



**Request for Qualifications (RFQ) -
Two-Tier (State-Local) Qualifications-Based Selection for
At-The-Ready (ATR) Consultant Engineering Services for
Municipalities 2026
Municipal Project Management**

Submitted to: Vermont Agency of Transportation - Highway Division

March 2, 2026

FUSS & O'NEILL

A. Cover Letter



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March 2, 2026
Ms. Nydia Lugo
Vermont Agency of Transportation
Highway Division
Project Development Bureau - Municipal Assistance
219 North Main Street
Barre, VT 05641

RE: Request for Qualifications (RFQ) Two-Tier (State-Local) Qualifications-Based Selection for At-the-Ready (ATR)
Consultant Engineering Services for Municipalities 2026
Category: Municipal Project Management

Dear Ms. Lugo and Selection Committee:

Vermont is unique in its duality - it is both large and small. Geographically the third largest New England state, it is comprised of many small towns and municipalities spread throughout the state. This duality can exacerbate challenges caused by outside influences (time, climate, social or political changes, etc.), as communities can be harder to reach in times of crises and funding can be even more restricted. The establishment of the Municipal Project Management program is a systematic and thoughtful approach to solving Vermont municipal challenges.

Fuss & O'Neill is proud to support the Municipal Project Management program as it is similar to our firm's ethos. We too are committed to solving municipal challenges, in Vermont and throughout the Northeast. Fuss & O'Neill is deeply rooted in New England. For more than a century we have been partnering with towns, cities, regional planning commissions, and state agencies to improve our communities. Our offices are strategically placed to quickly respond to emergency needs, to meet with project stakeholders on sites quickly, and so that we become part of the communities in which we work.

It is with the goal of better serving our local clients that we have recently implemented new firm practices and restructured project teams. We have systems in place to ensure that project managers can focus on projects and people managers can focus on training, mentoring, and professional development. We assign local teams, whenever possible, so that challenges are solved by those who really understand and relate. This approach helps support the "do more with less" mentality. These local teams know how to identify and creatively apply funding opportunities, have existing relationships with community leaders and agency employees, and can provide immediate and long-lasting design solutions because they understand the conditions, challenges, and community needs.

We have instituted these changes firm-wide and integrated them with our dedication to multidisciplinary problem solving. Infrastructure projects rarely require a single specialized profession. Fuss & O'Neill offers comprehensive consulting support, and our professionals routinely collaborate on projects throughout the Northeast. Our permitting specialists, construction professionals, landscape architects, scientists, land surveyors, and climate resilience experts regularly work alongside our traffic, transportation, structural, and geotechnical engineers. This complete in-house support reduces change orders and streamlines project delivery. We look at a project as both the individual pieces and the sum of its parts, and we have the experts to systematically and efficiently design solutions to every phase, yielding projects that implement positive change.

JoAnn Fryer, PE is our proposed Principal-in-Charge. JoAnn's internal role recently changed to support our improved client experience. JoAnn's 30 years of transportation infrastructure design and implementation experience form the foundation of her position as Transportation Market Leader. JoAnn's primary role is to understand the needs of transportation clients and ensure that those needs are met - firm-wide. She does this by aligning funding, policy changes, and evolving user needs with internal professional training, mentoring opportunities, and firm projects. This makes her the ideal person to be in ultimate responsible charge of this contract. The selection of JoAnn as the Principal-in-Charge is a commitment by Fuss & O'Neill to prioritize this contract. We are also proud to note that JoAnn was recently named the 2026 New Hampshire Engineer of the Year in recognition of her contributions to the engineering profession, dedication to public service and philanthropy, and outstanding professional accomplishments.

Leading the project management of this contract will be Brian Bertsch, PE and Daniel Monette, PE. Brian and Dan are the office managers of our Williston and White River Junction offices, respectively. They have been selected as contract Project Managers because of their experience with Vermont municipal clients. Both lead multidisciplinary offices, so they are well-versed in all aspects of any project that could come from this contract. They have established relationships with Town Managers, Selectmen, DPWs, and other municipal leadership. Their jobs are to serve Vermont communities, which aligns with the goal of this contract. Brian's and Dan's individual qualifications are described herein, but we note that they both understand the gravity of this contract. They will ensure compliance with contract requirements while fulfilling the needs of the municipality.

Our qualifications in support of the pursuit of this contract are contained on the following pages. We acknowledge receipt of Change #1. Our previous experience as a contract holder has influenced, and continues to inform, our approach. We take every opportunity to grow, learn, and improve. The signatures of JoAnn Fryer, Brian Bertsch, and Daniel Monette, PE below are representative authorization. Please contact any of the undersigned should you have any questions or require any additional information.

Sincerely,



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Principal-in-Charge
joann.fryer@fando.com
603.222.3469



Brian Bertsch, PE
Project Manager
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802.304.7532



Daniel Monette, PE
Project Manager
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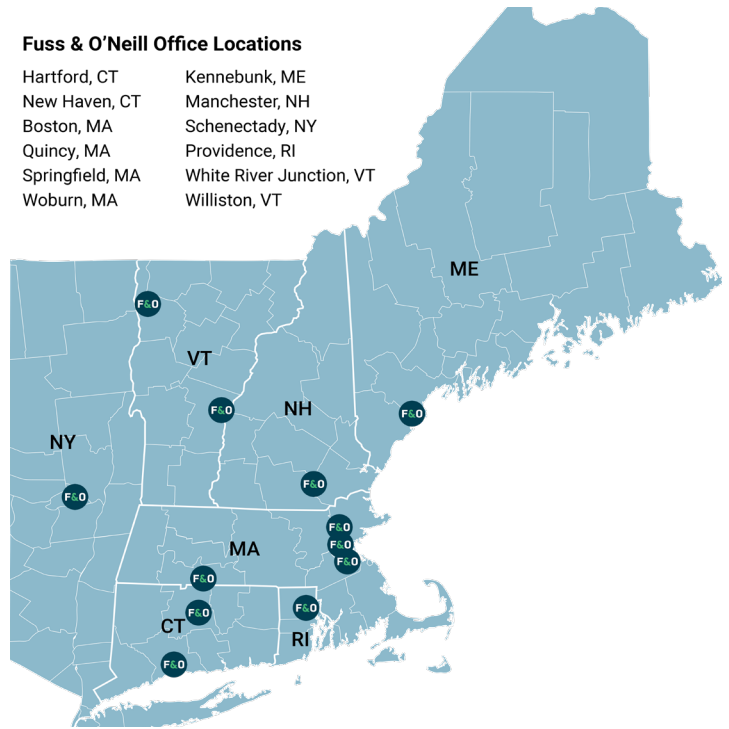
B. General Firm Information

Looking through a multidisciplinary lens, Fuss & O'Neill creates comprehensive and forward-thinking solutions that meet our clients' needs today, tomorrow, and for years to come. We thrive at the intersection of industry and community issues such as economic development, livable communities, complete streets, Environmental Justice, and climate change, while offering traditional public and private services.

Fuss & O'Neill offers a comprehensive suite of civil and environmental services, which allows us to best serve all of our municipal client needs. We see the project both as a whole and as a series of steps. We can be involved in all phases of the project, and we recognizes challenges and resolutions from all perspectives – solving small matters before they become schedule-impacting problems.

Fuss & O'Neill Office Locations

Hartford, CT	Kennebunk, ME
New Haven, CT	Manchester, NH
Boston, MA	Schenectady, NY
Quincy, MA	Providence, RI
Springfield, MA	White River Junction, VT
Woburn, MA	Williston, VT



With 12 offices throughout New England, including 2 in Vermont, Fuss & O'Neill is strategically located to provide our Northeast clients with rapid response and a comprehensive suite of engineering services.

Comprehensive Services

- Civil/Site Engineering
- Climate Resilience and Sustainability
- Construction
- Environmental Engineering
- Facility Engineering
- Landscape Architecture
- Structural Engineering
- Survey and ROW
- Transportation and Traffic Engineering
- Water and Natural Resources
- Water and Wastewater Engineering

Municipalities comprise our largest client base. For more than a century, Fuss & O'Neill has been helping New England communities balance growth and preservation.

As a civil engineering firm, we recognize that smart changes keep people safe and healthy. As a New England-based civil engineering firm, we also recognize that we have a responsibility to protect and preserve our unique heritage, landscape, and culture.

YEARS

Experience is our foundation for innovation.

100+

PROFESSIONALS

Diverse perspectives with a common goal of progress.

430+

OFFICES

Strategically located to deliver results.

12

Municipal Focus - Through a Transportation Lens

The intricate web of transportation systems plays a pivotal role in fostering economic development, offering health benefits through access to diverse routes, minimizing commuter expenses and time, and presenting a range of secure and flexible connectivity options.

A well-designed transportation system should embody accessibility, affordability, and a keen awareness of the unique context and needs of the communities it serves. It demands a forward-thinking approach, considering the present requirements and the potential evolution of user needs, environmental conditions, and future alternative energy and fuels.

Recognizing that public needs are dynamic and influenced by societal and technological advancements, we understand that “modern” can never be a static term. Our team of professionals actively leads industry organizations, conducts ongoing research on cutting-edge equipment and materials, and collaborates with policymakers to introduce intelligent changes. Through critical thinking and adaptability, we ensure that our solutions keep pace with the relentless speed of life.

We bring this approach to our municipal projects because we understand that transportation projects are universally relevant endeavors, touching the lives of everyone at some point, be it as a pedestrian, driver, or patron of public transportation.

Fuss & O’Neill works with every state department of transportation in New England.

These contracts, in addition to working directly with municipalities, provides us with a profound understanding of the distinct policies, procedures, and intricacies associated with each jurisdiction.

This experience hones our focus on the criticality of safety, public demand, and streamlined project delivery for transportation initiatives.

We understand projects from the viewpoint of the municipality, from the state agency, and from the federal level. We navigate the sometimes competing interests, understand the various permitting statutes, and follow funding regulations.

This range of experience helps us to best serve the ultimate client - the travelling public.

FIRM INFORMATION

Name: Fuss & O’Neill, Inc.
Business Address: 300 Cornerstone Drive, Suite 330
Williston, VT 05495
Contact: JoAnn Fryer, PE
603.222.3469
joann.fryer@fando.com

FIRM HISTORY

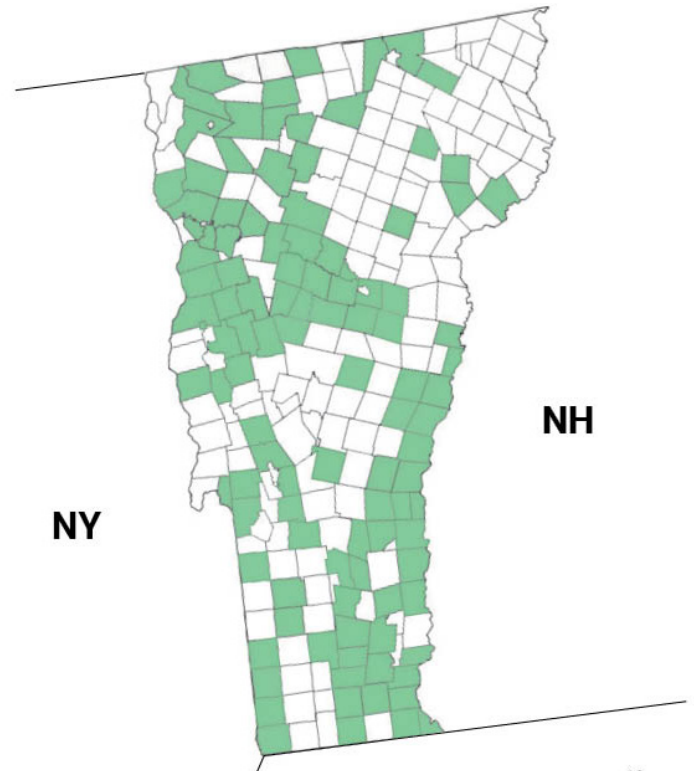
Year Established: 1924
Previous: Griswold Services, Inc. (1925 - 1967)
Griswold Engineering, Inc. (1967 - 1971)
Griswold & Fuss, Inc. (1971 - 1977)
Fuss & O’Neill, Inc. (1977 - present)

Our Commitment to Vermont

Fuss & O'Neill has been working in Vermont and providing engineering services to VTrans for nearly 40 years - and we continue to grow in staff and services.

We strategically placed our two Vermont offices to best serve cities and towns throughout the state. We can be on sites quickly, have relationships with local regulators, and understand the unique landscape and needs of our communities.

Our experience in Vermont, shown to the right, which extends beyond our traffic and transportation expertise, gives us a profound and comprehensive understanding regulations, project approach, and expedited project execution strategies. We know how to work with and for regulatory agencies and municipalities.



Green shading indicates towns/cities in which we have worked.

Vermont On-call Contracts

- VTrans At-the-Ready Consultant Engineering Services for Municipalities
- VTrans Facilities Engineering Services
- VTrans General Environmental Services
- VTrans NEVI Procurement Program
- VTrans Roadway and Traffic Engineering
- VTrans On-call Surveying & ROW Plans and Titles Services
- Chittenden County Regional Planning Commission On-Call
- City of Burlington
- City of South Burlington DPW
- City of St. Albans Stormwater Utility
- Department of Environmental Conservation Regional Conservation Partnership Program
- Northwest Regional Planning Commission Brownfields On-call
- State of Vermont Buildings and General Services Environmental and Remediation
- State of Vermont Department of Environmental Conservation PCB Sampling in Schools
- Town of Middlebury
- Town of Windsor



Our White River Junction Office



Williston Office Ski Event

Experience, Capabilities, and Plan for Providing Services

Through our experience on this contract and through our projects with municipalities throughout the state, our team is well-versed in VTrans design standards, engineering documents, and specifications.

We are supporters of this contract, raising awareness of the At-the-Ready process among our municipal and regional planning clients.

No matter the size and scope of the assignment, Fuss & O'Neill will provide qualified personnel, that have been through the VTrans MAS design process, to deliver the quality, service and technical expertise that your project requires. Our team includes specialists for: roadway, highway, intersection, signal, bicycle and pedestrian facility, bridges, culverts, traffic, rights-of-way, geotechnical, environmental, hazardous materials management, remediation, landscape architecture, and lighting – all components that could contribute to municipal projects.

Fuss & O'Neill has a depth of resources and 40+ years of experience working for VTrans. Many of the tasks outlined as responsibilities for the MPM are tasks our team often makes part of our process as the design consultant:

- **work with utility companies and local officials on coordination of permits, utilities, and rights-of-way**
- **help municipalities as a third-party plan reviewer**
- **assist with preparation of RFP/RFQ documents to help the municipal procurement process**
- **coordinate with property owners, informing them of project impacts, the right-of-way process, and their rights as related to the “Uniform Act”**

Approach to the MPM Role

Fuss & O'Neill has completed numerous MAS projects that have successfully followed the “Guidebook for Municipally Managed Projects”. This book provides valuable information on the process and checklists. Utilizing the Guidebook and our years of experience with these projects helps solidify our understanding of the process and the clients’ desired outcome. The MAS has templates for all of the municipalities’ consulting needs to assist in preparing RFQ and RFP proposal documents, of which we are very familiar. For municipalities that do not have this experience, the selection process can be challenging. However, a well-written RFQ/RFP that outlines the municipalities’ needs is critical to selecting the appropriate design consultant.

To be an effective MPM, Fuss & O'Neill will prioritize expedited reviews to help resolve issues quickly. We understand that any project delay has the potential to increase the project cost. Closely monitoring the design consultants’ activities helps to maintain the project schedule.

We will ensure regular communication with the municipality and VTrans MAS Project Supervisor to review progress and discuss design elements to facilitate a project that meets the community’s expectations. All communication and public meetings will be documented as either meeting minutes or a memorandum to the file, and will then be emailed to the team so that all parties have the same information.

MPM Understanding

Goal

Ensure compliance with regulations, manage contractors and oversee project delivery for projects funded in part by the Federal Highway Administration and the Vermont Agency of Transportation.

