of Rangeley

15 School Street
Rangeley, ME 04970

Joe Roach

Town Manager
207.864.3326

townmanager@rangeleyme.org

Highlights

- Alternatives evaluation
- Feasibility analysis
- Transportation safety
- Sidewalks
- Curb extensions
- Crosswalks
- Refuge islands
- Wayfinding
- Landscaping
- Stormwater management
- Utility coordination
- Street lighting

Dates

2023

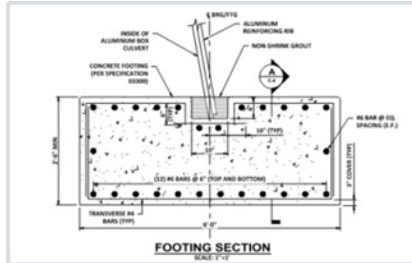
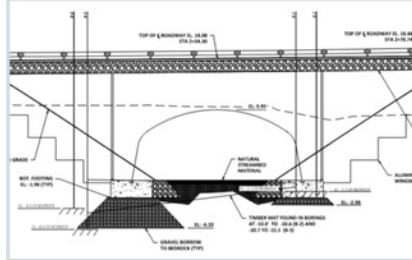
Key Personnel

Jeff Preble, Jason Gallant, Kalle Maggio, Ryan Wingard, Jaime Wallace

In addition to this project, Wright-Pierce has designed several projects for Rangeley including full paving and grading, new sidewalks, drainage system, and new water mains and service in residential neighborhoods in the heart of the downtown area.

Tidal Culvert Replacement at Old Ferry Road

Wiscasset, Maine



The Town has retained Wright-Pierce to design a replacement for the Old Ferry Road tidal culvert and tidal stream bridge crossing to protect the nearby environment, maintain critical utility infrastructure, and allow safe travel for vehicles. Several properties, including Central Maine Power and MoInlycke Health, are solely accessible via Old Ferry Road. Additionally, the road leads to a river landing used for recreational activities.

Wright-Pierce conducted field and topographic surveys at the project site to assess the existing conditions and created a base map that was used during the study phase of the project.

The study phase included a hydrologic analysis using HydroCAD; hydraulic modeling using HEC-RAS; analysis of the effects of multiple sea level rise scenarios on the watershed using the CoastWise Approach; and culvert sizing analysis. After the study phase was completed, preliminary design plans were developed for proposed roadway and bridge improvements for project permitting.

Wright-Pierce will coordinate with the Town on submittal of state and local permits. The final design will make considerations for sea level rise over the 75-year design life of the replacement bridge and will be in accordance with CoastWise and MaineDOT design standards.

Client Contact

Town of Wiscasset

42 Hodge Street
Wiscasset, ME 04578

Dennis Simmons

Town Manager
207.882.8200

manager@wiscasset.org

Highlights

- Tidal culvert replacement
- Field and topographic surveys
- Base map creation
- Hydrologic analysis and sea modeling
- Culvert sizing analysis
- 75-year design life considerations

Dates

Preliminary Design: 2020

Final Design: 2021 – 2022

Key Personnel

Jason Gallant, Ryan Wingard,
Jaime Wallace

Wright-Pierce's design efforts will help protect the local environment and allow safe passage for vehicles.

D. References

We pride ourselves on client relationships and encourage you to contact these references for whom we have provided relevant services to gain their perspective on what it is like to work with us.

REFERENCE 1:	Route 111 Transportation Alternatives/South Street Connections Study	
	Greg Mitchell <i>City of Biddeford</i>	p. (207) 282-7119 e. gregory.mitchell@biddefordmaine.org
REFERENCE 2:	Route 111 Transportation Alternatives/South Street Connections Study	
	Stephanie Carver <i>Southern Maine Planning & Development Commission</i>	p. (207) 571-7065 e. scarver@smpdc.org
REFERENCE 3:	Portland On-Call Traffic Engineering Services	
	Jeremiah Bartlett <i>City of Portland</i>	p. (207) 874-8801 e. jbartlett@portlandmaine.gov
REFERENCE 4:	Bath South End Transportation Study	
	Marc Myers <i>City of Bath</i>	p. (207) 443-8330 e. mmeyers@cityofbath.com

E. Schedule

TYLin takes the commitment of staff to proposed projects seriously. Our goal is to always maintain our reputation for providing responsive, technically excellent service to our clients.