Role

- Ensure that all aspects of the project follow the “VTrans Project Development Process” and adheres to the Municipal Assistance Section (MAS) Guidebook for Municipally Managed Projects.
- Coordinate all project activities and monitor all aspects of project development on behalf of the municipality.
- Ensure adherence to federal and state rules and regulations relative to developing and constructing a project.
- Review and monitor project schedule to coordinate all activities necessary for completion of the project (including providing regular progress reports to VTrans - biweekly or monthly depending on scope of project).
- Solicit and coordinate RFPs/RFQs and scopes of services for any and all consulting needs subject to VTrans approval. Act as member of selection team and maintain responsibility for documenting these processes.
- Review and ensure that all provisions of all contracts are met or satisfied and submitted on time and within cost limits (including ongoing tracking of expenditures compared to contract amounts and the overall project budget).
- Review all project invoices to ensure the billing matches work completed and provide invoices and supporting documentation to VTrans (along with a statement attesting to the accuracy, completeness, and reasonableness).
- Arrange for, participate in, and provide follow-up documentation of all project-related discussions, meetings, or hearings.
- Review project plans and documents for conformance with MAS standards prior to submitting to VTrans.
- Assist the municipality in all right-of-way, utility, and/or railroad issues and process.
- Review the project for compliance with all federal, state and local laws, ordinances, regulations, and permit requirements, including environmental permitting.
- Assist the municipality in preparing a bid package for construction, in conformance with federal and state regulations. Document and answer all inquiries during project advertisement. Once bids are received and opened, assist municipality in determining whether apparent low bidder is responsible.
- Coordinate and participate in a Preconstruction Conference in accordance with the MAS guidebook.
- Provide project administration of project during construction, including oversight of construction inspector, conducting periodic field reviews of construction activities, work items and daily record keeping.
- Provide approval on behalf of the municipality for necessary change orders and forward to VTrans for concurrence.
- Provide a certification to VTrans (as the Project Acceptance Memo) that the project was constructed as designed with a summary of all projects costs summarized by phase. (A template can be provided.)
- Coordinate and participate in a substantial completion walkthrough in accordance with the MAS guidebook.
- Keep a master project file to become the possession of the Town once the project is completed. Should any additional information be necessary to meet any reviews of the project, such as an audit, the MPM will be responsible for providing or securing this.

Coordination

Fuss & O'Neill routinely conducts property owner meetings; prepares right-of-way plans, titles, and easement language needed to acquire the rights to construct a project; and, when necessary, provides testimony at the Necessity Hearing. We coordinate with utility companies to review potential infrastructure impacts to formulate a solution that is acceptable to all stakeholders.

Schedule:

Task	% of Project	% Complete of Project	% Complete	Target Dates of Completion
Task 1 – Project Initiation	13.5	39.1	5.3	February 2025
Task 2 – Project Definition	3.5			
Task 3 – Conceptual Plans	7.2			
Task 4 – NEPA Documentation	3.2			
Task 5 – Preliminary Plans	6.8			
Task 6 – Right-of-Way	2.9			
Task 7 – Final Plans	4.2			
Task 8 – Contract Plans and Specifications	3.7			
Task 9 – Construction Procurement	55.0			
Total	100.0			

% of Project Completed to Date: 5.3%
% of Project Completion Anticipated Next Month: 9.5%
% Billed to Date: 5.3%

Example Schedule for MPM Project in Castleton

The Fuss & O'Neill MPM is responsible for overseeing that all contract and permit provisions are met, and that contract plans are submitted on time and on budget. Our Project Managers complete monthly project status updates and invoices for all of our MAS projects, and are knowledgeable on the invoicing requirements, allowable expenses, backup information required, and the required statement attesting that the invoice is complete and accurate.

Construction

Fuss & O'Neill has extensive experience preparing bid packages for construction, reviewing the special provisions to ensure that all right-of-way agreements, permit requirements, and local/state/federal laws are met. The MAS has an excellent template that we utilize to start putting together the bid package.

Our firm is experienced with advertising for construction, issuing addenda to answer contractors' questions, and preparing the bid analysis to determine the apparent low bidder. We routinely attend Preconstruction Meetings, which is critical to make sure the contractor, resident engineer, municipality personnel, and design consultant understand the project requirements. This is also a forum for the contractor to ask any questions they may have about the contract documents.

During construction, Fuss & O'Neill will provide oversight of the contractor and construction inspector, attend construction meetings and field reviews, and review daily work reports. Should a Change Order become necessary, we will review and recommend for the municipality's approval and email the VTrans Project Supervisor for their approval.

When construction is substantially complete, Fuss & O'Neill will participate in a walkthrough and prepare a memo with a punch list of items that need to be resolved prior to final acceptance of the project.



Example Construction for Brandon Bridge 114 MAS Project

Recordkeeping

Fuss & O'Neill's recordkeeping will include all documentation throughout the life of the project and will be provided to the municipality upon final acceptance of the project. The files will include information necessary should the project be audited.



JoAnn Fryer and Dave Munro Reviewing Project Information

Organization Description

Fuss & O'Neill

Looking through a multidisciplinary lens, Fuss & O'Neill's 430+ employees create comprehensive and forward-thinking solutions that meet our clients' needs today, tomorrow, and for years to come. We provide multidisciplinary civil engineering services throughout the Northeast.

We are a right-sized firm: we have the depth of staff and experience of a larger firm (able to complete any project from scoping to initial design through construction) and we are nimble, responsive, and provide the personal service of a smaller firm.

Fuss & O'Neill, Inc. is a wholly owned subsidiary of Trilon Services C-Corp Holdings, Inc. We maintain our independence regarding our internal structure and we are organized into four business units:

1. Community (civil engineering, survey, structural engineering, landscape architecture, and planning)
2. Environmental (compliance, subsurface, hazardous materials, MEP)
3. Transportation (highway, traffic, and bridge)
4. Water (water, wastewater, water resources, natural resources, and environmental planning)

Management Personnel:

Kevin Johnson (CEO)

Jenna Krzesicki (CFO)

Maggie Snape (Chief People Officer)

Shawn Martin (COO)

Diane Mas (Chief Resilience & Sustainability Officer)

Craig Lapinski (CRO)

*Responsible for delivery of services under this contract.

Patrick Herold (VP of Business Operations)

Dan DeLany (Community Business Unit Leader)

Caleb Scheetz (Environmental Business Unit Leader)

Kristen Solloway* (Transportation Business Unit Leader)

Doug Brisee (Water Business Unit Leader)

Application of Organizational Resources and Lines of Communication

Fuss & O'Neill commits all proposed resources shown on our organizational chart herein to ensure that all projects are developed in accordance with applicable design standards and federal and state regulations.

We respect the MAS process and, having served as the designer as part of this project before, we understand the lines of communication. Fuss & O'Neill will follow all MAS procedures, communicating and sharing information in accordance with VTrans' established guidelines.



Quality Control and Quality Assurance

Fuss & O'Neill understands that a small oversight on plans can lead to overages and delays in construction. As we believe that quality control and attention to detail are of highest priority, we routinely revise and expand our internal quality control procedures. These QA/QC procedures are developed with staff input to ensure that staff at every level are focused on quality.

It is Fuss & O'Neill's policy to develop and monitor a formal QA/QC program for each project/assignment. In addition to common QA/QC steps such as reviews by project leaders, key elements of our QA/QC programs include third-party reviews and the use of checklists.

We use in-house technical experts to review designs and reports while they are in draft form and prior to being forwarded to our clients. This allows a fresh set of experienced eyes to review a project closely and see potential issues not seen by the project team.

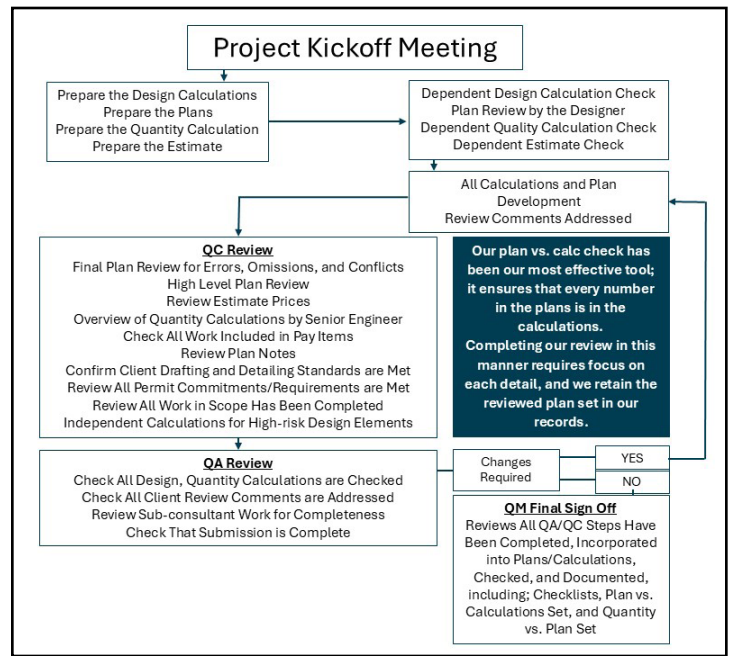
Depending on the size of the project, this third-party can participate in reviews at various critical steps of the project. Project managers are responsible for developing QA/QC plans as part of their work plans.

Cost Control

Our team continually monitors budgets and looks for ways to control and reduce costs. Once a project scope and fee have been successfully negotiated and a Notice to Proceed has been provided, the project budget is placed into Deltek Vantagepoint, our budget and financial tracking program.

Hours for each task are given to the project team so that they are aware of budget requirements. Project Managers track the budgets daily. Fuss & O'Neill senior management meets monthly with occur project managers to ensure that budgets are being respected.

When a project's scope changes, we proactively work with the client to redefine the scope of work and alter the budget if needed.



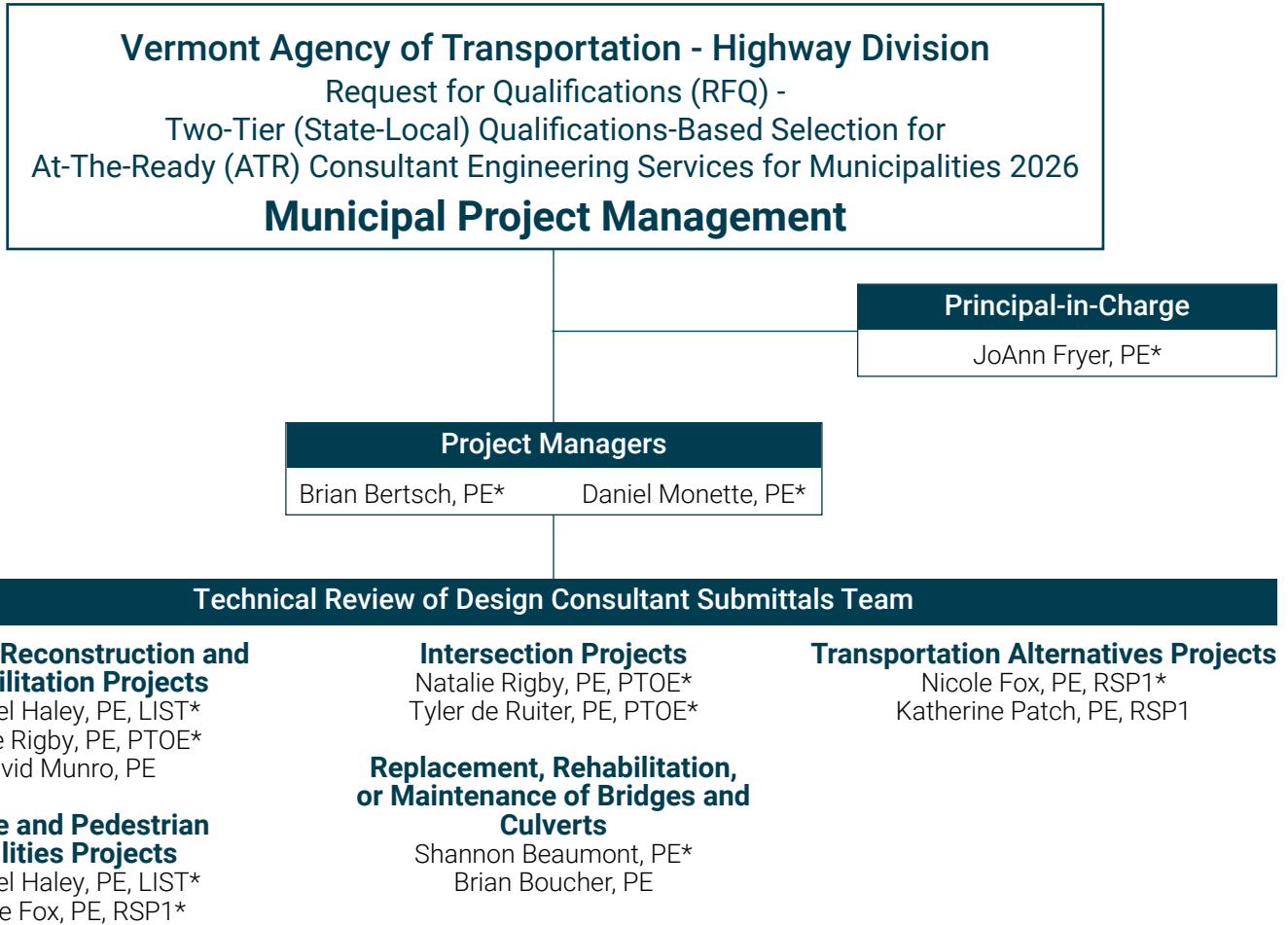
Schedule Control

Fuss & O'Neill works on more than 1,000 projects a year. We utilize scheduling software and strong project management to ensure that our projects are appropriately staffed. Project Managers use Microsoft Outlook software to schedule staff, equipment, and vehicles. To track the progress of individual projects, Microsoft Project software is used to create schedules that contain tasks, subtasks, milestones, and "critical path" items. To monitor project progress and performance, Project Managers use Deltek's Vantagepoint software, which is an integrated web-based system that supports every phase of a project life cycle, from proposal inception to project completion.

For each project, we create the appropriate team, staffed with personnel with the right backgrounds and experience to perform the work. If a project requires subconsultants, our Project Manager will collaborate with them during the scoping and budgeting phase.

Our Project Manager plans the work and communicates the plan to the entire project team and the client. This communication is necessary to keep our team on track, coordinated, and to provide the deliverables and services necessary to effectively complete the project. We will also coordinate with the regulatory agencies and ensure that their requirements are understood and incorporated into the project early in the development phase.

C. Organizational Chart



*Key Personnel

D. Technical Capability

Qualifications and Experience of Firm

Our decades of experience working with VTrans has given us a strong understanding of the Agency's processes, procedures, and expectations. We work on projects through the Municipal Assistance Section, as we work in conjunction with Town personnel and VTrans staff to deliver high-quality design solutions on projects across Vermont.

We understand how the relationships among all parties must work for a successful contract. Fuss & O'Neill can draw on these project experiences to help streamline the project process, serving as an advisor to the Town, a technical resource to the contractor, and an information source to the public.

Additionally, Fuss & O'Neill has been providing roadway design services for state, federal, municipal, and private sector clients throughout New England for decades.

We hold work for, and hold on-call contracts with, every state department of transportation in New England.

Having employees, offices, and experience throughout New England evolves our work process. Every project is an opportunity to understand and solve new challenges.

Though states and individual municipalities have their own regulations and particular challenges, there are a lot of similarities among the six New England states - especially with regard to aging and/or insufficient infrastructure.

Fuss & O'Neill's internal structure is designed for work sharing and collaboration. Therefore, our employees' abilities and creative problem solving approaches are forever expanding. We bring this deep bench of experience and expertise to effectively and efficiently support our clients.

Department of Transportation Experience

As noted here, our experience throughout New England helps us better serve our clients. This is particularly true with regard to our state departments of transportation experience. For example, Fuss & O'Neill currently holds the Consultant Liaison Engineering (CLE) contract with the Connecticut Department of Transportation (CTDOT) Division of Traffic Engineering. This contract has many similarities to the At-The-Ready contracts.

For this CTDOT contract, our traffic and transportation engineers serve as an extension of CTDOT. Our team reviews and collaborates with CTDOT staff to establish scopes of work, schedules, and work hours. We serve as general support for the Department's Project Managers, we provide project administration services, and we prepare project documentation for dozens of traffic signal and safety projects. Fuss & O'Neill further supports these projects by coordinating with utility companies and the Division of Rights-of-Way.

Under this contract, Fuss & O'Neill provides oversight of four task-based consultants who are responsible for the engineering and preparation of contract plans, specifications, estimates and other documents. Our team assists with project scoping, cost estimating, staff hour estimating, scheduling, and review of progress payments. They oversee task planning, direction, and tracking in all areas of design development.

Additionally, our team provides liaison and plan review services for locally-administered projects and provides construction support services.

Contact: Jonathan Corilla Highway Design
860.594.2755 jonathan.corilla@ct.gov

Roadway Reconstruction and Rehabilitation Projects

Fuss & O'Neill has completed thousands of roadway projects throughout New England. Our transportation engineers, represented here by Michael Haley, PE, LSIT, Natalie Rigby, PE, PTOE, and David Munro, PE, are well versed in roadway geometry, drainage, traffic calming, and complete streets design - from initial concepts through construction.

We have completed projects ranging from large-scale full depth roadway reconstruction to local road and intersection improvements. Projects include all aspects of geometric improvements (superelevation, roadside drainage, closed drainage systems, curb, sidewalk and ADA accessible curb ramps). Our roadway safety engineering experience includes designing safety elements such as guardrails, barrier systems, impact attenuators, breakaway sign supports, and other safety devices, as well as special treatments for difficult locations.

We consider our client's short- and long-term goals, factor in the varied user experience (pedestrians, cyclists, commuters, public transport, special needs, and vehicles), and respect the surrounding natural environment. We evaluate existing crash/safety issues or access management concerns and integrate our design recommendations with proposed land use and regional transportation improvement strategies.

We are a project partner from the conceptual design through construction, providing comprehensive services (traffic engineering, environmental restoration, flood mitigation, streetscape design, climate resilience, and resident engineering) to reduce budgets and schedules.



VT Route 108 Reclamation and Shoulder Widening



Fuss & O'Neill Complete Street Design

Bicycle and Pedestrian Facilities Projects

Fuss & O'Neill designs with the user in mind – creating spaces for cyclists, walkers, runners, and those with special needs. Our team, represented here by Michael Haley, PE, LSIT and Nicole Fox, PE, RSP1, believe that all streets should provide access, connectivity, and safety for all. Fuss & O'Neill has planned, designed, and permitted some of the most progressive transportation solutions in New England, while always adhering to state and environmental regulations.

We understand that providing safe multimodal opportunities requires clear delineation of space, accessibility for all users, development of a sense of place, speed control, and advance communication to travelers.

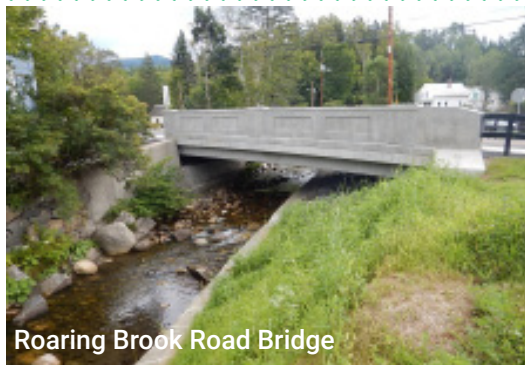
When part of a roadway, special attention must be paid to pavement markings to help the cyclist and motorist remain in their lanes. A separate shared-use path requires appropriate pavement markings and detectable warnings at intersections and signage along the facility to warn users of potential hazards; rail trail projects often allow cyclists to travel greater distances with fewer road crossings. Our designers specialize in these kinds of projects, and take pride in designing facilities that are ADA-compliant to allow users of all mobility levels to navigate the infrastructure.

Intersection Projects

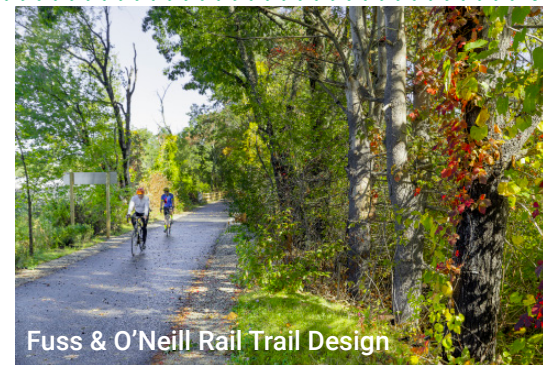
Fuss & O'Neill understand the critical safety nature of intersection design. Our traffic engineers, represented here by Natalie Rigby, PE, PTOE and Tyler de Ruiter, PE, PTOE, conduct traffic counts, analyze crash history, and study traffic flows to fully analyze an intersection. We have experience with sign-controlled and signalized intersections, and have particular expertise modifying existing layouts for roundabouts. To assist our municipal clients, we incorporate specialized software, which allows DPWs to monitor traffic in real time and to make timing and phasing adjustments remotely through cloud servers. Our multidisciplinary team ensures that we incorporate stormwater controls and coordinate with utility companies. We design for all users and design context-sensitive solutions, including raised/high-visibility crosswalks, RRFBs, and solar-powered lighting.



Fuss & O'Neill Intersection Improvements



Roaring Brook Road Bridge



Fuss & O'Neill Rail Trail Design

Transportation Alternatives Projects

Fuss & O'Neill works with municipalities to transform their visions into inviting spaces for cyclists, walkers, runners, and those with special needs. Our team, represented here by Nicole Fox, PE, RSP1 and Katherine Patch, PE, RSP1, understand the importance of these projects - they repurpose under-used land, connect underserved communities by providing equitable access to resources and opportunities, provide sustainable alternative transportation, promote healthier lifestyles, and foster community engagement.

Our streamlined approach reduces the project timeline as we integrate environmental, resilience, site/civil, landscape architecture, and natural resource specialists with our transportation engineering support. As proponents of sustainability, we seek to re-use and refurbishment opportunities and use natural, local, and sustainable materials.

Replacement, Rehabilitation, or Maintenance of Bridges and Culverts

Culverts and bridges are critical transportation infrastructure that serve an important role in public safety, ecological health, and resilience. Our structural team, represented here by Shannon Beaumont, PE and Brian Boucher, PE, has experience planning and implementing new and replacement road-stream crossings to meet state and federal requirements, stream crossing standards for ecological and geomorphic compatibility, and climate resilience standards to ensure that crossing designs are resilient to future increases in precipitation and streamflow. Our designs conform to applicable state DOT and Federal Highway Administration design requirements

Fuss & O'Neill provides bridge and culvert engineering services, including inspection and evaluation and design of bridge repairs, rehabilitations, replacements, and new structures. We have experience with concrete and steel bridge elements, historic structures, single and multiple span bridges, as well as a variety of steel trusses, stone and masonry arches, precast concrete boxes/arches/frames, timber, steel and pre-stressed concrete girders. We regularly incorporate staged techniques into our designs to maintain traffic during construction.

We have experience in hydraulic modeling and design, specifically analyzing and sizing culverts to accommodate specified design flows. We use modeling programs such as the FHWA's HY-8 Culvert Design Analysis Program for culvert design, and HEC-RAS to perform 1D steady flow modeling. We are experienced with 2D flow modeling with SRH-2D utilizing SMS.

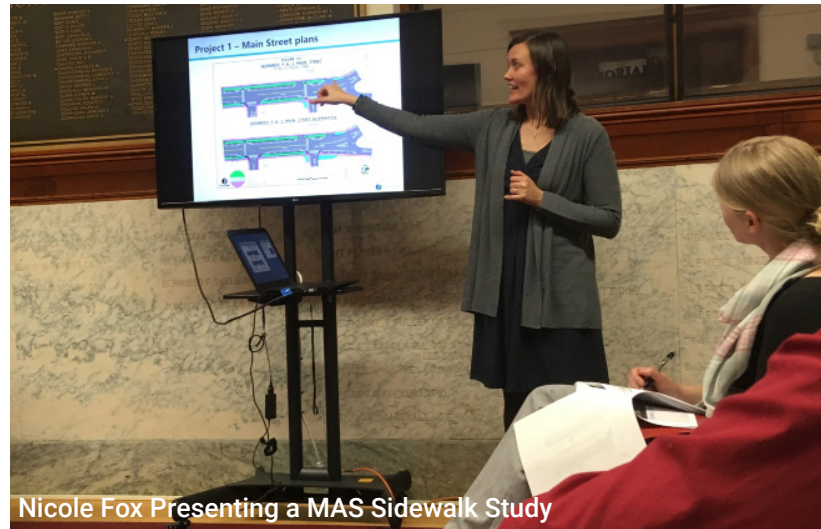
Public Outreach and Participation

All of our projects require client engagement at various levels, and oftentimes community outreach on behalf of our clients. Our professionals are skilled facilitators and sensitive to our clients' concerns.

We focus on clear communication and collaboration and have extensive experience with meetings, charrettes, and workshops. We routinely participate in stakeholder, public information, and planning and zoning meetings for infrastructure planning studies and land use applications for public and private development projects. We excel at collaboration between private business and public agencies, and understand the importance of sharing study objectives with the public, soliciting valuable input on their concerns, and building consensus in order to develop preferred alternatives. We work with public and private project owners and other stakeholders to develop consensus regarding projects that meet the regulatory, financial, cultural, and political objectives of a community.

For ongoing projects, we develop websites and social media accounts for ease of accessibility and availability. These feedback tools facilitate maximum interaction with stakeholders. We ensure equitable engagement by creating materials in multiple languages and holding events at times and locations appropriate for the audience. Additionally, we record session and make them available online for viewing for those who could not attend in person.

Our professionals live and work in the communities we serve. They understand the local conditions and challenges these communities face and are personally vested in developing cost-effective, long-term solutions that add value to the community. Because of their keen understanding of the ramifications to the community, they can easily identify key points that resonate with their audience and are very successful in obtaining public consensus.



Municipal Plan Reviews and RFP/RFQ Preparation

Fuss & O'Neill provides plan review services for Planning Boards for municipalities. We have extensive experience in applying not only a municipality's regulations and ordinances to the application under review, but also state and federal regulatory provisions, permitting requirements, and generally-accepted engineering standards.

Fuss & O'Neill has provided all levels of construction inspection services associated with Planning Board peer-reviewed and approved projects, as well as large-scale public works construction projects with water, sewer, drainage, and roadway construction elements using public and/or private funding sources. We have provided resident engineering services for multiple sidewalk construction projects where adherence to ADA requirements was critical to the completion and acceptance of the project.

Transportation Project Examples - Roadway Reconstruction and Rehabilitation Projects



VT Route 108 - Bakersfield, VT Completed - 2022

Contact:
Bruce Martin, Roadway Design Project Mgr.
802.595.9653
bruce.b.martin@vermont.gov

Fuss & O'Neill provided roadway, drainage, stormwater, and environmental services for a 0.65-mile reclamation and shoulder widening project. This project included closed-system design, stormwater treatment, intersection improvements, a new sidewalk, utility relocations, coordination and oversight of pipe video inspection survey, special provisions and technical specifications for soil and groundwater management, monitoring well decommissioning, technical support for environmental permitting (NEPA, 4f/6f Section 106 Analysis, Wetland Conditional Use Determination, and Section 401 Water Quality Certificate), coordination with the property owners, and presentation at the Public 502 Hearing.

VTrans Lyndon STP 0113(65) - Lyndon, VT

Status - Ongoing

Fuss & O'Neill is providing preliminary roadway and drainage design services and a right-of-way plan for a 0.81-mile full-depth reconstruction of US Route 5.

Contact: Bruce Martin, PE Roadway Design Project Manager
802.595.9653 bruce.b.martin@vermont.gov

VTrans Brattleboro STP PC25(6) - Putney, VT

Status - Ongoing

Fuss & O'Neill is providing design plans for milling and paving for three projects composited into one construction project: U.S. Route 5, VT Route 9, VT Route 30, and VT Route 142.

Contact: Brandon Kipp, PE Project Manager
802.224.6110 brandon.kipp@vermont.gov

VTrans St. Albans Town-Swanton STP PS25(7) - Swanton, VT

Status - Ongoing

Fuss & O'Neill is providing support for a "mill & fill and level & roadway" treatment project that includes evaluation of five signal systems.

Contact: Brandon Kipp, PE Project Manager
802.224.6110 brandon.kipp@vermont.gov

Transportation Project Examples - Intersection Projects

VTrans U.S. Route 5 Intersection Signal Project - Lyndon, VT

Status - Ongoing

Fuss & O'Neill is designing traffic signal replacement at the intersections of U.S. Route 5 and Back Center Road and U.S. Route 5 and VT Route 114 and VT Route 122. This project will modernize signal equipment and refresh signal-related pavement markings and signs. Fuss & O'Neill is responsible for client and subconsultant coordination, layout of new signal equipment, pavement markings and signs, resolution of signal conduit conflicts with underground utilities, as well as QA/QC of plans, quantities and estimate for replacing existing span wire signal installations with new mast arm installations with modern signal equipment at two intersections.

Contact: Taylor Sisson, AOT Project Manager
802.249.9246

taylor.sisson@vermont.gov

VTrans U.S. Routes 4 and 7 - Wallingford, Clarendon, and Rutland Town, VT

Status - Ongoing

Fuss & O'Neill is designing layout of new signal equipment, pavement markings and signs, resolution of signal conduit conflicts with underground utilities, and QA/QC of plans, quantities and estimate for replacement of span wire signal installations with new mast arm installations with modern signal equipment at three four-legged intersections. These designs accommodate vehicle and pedestrian volumes while prioritizing safety for all roadway users.

Contact: Michael LaCroix AOT Project Manager II
802.371.9528 michael.lacroix@vermont.gov

U.S. 2/VT 314 Intersection Improvements - South Hero, VT

Completed - 2022

Fuss & O'Neill designed the addition of a left-turn lane and a raised apron that accommodates commercial truck turning movements and discourages passenger vehicles from rolling through the intersection. We provided public outreach and stakeholder meetings, development of intersection alternatives, preliminary and final design, ROW plan development and support, environmental engineering (including Phase I and II ESAs) and stormwater permitting.

Contact: Michael LaCroix AOT Project Manager II
802.371.9528 michael.lacroix@vermont.gov

Transportation Project Examples - Bicycle and Pedestrian Facilities Projects

MPM
Project

Williston Road Multi-use Facility - South Burlington, VT

Status - Ongoing

Fuss & O'Neill collaborated with the City to design a paved multi-use facility two-to-eight-footwide greenbelt and a ten-foot-wide concrete path with pedestrian level lighting and landscaping.

The multi-use facility, pedestrian level lighting, and landscaping improvements will enhance the attractiveness of the area from a "typical" city street to an inviting multimodal environment designed to accommodate all users. As part of the design, Fuss & O'Neill completed infiltration testing and groundwater monitoring to support our stormwater treatment design for this MS4 community. The project area incurs a significant amount of vehicular traffic and originally had narrow shoulders that made this section of road undesirable for many bicyclists.

Contact: Ilona Blanchard, AICP, Community Development Director
802.846.4123 iblanchard@southburlingtonvt.gov

Parson's Hill Sidewalks - Castleton, VT

Completed - 2025

Through the VTrans Municipal Assistance Section. Fuss & O'Neill oversaw construction of a 1,300-foot sidewalk along the north side of Route 4A from the intersection with Route 30 east to Parsons Hill Road. The design includes sidewalk alignment, section views, construction details, grading, stormwater management, and erosion controls.

Contact: Michael Jones, Town Manager
802.468.5319 manager@castletonvt.org

Sugarbush Shared-use Path - Warren, VT Status - Ongoing

Through the VTrans Municipal Assistance Section. Fuss & O'Neill is overseeing final design and construction of Segment 1 of this 0.7-mile shared-use path to address safety issues along the corridor through the provision of dedicated and accessible pedestrian infrastructure in this high-profile, densely populated location. This project is funded in part by the FHA and the Town.

Contact: Misha Golfman, Executive Director
802.496.7284 misha@madrivertpath.org

MPM
Project

Transportation Project Examples - Transportation Alternatives Projects

Pedestrian Accessibility Scoping Study - Pawlet, VT

Completed 2022

Fuss & O'Neill conducted a scoping study to assess needs and options for improvements to pedestrian accessibility, safety, and walkability. This project utilized public outreach to inform and select a preferred design alternative that can be advanced to construction. This project included significant coordination with VTrans to ensure the alternatives developed met their priorities while also prioritizing safety for pedestrians to ensure the alternatives presented to the Town would be implementable. The Town was able to use the scoping study to secure a grant from VTrans MAS to pursue the design of a sidewalk improvement project.