We have reviewed the workload of each of the proposed staff members relative to their proposed role on the study and determined they have the correct level of availability to ensure we meet the needs of the study and provide the Town with responsive and effective service.

PROJECT MILESTONE	DATES
Notice to Proceed	April 1, 2023
Project Kick-Off/Safety Audit Project Meeting	April 21, 2023
Review Available Data	April 30, 2023
Complete Assessment of Current Conditions Technical Memorandum	May 26, 2023
Project Coordination Team Meeting to review Existing Conditions and prepare for the Public Meeting	June 15, 2023
Public Meeting #1	Week of June 26, 2023
Project Team Meeting to discuss volume forecasts and initial alternatives analysis	July 20, 2023
Transmit Initial working Draft of Alternatives Analysis	September 8, 2023
Transmit Draft Alternative Analysis Technical Memorandum	October 12, 2023
Project Team Meeting to review Draft Alternatives Analysis Technical Memorandum	October 26, 2023
Public Meeting #2	Week of November 13, 2023
Transmit Draft Final Report	December 2023
Project Team Meeting to Review Draft Report	January 2024
Public Meeting #3	February 2024
Project Team Meeting to review revised Draft	March 2024
Transmit Final Report	April 2024

F. Contact Information

We look forward to the opportunity to work with the Town of Kittery on the Route 1 Corridor Feasibility Study. Should you have any questions, or require any additional information, please contact our proposed Project Manager, Tom Errico, at the contact information listed below.

NAME:	Thomas Errico, PE Northeast Traffic Engineering Director T.Y. Lin International
ADDRESS:	12 Northbrook Drive Building A, Suite One Falmouth, ME 04105
PHONE NUMBER:	+1 207.347.4354
EMAIL ADDRESS:	Thomas.Errico@TYLin.com

G. Signature Page

By submitting to this RFP, I certify to the best of my knowledge and belief that the organization, its principals, and any subconsultants named in this proposal:

- a. Are not debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from bidding or working on contracts issued by any governmental agency.
- b. Have not within three (3) years of submitting the proposal for this contract been convicted of or had a civil judgment rendered against them for:
 - i. fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government transaction or contract.
 - ii. violating federal or state antitrust statutes or committing embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - iii. are not currently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
 - iv. have not within a three (3) year period preceding this proposal had one or more federal, state or local government transactions terminated for cause or default.

I certify that all of the information in this technical/price proposal is true and accurate.

Signed:



Kevin S. Ducharme, PE | Vice President
T.Y. Lin International



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/1/2023

3/8/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000 kcasu@lockton.com	CONTACT NAME:	
	PHONE (A/C. No. Ext):	FAX (A/C. No):
	E-MAIL ADDRESS:	
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : Zurich American Insurance Company		16535
INSURER B : Travelers Property Casualty Company of America		25674
INSURER C : Aspen Specialty Insurance Company		10717
INSURER D :		
INSURER E :		
INSURER F :		

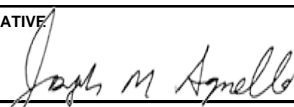
COVERAGES MAIN CERTIFICATE NUMBER: 19388764 REVISION NUMBER: XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> SEVERABILITY <input checked="" type="checkbox"/> CLAUSE GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER:	N	N	GLO 3021088.	11/1/2022	11/1/2023	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 25,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	N	N	BAP 3021090.	11/1/2022	11/1/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$ XXXXXXXX
B	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$	N	N	CUP-9T661090.	11/1/2022	11/1/2023	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000 \$ XXXXXXXX
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	WC 3021089	11/1/2022	11/1/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	<input checked="" type="checkbox"/> PROFESSIONAL LIABILITY	N	N	LR00JUH22.	11/1/2022	11/1/2023	\$1,000,000 PER CLAIM; \$1,000,000 ANNUAL AGGREGATE

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 RE: ROUTE 1 CORRIDOR FEASIBILITY STUDY, 3010.0100770.P00, FEASIBILITY STUDY IN KITTERY, ME.

CERTIFICATE HOLDER**CANCELLATION**

19388764 TOWN OF KITTERY 200 ROGERS ROAD KITTERY ME 03904	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

© 1988-2015 ACORD CORPORATION. All rights reserved.

TYLin

THOMAS ERRICO, PE

PROJECT MANAGER

Thomas.Errico@TYLin.com

T - +1 207.347.4354