Contact: Devon Neary, Exec. Director, Rutland Regional Planning Commission 802.775.0871 x203 devon@rutlandrpc.org

Ashuwillticook Rail Trail - Pittsfield, MA

Completed - 2022

Fuss & O'Neill designed a 1.56-mile, 10-foot-wide shared-use path provides safe walking and bicycling transportation facilities into a commercial area. Safety features include shaded rest areas and two new large parking areas with new lighting. Signage and Rectangular Rapid Flashing Beacons at key roadway crossings provide additional safety. The trail is fully ADA compliant, including a fully-plumbed comfort station. This project required environmental permitting, wetland delineation, and stormwater management.

Contact: Ricardo Morales, Commissioner of Public Services & Utilities
413.448.9768 morales@pittsfieldma.gov



Transportation Project Examples - Replacement, Rehabilitation, or Maintenance of Bridges and Culverts Projects

U.S. 2 /VT 314 Culvert Replacement - South Hero, VT

Completed - 2022

Fuss & O'Neill provided project development, structural design, plan preparation oversight, and hydraulic modeling for the replacement of a concrete box culvert with a 5-foot drop inlet at its upstream invert. The replacement culvert is a buried 8-foot-span by 6-foot-rise precast concrete box culvert with integral bed retention sills and stream bed material extending through the length of the structure.

The upstream invert was re-graded to provide a new stream channel and eliminate the 5-foot drop. Phased construction methods were utilized.



Contact: Michael LaCroix, AOT Project Manager II **802.371.9528** michael.lacroix@vermont.gov

VTrans Bridge No. 7 over the Poultney River - Poultney, VT

Completed - 2024

Fuss & O'Neill providing structural engineering services to VTrans for Bridge No. 7 on Thrall Road, a local road that is frequently used as a cut through between VT 140 and VT 30. During the design process, Fuss & O'Neill conducted meetings with the Town, stakeholders, and property owners to review the design, discuss their concerns, and incorporate the communities' requests where feasible.

Our team successfully expedited the design and advertised this project for construction a year ahead of schedule.

This project consisted of the replacement of a historic 95-foot-long riveted camelback (Parker) pony truss bridge. The replacement bridge was required to replicate the existing truss style and configuration based on direction from the VTrans Historic Section. The bridge curb-to-curb width was increased from 18 feet to 24 feet to accommodate standard lane and shoulder widths, and a new sidewalk was added to connect into the existing sidewalk on both ends of the bridge and improve pedestrian safety.

Contact: Thilliyar Mahendraratnam, Structures PM **802.917.2758** mahendra.thilliyar@vermont.gov

Culvert Replacement - Bridport, VT Completed 2022

Fuss & O'Neill completed a scoping study to evaluate replacement of twin 72-inch corrugated metal pipes. A public meeting was held to identify goals, objectives, and concerns, as well as to define the project's purpose and need. Fuss & O'Neill used this information to evaluate replacement alternatives that meet community needs. Three replacement alternatives were evaluated based on hydraulic capacity, utility impacts, ROW impacts, environmental and cultural resource impacts, and cost.

Contact: Tim Howlett, Selectboard Chair
802.758.2483 twhowlett@yahoo.com

This project followed the VTrans Project Definition Process.

Murray Hollow Culvert Replacement with Single-Span Bridge Arlington, VT Completed - 2023

For a poorly configured culvert under Murray Hollow Road, Fuss & O'Neill evaluated multiple design alternatives, including a three-sided box culvert with improved alignment, an embedded box culvert with improved alignment, and a single-span bridge on RediRock abutments. A single-span bridge was selected due to both client preference and the vertical profile of the roadway. We then designed a 60-foot-long single-span bridge structure. The design process included geomorphic assessment, hydrologic and hydraulic modeling, alternatives analysis, geotechnical investigation, site plan development, and environmental permit identification.

Contact: Erin Rodgers, Trout Unlimited
802.490.2750 erin.rodgers@tu.org

Key Personnel



JoAnn Fryer, PE
Principal-in-Charge

JoAnn's career has been focused on serving municipal clients in northern New England states. With more than three decades of experience designing transportation solutions, no one is more capable of leading this contract than JoAnn. As a Senior Vice President, JoAnn represents the firm's commitment to this contract. She understands the gravity of this contract and will ensure availability, communication, response, and technical excellence. JoAnn is in responsible charge of this contract and all the projects that may come from it. She will ensure that Fuss & O'Neill meets all contractual obligations, will support the Project Managers and support staff as needed, and will resolve any issues that VTrans or the municipality encounter.



Brian Bertsch, PE
Project Manager

Brian has more than two decades of experience with transportation and civil engineering projects. As Fuss & O'Neill's Williston Office Manager and a Senior Project Manager, Brian has led and provided project support for more than 25 municipal and state agency projects in Vermont. Brian was the Project Manager for the following MAS projects: South Street Sidewalks (Castleton) and Sugarbush Shared-use Path (Warren). He is extremely familiar with the role of the MPM and will ensure compliance with contract requirements while fulfilling the needs of the municipality. Brian is committed to improving the quality of public infrastructure and ensuring the safety of all transportation users.



Daniel Monette, PE
Project Manager

Dan has more than 15 years of practical design & project manager experience. As Fuss & O'Neill's White River Junction Office Manager and a Senior Project Manager, Dan has been instrumental in expanding Fuss & O'Neill service offerings to municipalities statewide. Dan was the Project Manager for the following MAS projects: Pedestrian Pathway and Village Pedestrian Improvements (Thetford), Valley Trail Extension (Dover), and Parson's Hill Road Sidewalk (Castleton). Dan is extremely familiar with the MPM role and will ensure compliance with contract requirements while fulfilling the needs of the municipality. Dan has particular experience with the construction phase of projects, which means that his design solutions are always constructable.



**Michael Haley, PE,
LSIT**
Roadway Reconstruction
and Rehabilitation and
Bicycle and Pedestrian Facilities

Mike is an experienced transportation engineer and is Fuss & O'Neill's Work Zone Resource Officer on all VTrans projects. Mike's experience as a resident engineer informs his designs and ensures constructability and efficiency. Drawing on his background designing innovative shared-use paths, sidewalks, roadways, and parking lots, Mike leads and creates practical and constructable solutions for Vermont municipalities. Mike works closely with his clients, listening to their concerns and making sure he understands their needs – both current and future needs. He then leads teams to design context-sensitive improvements that create safer passageways for all roadway users. He understands the importance of multimodal connectivity, as it reduces traffic congestion, supports economic growth, and provides equitable and accessible systems.



**Natalie Rigby, PE,
PTOE**

**Roadway Reconstruction
and Rehabilitation and
Intersection Projects**

Based out of Fuss & O'Neill's Williston office, Nataillie brings more than two decades of roadway design experience to this contract. Natalie is a strong Project Manager and has years of experience developing and overseeing project scopes, budgets, and quality documentation. Natalie is well-versed in VTrans design procedures and knows how to achieve client goals within Agency regulations. Natalie has assisted clients throughout Vermont, and has experience with permitting, environmental management, and resilience considerations. She has implemented road diets, streetscapes, and pedestrian facilities; designed complex traffic control; led efforts for flood mitigation, scour, and erosion; and managed design for miles of roadside protection and dynamic signing.



Nicole Fox, PE, RSP1

**Bicycle and Pedestrian
Facilities and
Transportation Alternatives**

Nicole has a passion for inclusive design. She leads Fuss & O'Neill's Active Design Group and promotes shared roadway space, alternative pathways, and equitable access. Nicole leads roadway projects in our firm's north region, which means she has extensive experience designing in Vermont. Nicole has been trusted by many Vermont municipalities to assist with scoping studies to improve pedestrian accessibility, safety, and walkability. She has the design experience to then transform her thoughtful investigations into safe, practical, and constructable designs. Nicole served as Project Manager for 20 miles of rail trail in the southwestern portion of the state, and she has design pedestrian accommodations in more urban areas - always balancing the needs of the entire traveling community.



**Tyler de Ruiter, PE,
PTOE**

Intersection Projects

Tyler recently joined Fuss & O'Neill and has more than a decade of experience designing transportation solutions. He has experience working with VTrans on projects in Wallingford-Rutland, Lyndon, Bradford-St. Johnsbury, St. Albans-Swanton and -Sheldon, and Brattleboro-Putney. Tyler's experience with intersection projects rivals that of much senior engineers. This experience spans different types of roads in varying environments and conditions. This diverse background will help him work with a multitude of municipal clients who have differing needs. What remains consistent about his approach to intersection design is his commitment to safety.



Shannon Beaumont, PE
**Replacement, Rehabilitation,
or Maintenance of Bridges
and Culverts**

Shannon, an experienced bridge and hydraulics engineer, has worked the entirety of her 24-year career designing structural solutions for Vermont municipalities and for VTrans. She has experience working directly with clients, overseeing the technical aspects of projects, directing the activities of our staff engineers, and coordinating with the non-structural disciplines associated with projects. Shannon's experience touches the design, documentation, analysis, and management of bridge projects from the local to the signature scale. She has technical experience including the design of steel, reinforced concrete, and precast concrete structures. Shannon also has a wealth of design and plan preparation experience for culverts, including MAS culvert projects in Bridport, South Hero, Cavendish-Weathersfield, and Pittsford/Brandon.

Project Name (*Indicates Municipal Assistance Section Project)		Intersection Improvements	Roadway Reconstruction	Bicycle/Pedestrian Facilities	Bridge Replacement	Box Culvert Replacement	Drainage/Stormwater	Hydraulic Analysis	Landscape Design	Lighting	ROW Plans or Titles	Signage Design	Slope/Ledge Stabilization	Public Meetings	Traffic Control/TMP	Traffic Modeling/Analysis	Water/Sewer Coordination	Advertise/Bid/Construction	Environmental Investigation	
Complex Roadway/Intersection Projects	Bradford-St. Johnsbury STPG SGNL(66) US 5 Signals	•	•				•	•				•			•			•		
	Fair Haven-Rutland Town NHG SIGN(70) US 4 Signing											•			•	•			•	
	Colchester HES NH 5600(14) Exit 16 Roadway Reconstruction										•			•						
	Jericho STP HES 030-1(21) VT 15 Intersection	•	•			•	•	•				•		•	•	•			•	
	Lyndon STP 0113(65) US 5 Roadway Reconstruction	•	•	•		•	•	•		•		•		•	•	•	•	•	•	
	Pittsford BF 019-3(59) Bridge	•	•	•	•		•	•		•		•		•	•	•	•	•	•	
	Pittsford NH 019-3(492) Seg. 2 US 7 Roadway Reconstruction	•	•	•			•	•	•	•		•		•	•	•	•	•	•	
	Pittsford NH 019-3(493) & (494) Segment 3 & 4 US 7 Roadway	•	•			•	•					•	•						•	
	South Hero STP HES 028-1(22) US 2 Intersection	•	•			•	•	•				•		•	•	•			•	•
Wallingford-Rutland Town NHG SGNL(71) US 4&7 Signals												•			•	•				
Asset Improvement Projects	Bakersfield STP SCRP(11), VT 108 Drainage	•	•				•	•				•		•	•			•	•	
	Cavendish-Weathersfield ER STP 0146(14), VT 131 Reclamation	•	•			•	•					•	•		•	•	•	•	•	
	Interstate Renumbering Signing, Statewide, VT											•			•				•	
	Londonderry-Chester STP PS19(10), VT 11 Reclamation		•									•			•				•	
	Lyndon STPG SGNL(48), US 5 Signals	•										•			•	•			•	
	Lyndon STPG SGNL(70) US 5 Signals	•										•			•	•				
	Poultney BO 1443(53) Bridge		•	•	•							•			•				•	
	Pownal-Manchester NHG SIGN (71) US 7 Signing											•			•				•	
	South Burlington STP BP17(9) Cycle Track and Pedestrian Path			•		•	•	•		•	•	•			•					
	South Burlington STP BP17(9) Shared Use Path			•			•		•	•	•	•		•	•					
	South Burlington STP MM21(1) Stormwater Scoping & Design						•				•				•				•	
	South Burlington TAP TA18(7) Stormwater Pond						•				•				•					
	St. Albans-Sheldon STP 2941(1) VT 105 Signal & Paving											•			•	•			•	
	Wallingford-Rutland NHG SIGN (68), US 4 Signing											•			•				•	
	West Rutland STP BP21(14) Pedestrian Path			•							•			•					•	
	Studies	Bridport STP MM24(1) Culvert Scoping Study			•		•	•												
		Castleton TAP TA20(9) Scoping Study			•			•			•			•						
Cornwall-Middlebury STP 0172(11) Scoping Study		•	•	•										•						
Fairlee IM 091-2(91) Scoping Study						•	•													
Pawlet STP BP22(16) Pedestrian Accessibility Scoping Study		•		•					•	•		•		•						
New Haven STP BP20(11) Munger Street Scoping Study				•										•						
Sharon TAP TA23(8) Village Sidewalk Scoping Study						•	•					•		•						
Sheffield STP BP23(22) Sheffield Sidewalk Scoping Study				•										•						
Williston STP 5500(20) US 2 Drainage Study						•	•													

APPENDIX A

Resumes



JoAnn Fryer, PE - Key Personnel

Principal-in-Charge



Firm Role

Senior Vice President | Transportation
Market Leader

Education

Bachelor of Science, Civil Engineering - 1991
University of New Hampshire, Durham

Experience

9 Years with Fuss & O'Neill
34 Years Professional Experience

Licenses and Registrations

NHDOT LPA Certified
Professional Engineer MA
Professional Engineer ME
Professional Engineer NH

JoAnn has decades of experience in transportation and civil engineering, including work for federal, state, municipal, and private clients. She has worked through all levels of project development for transportation and site development projects, including construction administration and resident engineering services for projects of all sizes.

JoAnn has outstanding communication skills, which leads to efficient and effective coordination with clients, staff, subconsultants, and other stakeholders. This streamlines the management and development of projects to meet budgeting and timeline constraints.

Representative Projects:

MAS Project: Airport Drive and Kennedy Drive Stormwater Improvements - South Burlington, VT

Principal-in-Charge for development of stormwater improvements along Airport Drive and Kennedy Drive to manage 18.35 acres of runoff. These are two separate projects located within the same watershed that require coordination throughout the design process. The Airport Drive stormwater treatment system is an underground infiltration system located on vacant lots owned by the Burlington International Airport. The Kennedy Drive improvements are a retrofit of the existing detention pond into a gravel wetland. The addition of stormwater treatment along Airport Drive reduces the flow to Kennedy Drive requiring close coordination between the two projects.

MAS Project: Slope Stability Project Constructability Review - Highgate, VT

Principal-in-Charge for a constructability review of a soil nailed wall at the top of an embankment to determine if it is practical to perform the necessary repair to the riverbank exclusively from the top easement area, or if it is valuable and practical to secure additional construction easements for access from the base of the slope as part of the right-of-way phase.

MAS Project: Drainage Scoping Study - Bridport, VT

Principal-in-Charge for a scoping study to evaluate the replacement of twin 72-inch corrugated metal pipes that carry the East Branch Dead Creek under Middle Road. The study evaluated three replacement structures to improve the hydraulic capacity of the crossing, to improve the roadway to meet current safety standards, and to balance replacement costs and impacts. Three replacement alternatives were evaluated based on hydraulic capacity, utility impacts, right-of-way impacts, environmental and cultural resource impacts, and cost. A scoping report was written to compile all information and present the Town's preferred alternative.

MAS Project: South Street Reconstruction - South Hero, VT

Quality Control Manager for reconstruction/reclamation of 1.3 miles of local street to provide improved roadway and drainage. JoAnn was responsible for quality control review of contract plan submission and for the development of contract documents

joann.fryer@fando.com
603.222.3469
www.fando.com

and special provisions. The project was locally managed and federally funded through the VTTrans Municipal Assistance Section (MAS) program.

MAS Project: U.S. Route 7 Reconstruction (Segment 6) - Brandon, VT

In her role as Senior Project Engineer, JoAnn was responsible for development of the Traffic Management Plan, bid documents, and special provisions. This project included urban reconstruction of 1.25 miles of U.S. Route 7, as well as relocation of overhead and underground utilities along the corridor. The corridor included a historic stone arch bridge over the Neshobe River. JoAnn led efforts to complete the hydrologic and hydraulic analyses for a river reach that caused downtown flooding during a tropical storm. The study of this reach included several upstream structures, including buildings over the river and a dam. JoAnn prepared a detailed Hydraulic Report with recommendations for options to alleviate flooding and presented study results to local and state officials to assist the Town apply for funding to implement recommendations.

MAS Project: U.S. Route 7 over Neshobe River - Brandon, VT

Senior Project Engineer for hydrologic and hydraulic analyses for a river reach that caused downtown flooding during a tropical storm. The river flows through the downtown area, with several buildings and bridges spanning over the river, including the Town office building and an existing 42-foot twin stone arch structure (Bridge No. 114) carrying U.S. Route 7 (Center Street). JoAnn was responsible for review of hydrologic and hydraulic computations, model development, and comparison to established FEMA standards and observed conditions. JoAnn prepared a detailed Hydraulic Report with recommendations for options to alleviate flooding, and presented study results to local and state officials to assist the Town in applying for funding to implement recommendations.

MAS Project: VT Route 100 (Lower Main Street) Sidewalk Project - Stowe, VT

Quality Control Manager responsible for plan review and development of bid documents and special provisions for this 1,200-foot Municipal Assistance Section (MAS) sidewalk project. The design included the realignment of River Road, the connection of the recreation path to the sidewalk, access management, and aerial utility relocation. Drainage improvements were designed to avoid impacts to the Town's water and sewer infrastructure and to minimize impacts to the adjacent properties. Fuss & O'Neill provided technical support at public meetings, developed the conceptual plans, right-of-way plans, contract plans, cost estimates, bid documents, and assisted the Town and VTTrans with construction administration.

Munger Street Bicycle Scoping Study - New Haven, VT

Principal-in-Charge of a scoping study for bicycle improvements on behalf of the Addison County Regional Planning Commission. This project identified and prioritized improvements; included public engagement; assessed historic, archeological, and environmental impacts; and provided preliminary cost estimates.

Pittsford 019-3(492), Segment 2 - Pittsford, VT

Principal-in-Charge for preliminary, ROW, and final design and construction services for this 1.45 mile urban roadway reconstruction project. The project includes improvements to the horizontal and vertical geometry, superelevation, concrete sidewalk, improvements to nine intersections, aerial utility relocation, closed drainage system, and stormwater design for five best management practices. Coordination with the Town's consultant for the relocation of the municipal water and sewer.

NHDOT NH Route 108 and Bunker Hill Avenue Intersection Improvements – Stratham, NH

Principal-in-Charge for the planning phase of an intersection improvement project. The project included identification and traffic evaluations of improvement alternatives to address capacity concerns at NH Route 108 and Bunker Hill Avenue. Specific considerations included intersection capacity, crash analysis, sight distance limitations, cultural resources, and traffic volumes.

NHDOT US Route 3 Corridor Improvements – Whitefield, NH

Principal-in-Charge for the preliminary design phase of a corridor improvement and complete streets project along US Route 3 in Whitefield. The project begins at the intersection of Jefferson Road (NH Route 116) and US 3 in downtown Whitefield and extends north approximately 0.6 mi. The project will develop alternatives to improve safety, accessibility, and mobility for pedestrians and bicyclists, as well as vehicles. The project includes development of roadway and complete streets improvements, traffic evaluations, public engagement, and preliminary plan development. Specific considerations include sight distance limitations, steep roadway profile, drainage concerns, and ADA accessibility.

Brian Bertsch, PE - Key Personnel

Project Manager



Firm Role

Senior Project Manager | Office Leader

Education

Master of Science, Civil Engineering - 2006
Norwich University

Bachelor of Science, Civil/Environmental
Engineering - 2002
University of Vermont

Experience

2 Years with Fuss & O'Neill
22 Years Professional Experience

Licenses and Registrations

Professional Engineer NH
Professional Engineer VT

Brian has two decades of civil engineering, construction and development experience. He has particular expertise providing site/civil engineering for public and private site and infrastructure projects. He is well-versed in project management and excels at problem solving and effective communication, as well as the ability to manage several projects simultaneously. Brian takes a practical, team-oriented approach to project delivery. He focuses on clear communication, efficient coordination, and delivering high-quality results that meet both client goals and project timelines.

Representative Projects:

Marble Street Parking Lot - West Rutland, VT

Project Manager for design and permitting for a new public parking area and pedestrian path connection on a Town-owned parcel. The design included underground infrastructure to make the parking area EV ready and a bioretention area to treat and detain stormwater runoff from the site. The project was managed by the City with support from the VTrans Municipal Assistance Section.

MAS Project: South Street Sidewalk Consulting - Castleton, VT

Municipal Project Manager for the final design and construction administration services for a 940-foot sidewalk on South Street. The design will enhance mobility and access, and aesthetic improvements. The project was managed by the City with support from the VTrans Municipal Assistance Section.

MAS Project: Parson's Hill Road Sidewalk - Castleton, VT

Project Manager for the construction of a 1,300-foot sidewalk along the north side of Route 4A from the intersection with Route 30 east to Parsons Hill Road. The design includes sidewalk alignment, section views, construction details, grading, stormwater management, and erosion controls. The project was managed by the City with support from the VTrans Municipal Assistance Section.

MAS Project: Sugarbush Shared-use Path - Warren, VT

Project Manager for final design and construction of Segment 1 of this 0.7-mile shared-use path to address safety issues along the corridor through the provision of dedicated and accessible pedestrian infrastructure in this high-profile, densely populated location. This project is funded in part by the Federal Highway Administration and the Town of Warren, through the VTrans Municipal Assistance Section (MAS).

Stormwater Study - Windsor, VT

Project Manager for stormwater study in downtown portion of Windsor, VT to support roadway and drainage improvements. The goals of this study is to determine what has caused flooding in Central Street and to prioritize improvements in Central Street and the system that conveys runoff to River Street and ultimately the Connecticut River outfall. This study will complement the design of improvements in Durkee and Central Streets.

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Stormwater Mitigation - Castleton, VT

Project Manager for the final design of the Village School Stormwater Mitigation project to provide stormwater treatment of urban runoff from a significant portion of Downtown Castleton. Fuss & O'Neill is designing a Tier 1 stormwater treatment system that maximizes the volume of water treated and is easy for the Town to maintain with available DPW resources.

Central and Durkee Streets - Windsor, VT

Project Manager for design of improvements and repair/replacement of water, sewer and drainage utilities to the Central Street and Durkee Street roadway corridors. The design will address flooding concerns in Central Street and improve vehicular and pedestrian access and make aesthetic improvements along Central and Durkee Streets.

Blow-Me-Down-Mill - Cornish, NH

Project Manager for construction documents needed to comply with state and federal wildlife agencies requirements for National Park Service acquired wetlands permits.

6 Ethan Allen Drive - South Burlington, VT

At a previous firm, Project Manager to oversee the design, permitting, and construction of a 40,000 square-foot multi-tenant commercial building at the corner of Airport Parkway and Ethan Allen Drive in South Burlington. Extensive LID stormwater practices were incorporated into the design, including rain gardens and a network of underground stormwater storage chambers designed to reduce runoff and promote groundwater recharge.

Stormwater Upgrades at the Taft Farms Shopping Center - Williston, VT

At a previous firm, Project Manager to oversee the design, permitting, and construction of stormwater improvements for a shopping center built in the 1990s. The project was located in an impaired portion of the Allen Brook Watershed and is part of a Flow Restoration Plan that the State of Vermont had approved to meet the Total Maximum Daily Load Limits (TMDLs) set by the EPA. The upgrades to the existing systems were designed to improve water quality in Allen Brook and helped the site meet the State of Vermont's 1-YR channel protection standard, which was not in place when the project was first approved.

Infrastructure System Replacements - Cornish, NH

Senior Civil Engineer providing project support for electrical Infrastructure system replacements and HVAC system replacements for the National Park Service.

Route 1 Adaptation - Scarborough, ME

Senior Civil Engineer for the road raising of Route 1. This project includes traffic data/collection, pavement design, utility coordination, a vulnerability assessment, and public outreach.

Gardenside Mixed-use Development - Essex, VT

At a previous firm, Project Manager to oversee the design, permitting, and construction of a 48-unit mixed-use infill development consisting of one 24-unit building, six 4-plex buildings, and a standalone 16,050 square-foot commercial building at the corner of RT 2A and Susie Wilison By-Pass in the Town of Essex. The site was intentionally designed to provide a mix of uses and a variety of housing options for an underutilized property in an area of dense development.

Cottonwood Crossing Mixed-use Development - Williston, VT

At a previous firm, Project Manager for design, permitting, and construction of Phases 1 and 2 in a five-phase mixed-use development, which, at full build out, will consist of 72,000 ft² of commercial space and 204 units of housing in the Town of Williston's growth center. The project was designed to connect the commercial/retail areas of Taft Corners to the more residential area of Williston Village by offering a mix of uses, range of housing types and densities, multiple access points, and pedestrian connections. The project was recognized by the State of Vermont's Natural Resources Board as an example of smart growth and efficient land use design.

Daniel Monette, PE - Key Personnel

Project Manager



Firm Role

Senior Project Manager | Office Leader

Education

Bachelor of Science, Civil Engineering - 2008
University of Vermont

Experience

9 Years with Fuss & O'Neill
17 Years Professional Experience

Licenses and Registrations

Professional Engineer CT
Professional Engineer MA
Professional Engineer ME
Professional Engineer NH
Professional Engineer NY
Professional Engineer RI
Professional Engineer VT
Professional Engineer WV
Septic Designer NH
Septic Designer VT

Achievements

ASDSO Filters and Drainage Systems for Embankment Dams
ASDSO 2021 Basic Soil Mechanics Related to Earth Dams
ASDSO 2023 Webinar: Sliplining Low-Level Conduits

Dan has engineering design and field experience on widespread projects throughout New England which enables him to prepare complicated utility and site design plans for a diverse range of projects. Additionally, Dan has expertise in the development of permitting packages and bid documents for submittal to federal, state, and local regulatory agencies. These efforts have led him to develop a strong working knowledge in municipal infrastructure, dam construction and repair, environmental engineering, civil/site design, roadway design, heavy civil construction projects, and land use permitting.

Representative Projects:

MAS Project: Castleton Corners – Route VT 4A and VT 30 Sidewalks, STP EH10(4) - Castleton, VT

Fuss & O'Neill was selected as the preferred consultant from the pre-qualified list of At-The-Ready firms to act as Municipal Project Manager for this sidewalk design and construction project. Dan assisted the Town with public awareness for the project, including door-to-door notifications and public hearings. He also reviewed bid documents and coordinated with the design engineer and VTrans to keep the project on track for construction.

MAS Project: Construction Inspection for Thetford Pedestrian Pathway and Thetford Village Pedestrian Improvements (constructed simultaneously) - Thetford, VT

The Town of Thetford selected Fuss & O'Neill from the pre-qualified list of At-The-Ready firms to provide construction inspection services through the VTrans Municipal Assistance Section (MAS) program for two projects. As Project Manager, Dan supervised Fuss & O'Neill's field personnel, coordinated and ran project meetings, reviewed contractor payment requisitions, and maintained communications with the Town, Design Engineers, VTrans, and the Contractor throughout construction.

MAS Project: Airport Drive Stormwater Treatment System Scoping Report and Final Design - South Burlington, VT

Senior Civil Engineer for the development of stormwater treatment system scoping report for the City of South Burlington. The project was located adjacent to Burlington International Airport and has a complex existing drainage system and flat terrain. Project work included conceptual design of stormwater treatment practices to treat a defined watershed area as part of the Potash Brook Flow Restoration Plan within the City's MS4 permit coverage area. The scoping report was used by the City to secure funding for the Final Design of the project. The project has progressed through Preliminary Plans and is currently in Right-of-Way and Final plans are being developed. The Airport Drive Stormwater Treatment and Kennedy Drive Stormwater Treatment projects are located along the same closed drainage system and coordination between the two projects was required.

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MAS Project: Valley Trail Extension MPM Services - Dover, VT

Project Manager for the extension of the Valley Trail System. This project is funded by FHWA and the Town through the VTrans Municipal Assistance Section (MAS). Fuss & O'Neill acted as the Municipal Project Manager.

MAS Project: Marble Street Parking Lot - West Rutland, VT

Senior Civil Engineer for design and permitting for a new public parking area and pedestrian path connection on a Town-owned parcel. The design included underground infrastructure to make the parking area EV ready and a bioretention area to treat and detain stormwater runoff from the site. The project was managed by the City with support from the VTrans Municipal Assistance Section.

MAS Project: South Street Sidewalk Consulting - Castleton, VT

Senior Engineer for the final design and construction administration services for a 940-foot sidewalk on South Street. The design will enhance mobility and access, and aesthetic improvements. The project was managed by the City with support from the VTrans Municipal Assistance Section. Fuss & O'Neill served as the Municipal Project Manager.

MAS Project: Parson's Hill Road Sidewalk - Castleton, VT

Project Manager for the construction of a 1,300-foot sidewalk along the north side of Route 4A from the intersection with Route 30 east to Parsons Hill Road. The design includes sidewalk alignment, section views, construction details, grading, stormwater management, and erosion controls. The project was managed by the City with support from the VTrans Municipal Assistance Section.

MAS Project: Drainage Scoping Study - Bridport, VT

Senior Civil Engineer for a scoping study to evaluate the replacement of twin 72-inch corrugated metal pipes that carry the East Branch Dead Creek under Middle Road. The study evaluated three replacement structures to improve the hydraulic capacity of the crossing, to improve the roadway to meet current safety standards, and to balance replacement costs and impacts. Three replacement alternatives were evaluated based on hydraulic capacity, utility impacts, right-of-way impacts, environmental and cultural resource impacts, and cost. A scoping report was written to compile all information and present the Town's preferred alternative.

MAS Project: Williston Road Shared-Use Path and Sidewalk Project - South Burlington, VT

Senior Civil Engineer for development of plans and estimate for the construction of a 2,000-lf bicycle path and the relocation of the sidewalk adjacent to Williston Road. The work included relocation of impacted closed drainage with extensive stormwater treatment facilities, lighting, and landscaping. Challenges included minimizing impacts to adjacent properties, avoiding existing utility features, and bicycle traffic. The project is being managed by the City with assistance from the VTrans Municipal Assistance Section.

Kimball Street and Forest Avenue Reconstruction (Water and Sewer) - Lebanon, NH

Project Manager for construction administration services and Resident Project Representation for a full-depth reconstruction project that includes new replacement water, sewer, and drainage systems.

Site Planning and Permitting for Wastewater and Stormwater - NH and VT

Dan served as Project Engineer and designer for more than 30 residential properties. Many of these properties were high-end lakefront redevelopments requiring state shoreland permitting. These designs were required to meet the requirements of the local approval processes through zoning and site plan review. Properties not connected to public sewer systems included the design of residential septic/effluent disposal systems. Lakefront properties are subject to comprehensive state environmental protection laws requiring the management and treatment of stormwater and a limit of the total lot impervious surface coverage.

Brookside Drive Culvert Replacement - New London, NH

Dan was responsible for design and permitting for replacement of two road crossings, which were both composed of three deteriorated 49-inch by 33-inch galvanized corrugated metal arch pipes constructed in the 1980s. Dan completed the initial survey collection, base plan production, hydraulic analyses, and plans for the replacement structures, which consisted of single 19-foot-wide aluminized steel box culvert (one for each brook crossing). Fuss & O'Neill completed the necessary permit applications and supporting documentation for the replacement structures. The design included stream simulation and natural rock water level control weirs to promote the migration and movement of aquatic life. Additionally, the project included guardrail design, establishment of slope and construction easements, and roadway reconstruction design. Other tasks performed included: preparation of bid documents and construction Engineer's estimate, as well as construction oversight services.

Michael Haley, PE, LSIT - Key Personnel

Roadway Reconstruction and Rehabilitation Projects and Bicycle and Pedestrian Facilities Projects



Mike's experience includes designing a variety of highway and site development projects ranging from bridge approaches, paving and overlay to full-depth reconstruction to curb and sidewalk projects. His primary area of expertise is in the development of 3D roadway design models, but he is well versed in all aspects of roadway design. Mike serves as Fuss & O'Neill's Work Zone Resource Officer on all VTrans projects and has served as a resident engineer on a number of construction projects, which has further enhanced his design skills. He is known for being a reliable problem solver committed to producing quality designs for clients.

Firm Role

Senior Project Engineer

Education

Master of Science, Civil Engineering - 2006
California State Polytechnic University, Pomona

Bachelor of Science, Civil Engineering - 2002
Clarkson University

Experience

9 Years with Fuss & O'Neill
23 Years Professional Experience

Licenses and Registrations

Land Surveyor In Training NH
Professional Engineer CA
Professional Engineer NH
Professional Engineer VT

Representative Projects:

MAS Project: Williston Road Shared-Use Path and Sidewalk Project - South Burlington, VT

Design Engineer for development of plans and estimate for the construction of a 2,000-ft bicycle path and the relocation of the sidewalk adjacent to Williston Road. The work included relocation of impacted closed drainage with extensive stormwater treatment facilities, lighting, and landscaping. Challenges included minimizing impacts to adjacent properties, avoiding existing utility features, and bicycle traffic. The project is being managed by the City with assistance from the VTrans Municipal Assistance Section.

MAS Project: VT Route 100 (Lower Main Street) Sidewalk Project - Stowe, VT

Highway Engineer for this 1,200-foot Municipal Assistance Section (MAS) sidewalk project in the Village of Stowe. Mike was responsible for reviewing a roadway profile developed by others, designing new drainage and a new bike path/ADA ramp, realigning an intersection, and performing quantity take-off calculations. This project involved a significant amount of coordination with local officials to ensure that the end product meets the Town's needs. Challenges included incorporating existing drainage features into the proposed design, as well as avoiding impacts to existing underground utilities including water, sewer, telephone, and cable television.

VTrans VT Route 125 Corridor Scoping Study - Cornwall/Middlebury, VT

This scoping project includes geometric and safety improvements along 2.5 miles of VT Route 125 from Hamblin Road in Cornwall to Bicentennial Way in Middlebury, including the intersection of VT 125 and James Road and Cider Mill Road. Study recommendations include profile improvements to improve sight distance and meet design criteria, widening shoulders to allow for safer bicycle access on VT 125, a separated multi-use path, replacing guardrail to meet current standards, and removing ledge outcropping to improve the clear zone. Mike completed the Benefit Cost Analysis and supported the designers creating the roadway modeling for the project.

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MAS Project: South Street Improvements - South Hero, VT

Highway Engineer for this 2.5-mile road project that was managed by the Town under the VTrans MAS program. The work included widening the roadway to accommodate both bicycle and vehicular traffic, analyzing the effects of lowering a section of the profile 5 feet to meet AASHTO criteria, and close coordination with the Agency of Natural Resources. To meet the client's funding needs this project was reduced to 1.3-miles.

MAS Project: Marble Street Parking Lot - West Rutland, VT

Highway Engineer for design and permitting for a new public parking area and pedestrian path connection on a Town-owned parcel. The design included underground infrastructure to make the parking area EV ready and a bioretention area to treat and detain stormwater runoff from the site. The project was managed by the City with support from the VTrans Municipal Assistance Section.

MAS Project: VTrans US 7 Improvements Phase 1 (Segment 6) - Brandon, VT

Member of a team of engineers for the development of Contract Plans for the construction of a critical water supply line under the Neshobe River. The work was planned as part of overall roadway improvements, but the water main construction was fast tracked when the water supply was compromised by damage from Tropical Storm Irene. Mike was responsible for updating construction plans, details, and documents, developing construction cost estimates, and assisting with permitting acquisitions. Challenges included developing details for the river crossing and creating a design that incorporated existing and future underground utility features.

US 7 Improvements, Brandon (Segment 2) - Pittsford, VT

Member of a team of engineers tasked with the development of design plans for this complex, 1.5-mile urban project. Mike was responsible for generating horizontal and vertical alignments that accounted for driveways, walkways, and steps on both sides of the roadway, creating an intelligent 3-D model of the mainline that included ten intersections, and coordinating the roadway with the Pittsford Bridge project. As the utility coordinator Mike designed proposed relocation routes based on VTrans guidance, coordinated with VTrans staff, and met with utility companies in the field to review the proposed design. Challenges included access management, minimizing impacts to adjacent property abutters, and intersection design and modeling.

US 7 Improvements (Segment 3) - Pittsford, VT

Project Engineer tasked with incorporating comments from an independent QA/QC review and developing final plans and developing ROW plans with 47 property owners. Mike was responsible for creating an intelligent 3-D model of the mainline that included four intersections based on a design completed by others. Mike successfully incorporated a significant horizontal and vertical alignment into the design late in the project development. This project included aerial utility relocations; Mike designed proposed relocation routes based on VTrans guidance, coordinated with VTrans staff, and met with utility companies in the field to review the proposed design. Mike coordinated staff to complete quantity calculations for the engineer's estimate, including the checking of calculations.

US 7 Improvements (Segment 4) - Pittsford-Brandon, VT

Highway Engineer responsible for incorporating and finalizing various design changes resulting from independent QA/QC reviews, Right-of-Way negotiations with 29 property owners, utility relocations, and alignment changes. This project included the complete replacement of a box culvert and the extension of two additional box culverts. Mike coordinated design elements of the road with the needs of the box culverts. Mike also coordinated staff to complete quantity calculations for the engineer's estimate.

Derry Street (NH Route 102) Sidewalk and Bike Lane Design - Hudson, NH

Project Engineer on a team responsible for the design of approximately 4,000 feet of sidewalk and bike lane along Derry Street. Responsibilities included coordination with cultural and natural resource agencies. Challenges included minimizing impacts to local wetlands adjacent to the project and developing a solution to avoid impacts caused by an existing gas main.

BUILD and RAISE Grant Applications, Alternative Access to South Commercial Street - Manchester, NH

This project includes roadway, bridge, bicycle and pedestrian infrastructure improvements for a safer, more walkable, bikeable and less congested community, while creating opportunities for future growth. Mike provided research, study of alternative routes, as well as evaluations of options to meet the purpose and need and finally development of the conceptual designs for new roadways, bridges, pedestrian and bicycle routes, to support the winning grant applications. He also participated in the design charette to gather initial public interest and verification of project needs.

Natalie Rigby, PE, PTOE - Key Personnel

Roadway Reconstruction and Rehabilitation Projects and Intersection Projects



With more than 20 years of experience, Natalie leads the firm's transportation initiatives throughout the state of Vermont and is the Client Manager for the Vermont Agency of Transportation (VTrans). Her background includes extensive experience on complex transportation projects. Natalie has expertise in many aspects of roadway design, including horizontal and vertical geometry, roadside design, drainage, signing and pavement marking, traffic control, ROW, specifications and engineering estimates. She has supported numerous roadway projects through construction and leans on that practical experience during the design process. Locally, Natalie is an active member of the WTS Vermont chapter and supports the ACEC Vermont Chapter.

Firm Role

Project Manager | Senior Engineer

Education

Bachelor of Science, Civil Engineering - 2008
Rutgers University

Experience

1 Year with Fuss & O'Neill
22 Years Professional Experience

Licenses and Registrations

NHDOT LPA Certified
Professional Engineer MA
Professional Engineer ME
Professional Engineer NH
Professional Engineer NJ
Professional Engineer VT
Professional Traffic Operations Engineer

Representative Projects:

MAS Project: Airport Drive and Kennedy Drive Stormwater Improvements - South Burlington, VT

Natalie provided project support for development of stormwater improvements that would manage 18.35 acres of runoff. These are two projects located within the same watershed, which necessitates coordination throughout the design process. The Airport Drive stormwater treatment system is an underground infiltration system located on vacant lots owned by the Burlington International Airport. The Kennedy Drive improvements are a retrofit of the existing detention pond into a gravel wetland. The addition of stormwater treatment along Airport Drive reduces the flow to Kennedy Drive, which requires close coordination between the two projects.

VTrans US Route 7 Improvements and Intersection Signals - Swanton, VT

Project Manager for the development of preliminary and final plans for this improvement project for over six miles of U.S. Route 7 and 0.4 miles of VT Route 207. As technical lead, Natalie is responsible for oversight and QA/QC for paving and typical section design, guardrail, sign design, pavement markings including pedestrian and bicycle facilities, and temporary traffic control. The project also includes upgrades to traffic signal operations at three signalized intersections.

Bristol and Ripton Planning Study and Intersection Evaluation - Bristol and Ripton, VT

Senior Engineer for a planning study for two sites for Addison County Regional Planning Commission. Improvements to Harvey Road in Bristol, VT, necessary to upgrade from a Class 4 to a Class 3 Town Highway, including an evaluation of Bridge 00020 and improvements to the intersection of Natural Turnpike and Billings Farm Road in Ripton, VT to address drainage issues. Natalie led existing conditions review and conceptual design of drainage infrastructure and roadway improvements for the Ripton project, and represented Fuss & O'Neill during the municipal coordination process.

Preliminary Assessment of Existing Bridge and Culvert Crossings - Addison, ME

Senior Engineer to develop designs for infrastructure upgrades. Fuss & O'Neill is performing a preliminary assessment of six tidally influenced road crossings that are within the Addison salt marsh project area that also includes identifying the

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recommended next steps to advance the design of specific project elements such as road raising, replacement of road crossings, and modifications to utility infrastructure.

Safety Improvements and Intersection Signal Design - Belleville, NJ

With a previous firm, Natalie served as Senior Transportation Engineer for various improvements to 2+ miles of urban corridor, including pavement reconstruction and resurfacing, utility engineering, drainage, traffic modeling and traffic signal design at 13 intersections, design and grading of curb bumpouts, streetscape and sidewalks including over 80 ADA ramps and staging/maintenance of traffic.

SR. 2023-2025-2071 Pennsylvania Intersection Improvements and Culvert Replacement - Berks County, PA

With a previous firm, Natalie served as Senior Transportation Engineer from project development from Alternatives Analysis phase to Final Design and Construction Support. This project was a reconfiguration of a 5-leg intersection to 4-way SC, and included geometrical and operational Alternatives Analyses, final roadway geometric design, drainage design, H&H modeling, temporary stream diversion, signing and striping and complex maintenance of traffic.

NH Route 101 Major Rehabilitation Project (4R), NHDOT Candia-Raymond 43839 - Raymond, NH

Senior Engineer for the NHDOT Candia-Raymond Major Rehabilitation. Services include milling and overlay to full-depth reclamation of the existing pavement; improvements to superelevation; replacement of all guardrail, curb, and underdrain; clearing; ledge treatment; and significant improvements to drainage including replacement of closed drainage and slope pipes as required, and slipline and other repairs as needed to cross pipes. Natalie is responsible for technical review, oversight of engineers, and quality control for the various roadway design elements of this project.

Community Trail - Dover, NH

Senior Engineer for design of Phase 4 of a multi-use bicycle/pedestrian trail connecting Bellamy Road to Knox Marsh Road (NH Route 155) through Bellamy Park. The project includes approximately a mile of trail, a new pedestrian bridge over the Bellamy River, and trailhead parking.

RAISE Manchester: Connecting Communities - Manchester, NH

Project Manager for the development of PS&E Contract documents for this \$25M project with four unique project elements, including a new vehicular and trail bridge over existing railroad, a new peanut roundabout replacing a large signalized intersection of US Route 3 and NH Route 28, a pedestrian bridge and a new rail trail linking two nearby trails and providing functionality and connectivity to the South Commercial Street corridor. The project significantly increases the accessibility. Since joining Fuss & O'Neill and the project team, Natalie's has performed detailed constructibility and interdisciplinary reviews and she is coordinating internally and with subconsultants to bring the design project to completion and bid.

Harris Avenue and Great Plain Avenue Complete Streets - Needham, MA

Project Manager for Professional Transportation Engineering Services to support the Town of Needham in developing recommendations for Bicycle Accommodations on Harris Avenue and Great Plain Avenue. Fuss & O'Neill is analyzing the current circulation and use of Harris Ave and Great Plain Avenue to develop alternative layouts that include bicycle facilities. The feasibility of various improvements were analyzed and conceptual sketches of alternatives were generated to the Town. Natalie is responsible for design of all project elements and preparation of Contract plans.

Dalton Division Road - Dalton, MA

Project Manager for the design of a multi-modal transportation corridor that enhances an important north-south arterial connecting to Route 8 and community services for residents of Dalton and Pittsfield. This streetscape plan will incorporate the Complete Streets aspects of pedestrian design and walkability features. It will improve bicycle accommodation, public transit, transportation, and vehicular traffic flow, all which will provide safe, efficient, and convenient movement of people (and goods) along this important corridor. As Project Manager, Natalie is responsible for all phases of design via the MassDOT process, and preparation of interim submittals, including permitting and ROW, and final Contract Plans, Specifications and Estimate. The project also incorporates a sanitary sewer design performed by Fuss & O'Neill.

David Munro, PE

Roadway Reconstruction and Rehabilitation Projects



Firm Role

Senior Project Manager |
Highway QC/QA Lead

Education

Bachelor of Science, Civil Engineering - 1994
University of Vermont

Experience

9 Years with Fuss & O'Neill
31 Years Professional Experience

Licenses and Registrations

Professional Engineer ME
Professional Engineer NH
Professional Engineer VT

David has extensive knowledge of AASHTO and state-specific design standards. He ensures quality submittals by providing continual design guidance and support to project engineers working on highway design projects and by thorough review of plans and documents before submittal.

Dave possesses exceptional MicroStation and InRoads skills and is directly responsible for maintaining and enforcing CAD standards. His responsibilities have encompassed all aspects of the design and production of highway plans, including typical sections, plans, profiles, cross-sections, quantity take-offs, cost estimating, and contract documents.

Representative Projects:

MAS Project: VTrans US Route 7 Improvements (Segment 5) - Pittsford-Brandon, VT

Senior Engineer for the development of conceptual and preliminary plans for this 2.4-mile rural project. The work included detailed roadway design, development of maintenance of traffic plans, utility coordination, and development of drainage design with stormwater treatment facilities. This work involved close coordination and numerous meetings with environmental agencies and VTrans staff.

MAS Project: VTrans US Route 7 Improvements (Segment 6) - Brandon, VT

Senior Engineer and Project Manager for development of conceptual, preliminary, ROW, final and contract plans for this one-mile complex urban full depth reconstruction project in the Village of Brandon. The work included detailed roadway design, development of complex traffic control plans, utility relocation, development of culvert and closed system drainage design with stormwater treatment facilities, and development of right-of-way plans. Coordinated with abutting property owners during the preliminary design stage and directly responsible for coordinating with specialist subconsultants in the fields of geotechnical engineering, lighting/electrical design, environmental permitting, landscaping/arborist, and survey. Responsible for preparation and review of permit applications. Preparation of contract plans, specifications and estimate and support during the bidding and contract award. Shop drawing reviews and support to the resident engineer during construction. Close coordination and numerous meetings with the local Steering Committee, environmental agencies, and Town and VTrans staff.

MAS Project: South Street Improvements - South Hero, VT

Senior Engineer responsible for design support and QA/QC relative to hydrology and hydraulic calculations, as well as the design of stormwater collection and treatment systems to meet ANR regulations. This project was managed by the Town of South Hero with assistance from the VTrans Municipal Assistance Section. This project included full-depth reconstruction, reclaiming, and widening along South Street, as well as signing to guide bicyclists from the Village to the Allen Point Access Area Road.

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MAS Project: US Route 2 Drainage Improvements - Williston, VT

Project Manager for a half-mile section of drainage improvements along US Route 2 in Williston. Working for VTrans, our team provided initial coordination and data collection, provided drainage analysis and design, and generated an engineering report that summarized the project area, inspections, condition, and performance of the existing drainage systems based on the drainage analyses.

MAS Project: VTrans US Route 2/VT Route 314 Intersection Improvements and Box Culvert - South Hero, VT

Senior Engineer responsible for design support and QA/QC relative to the roadway and drainage design elements for this intersection improvement project, which included widening for a left-turn lane and for truck turning movements, new islands, drainage improvements (including the replacement of a large box culvert), and stormwater treatment utilizing grass channels.

MAS Project: VTrans US Route 7, Culvert, and Drainage - Brandon, VT

Senior Engineer and Project Manager for conceptual, preliminary, right-of-way, final and contract plans for a one-mile urban full depth reconstruction project. Work included roadway design, traffic control plans, utility relocation, development of culvert and closed system drainage design with stormwater treatment facilities, and right-of-way plans.

MAS Project: Airport Drive Stormwater Treatment System Scoping Report and Final Design - South Burlington, VT

Senior Engineer for development of stormwater treatment system scoping report. The project was located adjacent to Burlington International Airport and has a complex existing drainage system and flat terrain. Project work included conceptual design of stormwater treatment practices to treat a defined watershed area as part of the Potash Brook Flow Restoration Plan within the City's MS4 permit coverage area. The scoping report was used by the City to secure funding for the Final Design of the project. The project has progressed through Preliminary Plans and is currently in Right-of-Way and Final plans are being developed. The Airport Drive Stormwater Treatment and Kennedy Drive Stormwater Treatment projects are located along the same closed drainage system and coordination between the two projects was required.

VTrans U.S. Route 5 Reconstruction and Box Culvert - Lyndon, VT

Senior Engineer responsible for QA/QC for this 0.8-mile full-depth reconstruction project in the Village of Lyndon. The project is in an urban location between two railroad crossings and includes five intersections, a box culvert, sidewalk, a closed drainage system, water and sewer upgrades, pedestrian lighting, stormwater permitting and highway-related items.

VTrans U.S. Routes 4 and 7 – Wallingford, Clarendon, and Rutland Town, VT

As Project Manager and Senior Engineer, responsible for client and subconsultant coordination, layout of new signal equipment, pavement markings and signs, resolution of signal conduit conflicts with underground utilities, and QA/QC of plans, quantities and estimate for replacement of existing span wire signal installations with new mast arm installations with modern signal equipment at three intersections.

VTrans VT Route 14 - Barre Town, VT

Senior Engineer responsible for design support and QA/QC relative to the roadway and drainage design elements for the replacement of a stone box culvert constructed in the 1930s with a new, larger, pre-cast concrete box, reconstruction of 200 feet of roadway, and a two-way temporary detour.

VTrans VT Route 15 Intersection Improvements - Jericho, VT

Senior Engineer responsible for design review and quality control for a 1,600-linear-foot project at the intersection of Vermont Route 15 and Browns Trace Road. The project added a left-turn lane on Vermont Route 15 and a right-turn lane on Browns Trace Road. The design was complicated by two historic properties adjacent to the intersection, aerial/underground utilities, an existing box culvert, a stream, and adjacent wetlands.

VTrans U.S. Route 2/VT Route 314 Intersection Improvements and Box Culvert - South Hero, VT

Senior Engineer responsible for design support and QA/QC relative to the roadway and drainage design elements for this intersection improvement project, which included widening for a left-turn lane and for truck turning movements, new islands, drainage improvements (including the replacement of a large box culvert), and stormwater treatment utilizing grass channels.

Nicole Fox, PE, RSP1 - Key Personnel

Bicycle and Pedestrian Facilities Projects and Transportation Alternatives Projects



Nicole is experienced in all phases of transportation design and planning. Her practice includes rail trail design, new location trails, bicycle and pedestrian planning and scoping, as well as sidewalks and on-road bicycle lanes and cycle tracks. She is a founding member of the firm's Active Design Group, which focuses on designing transportation facilities for all users.

Nicole is a skilled listener and excels at fostering open communication between clients, agencies, and other consultants. As a good communicator and team leader, she has excellent project management skills and experience managing municipal and state projects.

Firm Role

Senior Project Manager | Highway Section Lead

Education

Bachelor of Science, Civil Engineering - 1999
University of Florida

Experience

9 Years with Fuss & O'Neill
27 Years Professional Experience

Licenses and Registrations

NHDOT LPA Certified
Professional Engineer ME
Professional Engineer NH
Professional Engineer VA
Professional Engineer VT
Road Safety Professional

Representative Projects:

MAS Project: South Street Improvements - South Hero, VT

Senior Transportation Engineer for a 2.5-mile road project that included widening the roadway to accommodate both bicycle and vehicular traffic, analyzing the effects of lowering a section of the profile 5 feet to meet AASHTO criteria, and close coordination with the Agency of Natural Resources. To meet the client's funding needs this project was reduced to 1.3 miles.

MAS Project: Pedestrian Scoping Study - Castleton, VT

Project Manager for scoping study to improve pedestrian safety and connectivity within a one-mile corridor of Main Street (VT Route 4A) from Sand Hill Road to the Delaware & Hudson Rail Trail and on South Street from Main Street through the Castleton University campus. The study developed and evaluated three build alternatives to provide various levels of improvement to pedestrian and bicycle accessibility. Study included recommendations for expanded sidewalk and bike lanes throughout the corridor and phasing to assist in project development.

VT Route 100 Sidewalk Design - Stowe, VT

Project Engineer for the preliminary design of two sections of new sidewalk construction on Lower Main Street and Maple Street (approximately 3,000 linear feet). This project was managed by the Town as part of the VTrans Local Transportation Facilities Program. Sections of the project were classified as both State Highway and a Class I Town Highway.

Sidewalk Replacement Study - Stowe, VT

Project Manager to evaluate approximately 15,000 linear feet of sidewalk throughout the Village of Stowe. The project evaluated existing conditions, future needs, accessibility, and materials needed for the project. The team also recommended prioritized actions and areas to address.

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Pleasant Valley Parkway and Broadway Cycle Tracks - Providence, RI

Project Manager for the final design of two urban trail projects in the City of Providence, including a multi-use path in Davis Park and cycle tracks on Pleasant Valley Parkway and Broadway. The design included intersection design, floating bus stops, curb ramps, and traffic signal upgrades.

Blackstone River Bikeway Design - Central Falls, RI

Project Manager for the Blackstone Bikeway Design project and for a proposed multi-use trail adjacent to the Blackstone River. The Blackstone Bikeway project not only included the separated trail, but also redistributed existing pavement to incorporate bike lanes through City streets. Fuss & O'Neill provided base mapping, preliminary design, final design, and performed construction administration services.

BUILD and RAISE Grant Applications, Alternative Access to South Commercial Street - Manchester, NH

The RAISE Manchester: Connecting Communities is a \$25M RAISE grant investment that includes roadway, bridge, bicycle and pedestrian infrastructure improvements for a safer, more walkable, bikeable and less congested community, while creating opportunities for future growth. Nicole provided quality assurance reviews for the design of an intersection reconfiguration with a unique peanut roundabout, rail trail extension, and pedestrian connection improvements across Granite Street. The improvements will increase connectivity throughout downtown, increase safety, and alleviate traffic congestion.

Sidewalk Improvements - Jaffrey, NH

Task Manager for the final design of sidewalk improvements through the town of Jaffrey, along Peterborough Street (US Route 202) and Stratton Road. The project includes more than 3,500 lf of sidewalk, curb ramps, crosswalks, and pedestrian refuges. The project is administered by the New Hampshire Department of Transportation (NHDOT) through its Local Public Agency (LPA) Program and funded through a Transportation Alternatives Program (TAP) grant.

Munger Street Bicycle Scoping Study - New Haven, VT

Provided technical review and process guidance for a scoping study for bicycle improvements on behalf of the Addison County Regional Planning Commission. This project identified and prioritized improvements; included public engagement; assessed historic, archeological, and environmental impacts; and provided preliminary cost estimates.

Pedestrian Accessibility Scoping Study - Pawlet, VT

Project Manager for scoping study to assess the Village's needs and options for improvements to pedestrian accessibility, safety, and walkability in the Village Center. The study determined feasibility of design alternatives to meet the needs of the community and provide a framework for capital planning. Fuss & O'Neill worked with the Town to develop an effective outreach program and choose a preferred design alternative that can be advanced to construction, and ultimately provide improved access and mobility throughout the Village Center.

Pedestrian Scoping Study - Sharon, VT

Project Manager for a scoping project to improve pedestrian mobility and accessibility in the Village of Sharon. This project included the development and evaluation of alternatives to better define sidewalks, improve ADA accessibility, relocate crosswalks, and reduce traffic speeds.

Delaware and Hudson Rail Trail Resurfacing - Southwestern VT

Project Manager for the development of plans for resurfacing 20 miles of rail trail. The Delaware and Hudson Rail Trail includes two segments running from Castleton to Poultney and West Pawlet to Rupert. The project included development of typical sections, trail alignment plans, informational signing, new trailhead parking area, and areas of detailed trail design in the Village of Poultney.

Community Trail - Dover, NH

Project Manager for design of Phase 4 of a multi-use bicycle/pedestrian trail connecting Bellamy Road to Knox Marsh Road (NH Route 155) through Bellamy Park. The project includes approximately a mile of trail, a new pedestrian bridge over the Bellamy River, and trailhead parking. The project is administered by the New Hampshire Department of Transportation (NHDOT) through its Local Public Agency (LPA) Program and funded through a Transportation Alternatives Program (TAP) grant.

Tyler de Ruiter, PE, PTOE - Key Personnel

Intersection Projects



Firm Role

Senior Transportation Engineer

Education

Master of Science, Civil/Environmental Engineering - 2012

University of Massachusetts Amherst

Bachelor of Science, Civil/Environmental Engineering - 2010

University of Massachusetts Amherst

Experience

3 Years with Fuss & O'Neill

14 Years Professional Experience

Licenses and Registrations

Professional Engineer MA

Professional Traffic Operations Engineer

International Municipal Signal Association (IMSA) Level I

Tyler's background includes the peer review of traffic impact and access reports, development and design of traffic calming studies, development of functional design reports and other transportation studies, preparation of technical design plans, and preparation of transportation access and safety evaluations for schools. Tyler has extensive experience in signal design and has worked with a variety of municipalities and state agencies to develop signal plans, including MassDOT and VTrans.

Representative Projects:

US Routes 4, 5, and 7 Signal and Intersection Improvements - Various, VT

Senior Transportation Engineer for improvements to three projects for VTrans (Wallingford, Clarendon, and Rutland Town); Lyndon; and Bradford and St. Johnsbury). Improvements at each intersection include installation of new signal equipment with adjustments to signal phasing and timing to optimize operations for existing traffic volumes. Recommendations consider the context of the intersection relative to the surrounding land uses and the adjacent roadway network.

NHDOT NH Route 108 and Bunker Hill Avenue Intersection Improvements - Stratham, NH

Lead Traffic Engineer for the planning phase of an intersection improvement project in Stratham. The project includes identification and traffic evaluations of improvement alternatives to address capacity concerns at NH Route 108 and Bunker Hill Avenue. Specific considerations include intersection capacity, crash analysis, sight distance limitations, cultural resources, and significant traffic volumes.

North Elm Street Intersection Improvements - Northampton, MA

Developing a plan for two closely spaced intersections adjacent to the High School. Assessment included the conversion of existing unsignalized (two-way stop) intersections to roundabouts or traffic signals. Current design progressing as two traffic signals operating under one controller or two controllers with peer-to-peer features. Considerations include pedestrian and bicycle infrastructure associated with the High School and nearby Colleges.

Bearses Way at Pitchers Way Intersection Improvements - Barnstable, MA

Senior Transportation Engineer for design plans to improve bottleneck conditions at the intersection of Bearses Way at Pitchers Way. Improvements will alleviate the local bottleneck by altering the control strategy and geometry of the intersection.

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Springfield “X” Intersection Improvements - Springfield, MA

Senior Transportation Engineer for the “X” Corridor project in Springfield. Rated as the 16th most dangerous intersection in the State, the City of Springfield sought solutions to address public safety issues, decrease the number of crashes, ease traffic congestion, and create an enhanced “sense of place” by making the area a more walkable environment. The improvements included widening parts of Sumner Avenue to five lanes, adding bike lanes, introducing left turn lanes, installing four new traffic signals, and creating mini-roundabouts at two intersections to create a more aesthetically pleasing pedestrian environment while balancing the needs of motor vehicles.

Upham School Consolidation - Wellesley, MA

As Project Engineer with a previous firm, Tyler performed a high-level evaluation of 22 intersections and four scenarios of elementary school consolidation and redistricting. He was responsible for field reconnaissance of school procedures, data analysis, simulation (Synchro), and presentations at several committee and public hearings

Ricciuti Drive Intersection - Quincy, MA

Senior Transportation Engineer for two potential roundabout options to improve conditions at the intersection of Ricciuti Drive and Willard Street. These sketch-level designs were determined to be the optimal long-term solution after quantitative and qualitative analyses of stop-controlled revised geometry, full signalization, addition of a roundabout, and addition of a roundabout with a bypass lane as potential improvements to reduce crashes, to improve vehicular flow, and to add pedestrian and cycle facilities.

MassDOT Safety Improvements - Various Towns, MA

Senior Transportation Engineer for a MassDOT-led project to quickly implement cost-effective safety solutions at priority locations. The program was started as a pilot in District 5 and is currently in the bid document preparation stage. The individual projects include one-way street designation, advance intersection warning signage, multi-modal improvements, right-in/right-out designation, and traffic calming measures.

MBTA Blue Hill Avenue Bus Priority and Intersection Modeling - Boston, MA

As subconsultant, Fuss & O’Neill provided traffic engineering, bike, and pedestrian services for the redesign of a three-mile stretch of Blue Hill Avenue. Project includes a large Synchro model of 30+ intersections with a mix of coordination schemes. Operational changes include the redistribution of traffic and rephasing of traffic signals to accommodate the removal of side street left turns associated with median separation along Blue Hill Avenue.

Old South Road Corridor Study and Intersection Improvements – Nantucket, MA

With a previous firm, developed several short-term, mid-term, and long-term design concepts to promote traffic calming and improved operations and safety for all users. Responsible for field reconnaissance, data analysis, concept development, simulation (Sidra and Synchro), and public presentation of findings. Concepts included improved bus accommodations (pull-offs) and roundabouts at four intersections.

Route 9 Safety Study - Northampton, MA

Senior Transportation Engineer for traffic study for Main Street, Locust Street, and other roadways along Route 9 in Florence and Northampton, MA. The purpose of this study is to gather and analyze traffic data and develop alternatives that will increase safety for all roadway users in this area, with a focus on pedestrians and cyclists. We evaluated circulation patterns, parking supply and demand, as well as typical daily commuting activity. Recommendations were made to benefit pedestrians and cyclists. Additional improvements included parking, circulation, and the safety and efficiency of traffic operations for vehicles, pedestrians, and cyclists.

Rotary Improvements on Route 6 Rotary - Eastham/Orleans, MA

Senior Transportation Engineer for climate resiliency enhancements to allow Route 6 to function as an evacuation route. Complete street elements will facilitate non-motorized movement around the interchange and connection to the Cape Cod Rail Trail. Traffic safety improvements include pedestrian and bicycle accommodations.

Shannon Beaumont, PE - Key Personnel

Replacement, Rehabilitation, or Maintenance of Bridges and Culverts



Shannon's management experience includes working directly with clients, overseeing the technical aspects of projects, directing the activities of staff engineers, and coordinating with the non-structural disciplines associated with projects. Her years of technical experience include the design of steel, reinforced concrete, and precast concrete structures, bridge ratings and bridge inspections. She is an experienced hydraulics engineer and is proficient at sizing bridges and culverts using accepted methods to calculate flood flows and elevations, including the use of the Army Corps of Engineers Hydraulic Modeling Program HEC-RAS and FHWA's SMS:SRH-2D Riverine Modeling Program.

Firm Role

Senior Project Manager

Education

Bachelor of Science, Civil Engineering - 2002
Tufts University

Experience

9 Years with Fuss & O'Neill
24 Years Professional Experience

Licenses and Registrations

Professional Engineer VT
Professional Engineer NH
NHDOT LPA Labor Comp
Professional Engineer MA
Professional Engineer ME
LPA Certification

Representative Projects:

MAS Project: Route 7 over Neshobe River - Brandon, VT

Project Engineer responsible for the hydraulics and overall structural design of this Municipally Managed bridge rehabilitation. The existing historic twin-arch bridge was rehabilitated and an impervious membrane was installed over the top of the structure to protect it from water infiltration. The existing downstream two-span sidewalk structure was replaced with a single span concrete slab bridge.

MAS Project: US Route 7 Reconstruction and Culvert Design - Pittsford and Brandon, VT

Senior Designer responsible for the project development and the structural design and plan preparation oversight for the replacement of an existing concrete box culvert with a buried 14-foot-span by 10-foot-rise precast concrete box culvert with integral bed retention sills and wildlife shelf with stream simulation extending through the length of the box; upstream and downstream precast concrete box culvert extensions of an existing 4-foot-span by 5-foot-rise buried concrete box culvert; and downstream precast concrete box culvert extension of an existing 4-foot-span by 5-foot-rise buried concrete box with upstream cast-in-place concrete wingwall extensions. Replacements and extensions are required to accommodate a significant raise in the roadway profile through the length of the project. Phased construction methods will be utilized.

MAS Project: VT 131 Culvert Replacement - Cavendish-Weatherfield, VT

Bridge Task Lead responsible for the project development and the structural design and plan preparation oversight for the replacement of an existing buried structure consisting of a stone box culvert at the inlet with concrete box culvert at the outlet with a buried 8-foot-span by 6-foot-rise precast concrete box culvert with integral bed retention sills and stream bed material extending through the length of the structure. A weekend closure with offsite detour was utilized for traffic control.

MAS Project: Roaring Brook Road over Roaring Brook - Barton, VT

Project Engineer for design and plan preparation for the replacement of an single 26-foot-span concrete T-beam bridge on concrete abutments. The replacement bridge consists of 45-foot-long NEXT-D beams on integral abutments with driven H-Piles.

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MAS Project: Middle Road Culvert Scoping Study – Bridport, VT

Project Manager responsible for the development of the Scoping Study for this culvert replacement project. The project will replace twin 6-foot diameter CMPs with a single precast concrete box culvert utilizing a full roadway closure during construction. The project was managed by the City with support from the VTrans Municipal Assistance Section.

MAS Project: US Route 7 Retaining Wall Improvements (Segment 6) - Brandon, VT

Engineer responsible for the structural design of several retaining walls for this roadway improvement project. Two new walls were required to accommodate the roadway improvements, and an existing wall was replaced with a new cast-in-place concrete wall on spread footings.

VT Route 114 over Dish Mill Brook - Burke, VT

Project Manager responsible for the overall design and plan preparation for the complete replacement of an existing 25-foot-long concrete T-beam bridge. The replacement bridge consists of 56-foot-long NEXT-D beams on integral abutments with driven H-Piles.

US Route 2/VT 314 Culvert Replacement- South Hero, VT

Bridge Task Lead responsible for the project development and the structural design and plan preparation oversight for the replacement of an existing concrete box culvert with a 5-foot drop inlet at its upstream invert with a buried 8-foot-span by 6-foot-rise precast concrete box culvert with integral bed retention sills and stream bed material extending through the length of the structure. The upstream invert was re-graded to provide a new stream channel and eliminate the 5-foot drop. Phased construction methods were utilized.

US Route 7 over Furnace Brook - Pittsford, VT

Project Engineer responsible for the complete replacement of an existing two-span 102-foot-long steel girder bridge constructed in 1959. The replacement bridge will consist of a single 75-foot-long steel girder bridge. Bridge construction will occur in 3 phases in order to maintain traffic. A separate temporary pedestrian bridge will be constructed, which will also support a temporary water main.

VT Route 2B over the Lamoille Rail Trail - St. Johnsbury, VT

Project Engineer responsible for the complete replacement of an existing three-span 129-foot-long steel stringer bridge on concrete abutments and piers. The replacement bridge consists of a 48-foot span by 27-foot-rise corrugated steel arch. In order to meet possible future railroad clearance requirements, the arch needed to accommodate a 23-foot tall by 18-foot wide clearance envelope. Large MSE approach wingwalls were also constructed. The bridge is part of the Accelerated Bridge Program and was closed for 50 days during construction while traffic was detoured.

Town Highway 6 over Poultney River - Poultney, VT

Project Engineer working on the design for the replacement of the historic truss with a similar design. The project consisted of a prefabricated truss founded on abutments on bedrock with rock dowels.

Concrete Box Culvert, I-91 over Lake Morey Outlet - Fairlee, VT

Project Engineer responsible for the project definition phase for this bridge replacement project. The project will replace a twin 7-foot diameter CMPs with a single precast concrete box culvert.

I-89 over White River, New England Central RR, and VT Route 107 - Royalton, VT

Project Manager responsible for the project development and the structural design and plan preparation oversight for the rehabilitation of two existing six-span, 917-foot-long steel stringer interstate bridges including full-depth deck and approach slab replacements, joint replacements, extensive structural steel repairs, abutment concrete backwall and beam seat replacements with concrete stem and wingwall repairs, concrete pier stem and pier cap repairs, two concrete pier cap replacements with pier stem encasements, and expansion bearing replacements. This project involved NECR coordination and extensive traffic control with highway crossovers. Additional services included a drone inspection of the superstructure elements and onsite superstructure steel element inspections with the Contractor and VTrans representatives during construction to verify repairs.

Bridge Rehabilitation Projects - Statewide, VT

Project Engineer responsible for overall design, plan preparation, and client coordination for 54 bridges throughout Vermont. Projects included membrane replacement, concrete deck repairs, traffic control, and other rehabilitation work.

Brian Boucher, PE

Replacement, Rehabilitation, or Maintenance of Bridges and Culverts



Brian is responsible for civil and structural engineering design for highway and bridge projects. His coordination and supervision of bridge and highway engineers facilitates comprehensive completion of designs, usually below budget and on time. He has particular expertise in bridge replacement, repair and rehabilitation projects, including the preparation of plans, specifications and estimates for bid packages. His technical oversight and project guidance of structural staff includes bridge replacement design, bridge repair design and bridge structural rating for load carrying capacity, bridge condition inspection and assessment, and recommendations during construction.

Firm Role

Chief Structural Engineer

Education

Bachelor of Science, Civil Engineering - 1993
University of New Hampshire

Experience

2 Years with Fuss & O'Neill
33 Years Professional Experience

Licenses and Registrations

Professional Engineer MA
Professional Engineer NH
Professional Engineer ME
Professional Engineer VT
Professional Engineer CT
Professional Engineer RI

Representative Projects:

Bridge Replacement of Bridge No. S-10-019 Berkshire School Road over Schenob Brook - Sheffield, MA

Senior Structural Engineer for the complete replacement of the bridge with a single span superstructure with span length of 69 feet. The new prestressed concrete NEXT beam bridge has a curb-to-curb width of 30 feet with two 5'-6' sidewalks. The new superstructure is supported by new integral concrete abutments on steel piles.

Bridge Replacement of Bridge No. H-14-001 State Route 8A (Jacksonville Stage Road) over Mill Brook - Heath, MA

Senior Structural Engineer for the complete replacement of the bridge with a single span structure with clear span length of 40 feet. The new precast concrete rigid frame bridge has a curb-to-curb width of 22 feet with no sidewalks. The existing single span structure was constructed in 1928 and reconstructed in 1948.

Bridge Repair of Exchange Street over Millers River - Athol, MA

Senior Structural Engineer for design and construction administration for the repairs of a 150-foot steel thru truss/floorbeam/stringer bridge constructed in 1938. The Town's goals for this project were to strengthen the structural elements such that the load posting could be removed and repair deteriorated elements, as described in the routine bridge inspection. During the inspection phase, the Town determined that additional project improvements should include a new wearing surface, a new paint coating, and new electrical conduit for future festive decorative lighting.

Bridge Replacement of Bridge No. U-02-052, ST 146 Ramp A over Emerson Brook - Uxbridge, MA

Senior Structural Engineer for the replacement of the existing superstructure while retaining the existing substructure. The proposed prestressed concrete NEXT beam bridge superstructure will be supported by the existing cantilever concrete abutment. The existing abutments will be treated with an electrochemical chloride extraction process to protect the existing steel from corrosion.

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Bridge Replacement Pinedale Avenue over East Tully River - Athol/Orange, MA

Senior Structural Engineer for the complete replacement of 52-foot steel stringer bridge with a 60-foot precast concrete arch bridge. The new footings were founded on the salvaged existing abutment footings. This project involved coordination with the two municipalities of Athol and Orange, MA.

Bridge Replacement Donnelly Cross Road over Shaw Brook S-23-015 - Spencer, MA

Senior Structural Engineer for the replacement of the existing structure with a precast concrete 3-sided box culvert with approach wingwalls and new guardrails. The structure is being constructed in stages with alternating one-way traffic patterns controlled by traffic signals.

Bridge Replacement Bridge G-05-001 Concord Street over Walkers Brook - Gloucester, MA

Senior Structural Engineer for the complete replacement of a 14-foot clear span timber beam bridge with a structure including concrete abutments and steel beam span with composite concrete deck. The project is in an Area of Critical Environmental Concern (ACEC). Copious environment coordination is required due to construction in the 100-year Flood Zone. The project is being constructed by the municipality with funding from the MassDOT Small Bridge Program.

Bridge Replacement ST31 North Spencer Road over Seven Mile Brook - Spencer, MA

Senior Structural Engineer for the complete replacement of the existing structure with a 30-foot clear span 3-sided precast concrete box. The project was designed using staged construction and an alternating single lane traffic pattern at the intersection of Hastings Road.

MassDOT Bridge Rating Analysis for Private Truck Transportation Overload Permits - Statewide, MA

Bridge Inspection and Rating Team Leader for many of our private truck overload permits. The work includes checking proposed travel routes, obtaining existing inspection reports and plans, performing field inspections of each bridge to confirm conditions (i.e., section losses, deterioration, etc.) performing live load ratings on bridges traversed by the proposed overload truck route using bridge rating software, recommending permit restrictions and preparing final reports for submission to MassDOT. This work involves inspecting and rating several hundred bridges per year in conformance with the latest MassDOT Bridge Section requirements.

MassDOT Pontoosuc Avenue over West Branch of the Housatonic River Bridge Replacement – Pittsfield, MA

Senior Structural Engineer for replacement of a single-span simply supported 43'-0 7/8" span precast concrete voided slab deck beam superstructure on concrete gravity abutments founded on spread footings with a new adjacent prestressed concrete deck beam superstructure on concrete abutments founded on h-piles or micropiles. Immediately downstream of the bridge is a separate steel beam structure on concrete abutments supporting a building that will remain in place. This structure dictates that the clear span of the new bridge matches the existing bridge, and also complicates replacement of the new bridge substructure. A roadway closure with offsite detour will be utilized during construction. This complex project includes extensive utility coordination, hazardous materials explorations, hydraulic and scour analyses, and environmental permitting.

Katherine Patch, PE, RSP1

Transportation Alternatives Projects



Katherine has an extensive background in roadway design, traffic analysis, and stormwater design. She has a passion for complete streets design due to its inclusive nature, while her own designs are mindful of resilience strategies and economic development potential. Her experience with New England state departments of transportation has given her a thorough understanding of their procedures and regulations.

Firm Role

Senior Transportation Engineer | Project Manager

Education

Bachelor of Science, Civil Engineering - 2015
University of Connecticut

Experience

10 Years with Fuss & O'Neill
10 Years Professional Experience

Licenses and Registrations

Professional Engineer MA
Road Safety Professional

Representative Projects:

Blackstone Bikeway Design - Central Falls, RI

Transportation Engineer for the Blackstone Bikeway Design Project, which redistributed existing pavement to incorporate bike lanes through City streets as well as an off-street, multi-use trail adjacent to the Blackstone River. Fuss & O'Neill provided preliminary design, final design, and construction administration services.

Providence Bike Project Final Design - Providence, RI

Transportation Engineer for final design services for the Pleasant Valley Parkway and Broadway Big Jump Project. This project includes final design, bid documents for on-street and off-street bicycle facilities, and signal improvements in downtown Providence.

Pawtucket Transit-oriented District Improvements - Pawtucket, RI

Transportation Engineer for improvements along Pine Street in a Transit-oriented Development (TOD) District. The design for the Pine Street corridor within Pawtucket's TOD Conant Thread District included roadway lane diets to provide a shared multi-use path to increase bikeability and walkability to the new train station at the terminus of Pine Street. This project also included green infrastructure to address stormwater.

NVCOG West Main Street Corridor Study - Waterbury, CT

Transportation Engineer for a corridor study along West Main Street to address safety and traffic flow concerns. The goal of the study was to identify solutions that will provide improved pedestrian, bicycle, and transit-user accessibility. The Fuss & O'Neill team led meetings, developed presentation materials, and set up correspondence/communication tools for community engagement through a project website, informational graphics, social media outreach, and online surveys. Coordination with the CTDOT was necessary through active participation in a Project Advisory Committee.

Thomas Road Multi-use Path - Groton, CT

Transportation Engineer who assisted a team of senior engineers with reinvigorating a 15-year-old design for a multi-use path along Thomas Road. The scope of this project included producing detailed typical sections of the path, along with all signing and pavement markings according to MUTCD and CTDOT standards and specifications. A

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public culvert for recreational fishing and several types of rail systems used for slope and traffic protection were included within the project limits.

New Park Avenue Transit Area Complete Streets Project - West Hartford, CT

Project Engineer for determining the best uses of the New Park Avenue Corridor with respect to newly opened CTfastrak stations. Utilizing Synchro Professional Software, various roadway layouts were analyzed to determine the best use of space while incorporating transportation engineering principles such as transit-oriented development, traffic calming measures, and complete streets principles for multi-modal uses.

Ricciuti Drive Roundabout Design - Quincy, MA

Transportation Engineer for two potential roundabout options to improve conditions at the intersection of Ricciuti Drive and Willard Street. These sketch-level designs were determined to be the optimal long-term solution after quantitative and qualitative analyses of stop-controlled revised geometry, full signalization, addition of a roundabout, and addition of a roundabout with a bypass lane as potential improvements to reduce crashes, to improve vehicular flow, and to add pedestrian and cycle facilities.

Commonwealth Avenue East Complete Streets Improvements - Boston, MA

Project Manager for complete streets improvements on both sides of Commonwealth Avenue between Carlton Street and Charlesgate East. Improvements include pavement markings, signs, cast-in-place concrete bicycle separation and signal upgrades. Fuss & O'Neill prepared graphics to show pedestrian scale 3D renderings to illustrate the streetscape along the project corridor to assist with public engagement and understanding of the proposed improvements for this project.

MassDOT Complete Streets Assignment 5, Curb Ramp Prioritization - Boston, MA

Transportation Engineer for engineering and technical support to create a prioritization plan for the reconstruction of deficient pedestrian curb ramps (PCR) throughout District 5. The intention of this project is to create a connected network of safe and accessible pedestrian facilities for all. Pedestrian curb ramp deficiencies, both physical and need based, will be used to prioritize various locations throughout the district.

Milk Street Improvements - Boston, MA

Transportation Engineer for the redevelopment of the roadway cross sections for bike lanes, one-way traffic flow, and on-street parking on Milk Street. The project area is part of a large bike network throughout the City connecting users to retail, dining, and historic landmarks. A new traffic pattern was established to accommodate separate bike lanes and increase pedestrian safety with shorter crosswalks and an all-way stop sign.

North Beacon Street Improvements - Boston, MA

Transportation Engineer for the redevelopment of North Beacon Street with the installation of bike lanes and a new crosswalk. North Beacon was identified as an area to further a larger bicycle network throughout the City and better serve all roadway users including pedestrians and cyclists. Improvements include the re-timing of traffic signals for improved efficiency of traffic, upgrade of curb ramps, shortened cross-walks, narrowed travel lanes, and a designated bike lane.

Winship Street Improvements - Boston, MA

Project Manager for transportation engineering services on Winship Street relative to the Neighborhood Safety and Mobility Program. Improvements included an added separated bike lane, a new crosswalk, and improved visibility at crosswalks and cross-streets. This project is part of an initiative to further a larger bicycle network throughout the City and better serve all roadway users including pedestrians and cyclists.

Swansea Mall Drive Improvements - Swansea, MA

Project Manager for the modernization of surface infrastructure assets and re-allocation of ROW space to better accommodate pedestrians and bicycles, and slow vehicular speeds in an effort to increase safety for all users of the roadway through a Complete Streets approach. Fuss & O'Neill assisted the Town in applying for state funding to fund these improvements.

**FUSS &
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